

## Some of the Critical Aspects of Sorgner’s “On Transhumanism”

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### Abstract

In the course of this chapter, I raise some critiques to Stefan Sorgner’s book *On Transhumanism*. I start with a minor point concerned with whether the COVID-19 has changed some of the author’s stand. More specifically, I underline how some positions have been put forward to call for enforced moral enhancement on the population to comply with the requirements of being a “proper” citizen during the pandemic. I then move on with the main concerns I see in the work: the embracement of immortality (even if called differently) as a major goal to seek and the anthropocentric approach to environmental crisis. Through a -limited- analysis of the Western tradition and current trends, I will try to highlight some of the aspects that need attention. Even if evidently with limits, the intention of this work is to underline some of the structural concerns with the Transhumanist projects. Concerns that appear to be quite peripheral to Sorgner’s work, and yet equally inescapable for -after all- the unspoken can still send out a message. Hopefully, in the following pages some of the less evident tracks will emerge in a more vivid framework that will allow the reader (and the author of course) some further investigation.

*Keywords:* Anthropocene, Environment, Immortality, Posthumanism, Transhumanism

In line with the spirit of the workshop in which I was invited to comment on Stefan Lorenz Sorgner’s book *On Transhumanism*, (Sorgner, 2016/2020) with this contribution I will put forward some -hopefully useful- critiques that are likely connected to some of the other points raised in other parts of this special issues by colleagues. My approach will be quite orthodox, stressing mainly two points that I find puzzling in Sorgner’s work—one smaller, one more substantial.

The first one, inescapably refers to the COVID-19 pandemic we are sadly still living in. In the book, it seems pretty evident that Sorgner rejects any argument in favor of enforced (moral) enhancement. For example, the idea of compulsory vaccination is put forward as good option for not forcing behavior on others. However, since the beginning of the pandemic many liberal assumptions on the limits of the State interference have come under pressure—especially in relation to public health ethics. As a result of this (or perhaps just taking advantage of the favorable conditions), some scholars have started arguing building on previous works (Baccarini & Malatesti, 2017) that I have criticized elsewhere (Sirgiovanni & Garasic, 2020)—for compulsory Moral Enhancement (ME) as the only way of ensuring a “proper” reaction from the population in terms of duties towards the community (i.e., by being forcibly morally enhanced people refraining from vaccinating themselves because of a “free rider attitude” would change their behavior to a less selfish one) (Crutchfield, 2020; Savulescu, 2020). I wonder if the pandemic has somehow shaken Sorgner’s view on compulsory use of serotonin, or other enhancers by any chance. How do the choices of individuals need to be bound to that of society?

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I leave those questions open to Sorgner—and possibly the audience—but this relationship between the individual and society as something that is delicate brings me to the second point I want to raise.

## 1. Immortality

The health span (and other terms that are used in the book) referred to even in the vaccine example in the book, seem to refer to self-standing individuals—but that is something I find problematic, especially when evolved into life span extension or quasi-immortality. Sorgner dismisses quite quickly immortality as a “reasonable” term, as our solar system will eventually collapse and so forth and so on, so there is no way we could convincingly expect to live that long. Yet, by doing so, Sorgner avoids also affirming (or not): “We should try and live for 1000 years” for example. So, I wonder if this early dismissal is functional to avoid engaging with one of the most prominent “dreams” for many transhumanists: that is, life extension—if not immortality.

Interestingly, in Spencer Hawkin’s introduction of the English version of Sorgner’s book, there is reference to parabiosis and its revival in recent years by various companies such as *Ambrosia* for example, through the use of plasma from young adults to improve health in the elderly. For those of you not familiar with the term, parabiosis is a medical procedure or experimental technique in which two living organisms are joined together, almost always surgically, so that they can develop single, shared physiological systems (usually a shared circulatory system). Blood exchange (which, for example, occurs ten times a day in joined rats) makes it so that some physiological parameters can be balanced out between the two organisms thanks to the exchange of signal-molecules. In the past, parabiosis was used for various kinds of studies on animals: from those on metabolism to those on diabetes.

Recent studies on parabiosis, conducted with more reliable protocols by combining young mice with older ones, indicate that after a certain time the latter show more stem cells and more neurons, more active synapses, more genes involved in memory processes and, finally, fewer inflammatory processes, which are believed to be among the causes of ageing. It has been shown that there is no significant extra-sanguineous exchange of cells from one organism to another in parabiosis. For this reason, the cause of the observed phenomena (to the benefit of the old and to the detriment of the young) is believed to be the plasma, i.e., the liquid part of blood that contains only proteins and hormones. For example, it has been hypothesized that what is missing in older blood is oxytocin. This led to experimentation with (repeated) transfusion of young plasma into older specimens, avoiding the complex and invasive technique of parabiosis.

## 2. Plasma and Eternal Youth

It is worth pointing out how, in the midst of the pandemic that has gripped us for nearly two years now, we begun to look with hope at the plasma transfusion of subjects recovered from COVID-19 as a valid therapeutic or preventive resource (Duan, 2020). The technique was soon abandoned due to a lack of satisfactory results in this area, but the potential of plasma transfusion has been studied for decades to try to reach the myth of eternal youth through its—possible—regenerative effects. The origin of (young) blood studies dates back to parabiosis—an experimental technique in which two living organisms are joined, almost always surgically, so that they can develop single and shared physiological systems (usually a shared circulatory system). The blood exchange means that some physiological parameters can be balanced between the two organisms thanks to the exchange of molecules.

The first study that has brought forward the idea that young blood transfusion could be linked to longevity is that of Ludwig and Elashoff (1972). More than half a century ago, the two

scientists noticed that older mice (corresponding to 65-year-old humans), when combined via parabiosis with younger mice (corresponding to 20-year-old humans), lived 4/5 months longer than the samples control. But we had to wait until a few years ago for studies to resume, notably thanks to Amy Wagers and others who resumed parabiosis at Stanford University, in Weissman and Rando's lab. Another line of research in this field is due to the Wyss-Coray group (Middeldorp et al., 2016). Studies in elderly mice showed increased neuronal growth and memory improvements after 10 blood transfusions from young mice. According to the researchers, in addition to oxygen, blood carries important messenger molecules. By studying the communication factors in the blood of young and old animals, it was noted that half of these factors change with aging. Very recent research has shown that a protein in human umbilical cord blood improves memory and learning in elderly mice with evident behavioral effects. The team gave umbilical blood to mice of different ages, all of which were designed to have a deficient immune system to avoid rejection of human tissues. After being injected every 4 days for 2 weeks, the blood reactivated neurons in the hippocampus of "elderly" mice (which improved their performance in labyrinth tests).

Definitive results are still far away, but as easily conceivable, the idea of extracting plasma from young blood and then infusing it in the elderly has forcefully entered the range of experimental treatments that promise concrete benefits. With a series of ambitious start-ups aiming to ride this market. For example, Ambrosia has recently attracted a lot of attention. Their research did not need US Food and Drug Administration approval because transfusions are an established medical procedure. The patients included a group of young people who wanted to stay healthy and a group of older people (with Alzheimer's and diabetes) who were looking for an improvement in their condition. The blood was purchased, in line with the law, from donation centers where young people offered their blood for free. In the United States, doctors can easily purchase plasma and ship it frozen, as it is considered a prescription drug.

Despite its alleged success, the FDA placed Ambrosia under observation in February 2019 for lack of scientific evidence. After a few months of very limited activity, the company moved to Florida and returned to operations, only to close completely in August (Brodwin, 2019). Meanwhile, Karmazin (the founder) has created a new company called *Ivy Plasma* (Futurism, 2019), which carries out similar activities, but without explicitly specifying that the blood comes from young donors. Other realities are on the springboard or already in orbit though. Another start-up called *Alkahest* was founded by Tony Wyss-Coray and co-funded by a Hong Kong billionaire whose grandfather with Alzheimer's allegedly benefited from plasma transfusions. The other financier of the project is the *Plasma Company Grifols*, which invested \$ 37.5 million. The experiment carried out and entirely financed by Alkahest consisted in the transfusion of plasma from donors aged 18-30 to 18 Alzheimer's patients once a week for 4 weeks; the goal was to evaluate the safety of the procedure and the possibility of improving cognitive deficits. Subjects with mild to moderate Alzheimer's disease aged 54 to 86 years were treated blindly and one group received plasma, while another group received a saline solution. In November 2017, Wyss-Coray presented the preliminary results of the trial: there were no adverse reactions and patients reported modest improvements in performance related to daily activities, from shopping to preparing lunch.

On another front, Wagers continued his entrepreneurial journey by forming a company called *Elevian* (2021) that now intends to test whether factory-made versions of GDF11 can help treat stroke and other age-related diseases. Although highly controversial, in one study, researchers identified the growth differentiation factor GDF11, which, when infused directly, produced an increase in the muscle strength and tone of the mice. GDF11 has also been shown to be beneficial for the liver, spinal cord and brain, also leading to an increase in olfactory vessels and neurons. At least in rodent models, it would appear, the protein alone can restore a juvenile pattern of blood vessels in the brain after a stroke, as well as promote improvements in motor

control and other physical functions. Elevian raised \$ 15 million last year to further advance the therapy. It is clear that—the rosy expectations of the various companies that are emerging in this new “niche” business should have been confirmed, even partially—the potential for a market is enormous. But equal should be our doubts about the ethical legitimacy of the procedure. From distributive to intergenerational justice, from environmental impact to the existential value of death, there are many uncomfortable questions that people intrigued by Ambrosia & Co. should ask themselves.

The connection between posthumanism, the environment and immortality has also been differently challenged in recent months with the advancements of space travelling and space colonization. For example, one of the private actors more vehemently involved in the rat race to reach the Moon or Mars in stable ways is the billionaire Jeff Bezos, with his company *Blue Origin*. The same Bezos (Hyde, 2021) has also recently been involved in the creation of a start-up that is aiming at tackling aging—another way of saying seeking quasi-immortality.

The underlining reasoning behind such enterprise clearly puts the environment in a subaltern position, as, on the one hand expendable to reach other planets while on the other less central to our concern as the combination of possibly living longer and departing from Earth would decrease our attention towards the preservation of our—currently at least—vital habitat. The problematic and worrying implications of such an attitude towards our planet are something that will deserve more attention in the years to come<sup>1</sup>, but that unfortunately we cannot expand here. The one aspect that I will touch upon in the final section of this chapter however, is the connection between capitalism and our understanding of boundaries—be them polluting Earth, colonizing Space or extend our lives towards quasi-immortality. Many are the issues raised by the possible implementation of such a technique (and life extension more broadly), from intergenerational to distributive justice, from exploitation to global south and global north tensions<sup>2</sup>—and they all have at their center the tension between the single and the community. Hence, what I would like to push on is the relationship between these two entities when we consider life-extension and nature. Before doing that however, I need to take a detour into the building of the concept of nature within the Western tradition.

### 3. Western Tradition, Posthumanism and the Environment

Sorgner sees Spinoza and Nietzsche as proto-Posthumanists, while others disagree (Tuncel, 2017). Either way, there is larger agreement that Posthumanism derives from Western tradition, hence it is very important to underline some crucial aspects, as its roots are solidly based in Western tradition, and it is thus of crucial importance to contextualize its cultural groundworks—especially in relation to the environment. Aldo Leopold (2017), the father of the modern environmental movement, tells us that, on the one hand, ethical evaluations have changed throughout history. We know very well that some “normalities” of the past (i.e., slavery) would not be considered such in contemporary society, hence, the point here is that is now time for humanity to embrace a new role within our own moral code. This, Leopold suggests, would imply moving from an anthropocentric (human-centered) conception of ethics to a non-

<sup>1</sup> I have partially engaged with this issue in a recent article of mine: Garasic, M. D. (2021). The war of ethical worlds: why an acceptance of Posthumanism on Mars does not imply a follow up on Earth. *Medicina e Morale*, 70(3), 317–327. <https://doi.org/10.4081/mem.2021.944>

<sup>2</sup> I have tried to do so in some of my works. In particular, Lavazza, A., & Garasic, M. (2020). Vampires 2.0? The ethical quandaries of young blood infusion in the quest for eternal life. *Medicine, Health Care and Philosophy*, 23(3), 421–432. <https://doi.org/10.1007/s11019-020-09952-5> ; Garasic, M. D., & Lavazza, A. (2017). Why HEAVEN Is Not About Saving Lives at All. *AJOB Neuroscience*, 8(4), 228–229. <https://doi.org/10.1080/21507740.2017.1393027>

anthropocentric (environment-centered) ethics. On the other hand, the role of philosophers, Leopold warns us, is of crucial importance to really solve any issues concerned with changing humanity's relationship to the environment.

The other crucial idea that Leopold puts forward is that philosophers have a duty to guide and shed light to society in relation to what should be considered an ethical behavior towards nature. Philosophers should then help society in reshaping its values, moving it away from its ancestral anthropocentric attitude towards nature. The very nature of this historical fallacy is by many seen in the *Genesis*. In relation to the impact of *Genesis*, in 1967 Lynn White wrote an article in which it was highlighted how the ecological crisis (much less dramatic than the current one) was due to "*the orthodox Christian arrogance towards nature.*" (White, 1967, p. 1205) White's position is that the terrible situation we are living in is due to the structural superiority man has given himself over nature. The specific passage from the *Bible* that environmentalist defending this position point towards is when God gives Adam the power to give names to the other creatures created by him in the Garden of Eden (*Genesis*, 1998). This image, White tells us, pushed humanity to develop the subconscious belief that nature was inherently inferior (*Genesis*, 1998, p. 12), creating a system of moral values that always gives priority to human beings over nature. Yet, even if guilty of having shaped our misbehavior, our moral system could still be redirected towards a harmonious way of interacting with nature White tells us.

#### 4. Time to Reconsider?

Resisting the temptation to oversimplifying the reading of the Judeo-Christian approach to nature, we should recall that some of the main environmental problems ascribed to the tradition (i.e., overpopulation as result of the command "be fruitful and multiply") exist also because of the virtuous attitude humanity has gradually adopted in the course of millennia (i.e., helping the poorest to survive despite a famine). In other words, we should also remember the positivity derived from this cultural heritage. A great example of a religious representative that has immense respect by also non-Christians and non-believers more broadly, is Francis of Assisi. The reconciliation with nature and the refusal of focusing on material richness were (and still are) the central points of the Franciscan doctrine. It was probably for this very reason that he was seen as a danger by the religious authority of that time: he was trying to redirect Christianity towards its real roots, but he was not allowed to do so because it would have meant a loss of power and advantages for the people in charge. Without going any further in analyzing Saint Francis's example, we should only bear in mind that our intention with this example is, aside from showing a positive human representative within a Judeo-Christian background, to underline how very often in the course of history only the people in power are to decide for the masses, many times misinterpreting the very identity of a culture, or the very core of an idea. I am suggesting, not even too subtly, that this is the case of Judeo-Christianity. I will suggest later that this could be the case of capitalism as well. We should of course keep in mind that the main principle that moves a consumerist society is based on profit. Hence, a given society based on such principle will try to buy at the cheapest price and sell at the highest price in the fastest possible way. The problematic situation related to the limits of a proper ecological revolution on the exploitation of natural resources has been analyzed in by Garrett Hardin in his *The Tragedy of the Commons* (Hardin, 1998) where he underlines the danger of accepting a vicious circle of damaging actions against the environment in the name of the liberal market<sup>3</sup>.

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<sup>3</sup> "When resources are unowned or held in common, conservation and preservation may be impossible since it may be individually rational for each to get maximal advantages before the commons is destroyed. This is the "tragedy of the commons," described by Garrett Hardin." (Wolf, 1995, p. 800).

Once again it could be argued that such concern for profit in a capitalist system could never have arisen had it not been generally accepted that a person was entitled to property and capital. This idea could not have arisen if it were not for the Judeo-Christian account of man as separate from, and therefore entitled to "owe", nature. An answer to such critique should not differ from the ones made before. It is undeniable that certain given problems arisen or even created by capitalism find their source in the Judeo-Christian morality and the intention here is not to refuse this idea. The objective is instead to focus on the way of interpreting certain "dogmas". Thus, we shall understand that even if we would take as true that without the conception given by the Judeo-Christian account of man, we would not have been able to conceive a system based on property, we would still not be able to draw a satisfactory line that could let us understand the difference that exists between capitalism and savage consumerism. The reason why we could not draw such line has to be found in the fact that we would be trying to apply a form of evaluation of the value of a system through the eyes of another system. In other words, it would be like trying to measure a distance in liters.

Therefore, the reading proposed here is that the problems of savage consumerism have to be found in a misinterpretation of its former state: capitalism. The parallel suggestion is also that we should accept once and for all that the skip humanity has made in accepting capitalism is a huge turning point, so big in fact that we do not need to go back to find its roots in the Judeo-Christian system every time, for we have accepted that certain values of capitalism could not have been there without that initial spin. Nonetheless, the advent of capitalism should be considered as a starting point in itself, and we should see its initial version as the one to refer to when trying to investigate on its fallacies. It could be seen like the evolution of man: we accept to have evolved from apes, but we think of man as an animal that does not live on trees. We can sporadically recall some resemblance with apes, but most of the time we think of humanity from the moment it started walking on its feet. This is because the similarity apes have to us is much more obvious. We should adopt a similar approach to savage consumerism and capitalism.

This problem of course is easily noticeable when we think of some emerging "markets" (like China or India for instance, as we saw once again the recent COP26 in Glasgow) that do not share a Judeo-Christian cultural background where certain guidelines proposed by high income countries are not accepted by these new realities on the base that this would slow down their developing process (and also that their overall impact on the environmental crisis has been minimal in comparison to the West). This example is only another way of taking into consideration once more the idea of the "tragedy of the commons". From a certain point of view this perception of self-limitations makes absolutely sense and it is true, but, from an environmental perspective this is a very "immature" way of interacting between countries.

In his *Two Treatise of Government* John Locke (1663) writes:

Whatsoever then (one) removes out of the state that nature hath provided, and left it in, he hath mixed his labour with, and joined to it something that is his own, and thereby makes it his property [...] For this labour being the unquestionable property of the labourer, no man but he can have a right to what that is once joined to, at least where there is enough and as good left for others. (p. 329)

This second condition added to the first one that Locke makes which is that a person "may not rightly appropriate more than she can use before it spoils" as Clark Wolf puts it (Wolf, 1995, p. 794), should be seen as the crucial passage to highlight one of the possible developments of capitalism—stressing how this is only one of the ways our society could have interpreted the basic ideas of capitalism, leading us to such a critical environmental situation. In other words, it is not necessarily implicit in a capitalist system to have no respect towards the planet we live in, even though that is the way it is at the moment. As pointed out earlier when mentioning of the importance of the quest of Saint Francis in redirecting Christianity, and as in fact White suggests

as well, our society should finally redirect itself towards the original ideas that were the starting points for the capitalist system we now live in. That is the reason why we shall analyze Locke's conditions closer, coming to the conclusion that savage consumerism would have never been accepted by Locke for its implicit denial of liberalism. Surely, many critiques have been moved against the validity of these preconditions given by Locke, among others there is the argument given by Robert Nozick (2013) which has the intention to invalidate the possibility of Locke's system to be applicable to reality. Nozick's critique wants to point out that it is impossible to define what is the exact amount of "enough and as good" to be left to others. Moreover, he even goes on in criticizing Locke's theory by arguing that even the definition of the others is impossible to reach for we would have to take into consideration perhaps even the unborn, and once having accepted to consider them, how many individuals would we consider to be entitled? How many generations would be "covered" by our will to act in accordance to Locke's view? Such critiques are surely interesting and necessary (issues of environmental and intergenerational justice are very much concerned with discussions surrounding this very topic), but I can only limit the attention to the counterargument that is used against such critiques as one based on the idea that Locke himself thought of the institution of property as a way of improving the amount of resources for humanity and not the other way around. This aspect is a very important part of Locke's theory for it can show how savage consumerism is just a misinterpretation of capitalism. This deeper evaluation of the concept of property rights will argue that it is only this one version of capitalism (savage consumerism) that has led us to live such a dramatic ecological situation, in the same way that capitalism is only one version of the possible interpretation of the Judeo-Christian system of morality. In paralleling the two systems (economical-political on the capitalist side, religious-cultural one on the Judeo-Christian one), a very striking aspect must be stressed: the antithetical system of capitalism, Marxism, can well be considered to be another development of a Judeo-Christian system of morality. In fact, as we already said, one of the most loved figures of Christianity, Saint Francis of Assisi, did not differ very much in his approach to poverty from a Marxist approach. It would appear hence that, if not contained by an appropriate contextualization of the concept of self-property (extendable even to life itself when we talk about immortality for example), the risk that liberalism and consumerism carry with themselves—in contrast with nature and sustainability—are quite high<sup>4</sup>, especially when considering the raise of commercial enterprises aimed at "governing life" like the examples we mentioned above.

## 5. The International Dimension of Seeking Immortality

In the very last page of the book, Sorgner (2020) writes—I believe not incidentally:

The preceding reflections do not represent a radical critique of the technological development of the digital world. This process is also partly responsible for the fact that the average life span in Europe, North America, and Australia has exceeded eighty years, whereas in Nigeria, one of the world's poorest countries, it is about fifty years. (p. 105)

So, it seems clear that he is well aware of the huge difference in average life span across the globe. What I am less clear about is what is the proposal to counter such a disparity—and in doing so, what would be the priority: ensuring a longer life-span of human animals throughout the planet or not? In other words, is it possible to reconcile seeking immortality with a non-

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<sup>4</sup> 4 In relation to the issue the possible moral requirement to put a cap to the length of our lives see: Di Paola, M., & Garasic, M. D. (2014). The Dark Side of Sustainability: Avoiding and Shortening Lives in the Anthropocene. *RIVISTA DI STUDI SULLA SOSTENIBILITÀ*, 2, 59–81. <https://doi.org/10.3280/riss2013-002004>

anthropocentric stand? Sorgner's position seems very sympathetic towards non-human animals (in theory potential beneficiaries of transhumanism as well), yet I find it hard to see where there is room for this reconciliation between the life extension of human animal individuals and the care of the environment in Sorgner's account. Although there is no direct engagement with the discussion on the impact of Anthropocene, it is worthy taking into consideration how within the Posthumanist spectrum of positions in relation to the environment, there are two opposite groups.

On the one hand, you have a group of Posthumanists that see the opportunity through technology (be it blood, plasma, space travel and so on) to keep on shaping nature in line to our preferences and needs. A criticiable approach that we have shown to be often connected to the Judeo-Christian system of morality but that seems instead to fit better with a socio-economic system like the hyper-individualistic and consumeristic one we live in. The idea is overcoming nature because we have to and are meant to. We have to go beyond ourselves and continue progressing into Posthumanity. For those however, the embracement of any technology as a confirmation of our superiority—bound to become inferiority towards transhuman or posthuman. In this case the strive for longevity or immortality is consistent and understandable, but it becomes harder to see why we should care about non-human animals. If you like, this is also seen as an evolutionary process.

On the other hand, other Posthumanist positions would want human agency to disappear into an all-encompassing, broadly shared and communicating nature. For this version of Posthumanism, human centered supremacy is what really threatens life, nature and the meaning of our endeavors—hence the most valuable way of improving [our] life's conditions is by removing humanity from the center of the focus. It follows that the idea of extending human life seems meaningless in more than a way, while the prioritization of human needs over that of non-human animals is just seen as unacceptable.

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