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Transhumanism According to Stefan Lorenz Sorgner: Why the Posthuman Project Requires Responsibility and Empathy

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Abstract

Unlike the traditional conception of humanism, transhumanism, posthumanism, and metahumanism defend a new understanding of humanism. They construe human beings as entities that can no longer be ontologically distinct from other living beings. But even if these conceptions put forward a more modest conception of human beings than the one we find within the more traditional humanistic paradigm, they support the desirability for and, in part, the necessity of modifying human nature. By comparing with the emerging technologies permitting humans to be enhanced, Stefan Lorenz Sorgner's book *On Transhumanism* introduces the moral debate within transhumanistic thinking, showing this new cultural trend's complexity and philosophical richness. After demonstrating the weakness of the main objections to human enhancement, the article confronts Sorgner's philosophical proposals and his suggestion to conciliate, in metahumanism, the transhumanist theoretical conception with the posthumanist one. Even though we share the choice to concede central value to (negative) freedom, we will maintain that reflection on enhancement should also consider the theme of responsibility and, in particular, debate the duties towards those we put into the world. In conclusion, we will state that a conception recognizing the importance of feelings and empathy is more capable of questioning the traditional humanistic model.

Keywords: transhumanism, bioethics, enhancement, genome editing, responsibility, human embryos

1. The Posthuman as a Survival Project

The pandemic we are experiencing has made one thing clear: that we are highly vulnerable entities that can be threatened and swept away by a virus that may at first glance seem harmless but actually holds lethal force. In recent years, discussion of bioethics has concentrated on the possibility of using the new technologies (not only pharmaceuticals but also genome editing and avant-garde artificial limbs) to enhance human abilities and dispositions: in the period of Covid-19, it is urgent to launch a reflection on the essential contribution science and the biotechnologies may give not so much to our enhancement (which would still be auspicious) as to our survival (Germani, Wäscher, Biller-Andorno, 2021; Rabiah, 2020). It is not the first time that moral philosophy and bioethics have discussed the possibility of using genetic modification techniques to make human beings able to survive in a less and less hospitable environment. In an article from some years ago, Liao, Sandberg and Roache (2012) suggest turning to genome editing to replan human beings and make them, if not more sensitive to the environmental crisis and climate change, then at least more adapted to living (surviving) in a polluted and warmer climate with decreasing resources. According to Persson and Savulescu (2012), solving these

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emergencies requires moral bio-enhancement. Only by enhancing our ability to empathize will we worry over the future and (therefore) have reason to change our lifestyles, modify that behavior at the basis of the environmental crisis. Indeed, it is one thing to sympathize with an individual person before us (and with whom we can interact); it is another to get in tune with the feelings of billions and billions of people who have yet to be born. Only through an intervention to replan human nature will we succeed in extending our imagination and feeling solidarity and compassion towards people who are so far away and unknown. But suppose moral bioenhancement failed to work or we were able to modify our behavior. In that case, we could turn to genome editing to make human beings smaller (for example, a few centimeters shorter) or significantly reduce their daily water and caloric requirements and make them intolerant to animal meat—in that this would appreciably decrease animal breeding (Liao, Sandberg & Roache 2012). Other solutions that have been suggested to harder to realize but could still be explored: for example, we need light to see at night, so if we were—like cats—able to see at night too, we could significantly reduce electric energy consumption (Liao, 2017).

On the other hand, it seems harder to think that photosynthesis could be a feasible solution, in that, to reduce solar energy and the quantity of heat necessary for our maintenance/requirement, human beings would have to be completely different, with a far broader body area than the current one. Before these scenarios, which smack of science fiction, suggesting turning to genome editing to make human beings more resistant to coronavirus seems not only more acceptable (we are, ultimately, used to vaccination, and many of us have already been vaccinated—not once but twice—against coronavirus), but also easier. But even this case would mean intervening to replan human nature, not for therapeutic ends, but simply to enhance or improve our resistance.

There is no point assuming a position against any intervention to replan human nature on principle. Even though it is not difficult to find positions against human (bio)enhancement in the current debate, most criticism is only rhetorically strong because they lack cogency (Buchanan, 2011; Balistreri, 2020). Sorgner is right: anyone thinking it is wrong to modify genetically or replan human nature does not understand that human beings are already (bio)enhanced, or rather, human beings have always been posthuman. This seems to be the central point distinguishing the positions of those who defend the posthuman, whether or not they then define their transhumanist, posthumanist, or metahumanist perspective. Anyone taking evolutionism seriously agrees that human nature is not steady or immutable; that is, it is not only the advent of biotechnology that changes our ('natural') abilities and dispositions, in that cultural and social changes may be just as deep as bio-medical ones for us. We are-Allen Buchanan reminds usthe product of processes of literacy, numeracy and the institutions we invent to regulate (and coordinate) our social life, in that they change our conception of ourselves, our world and our interpersonal relationships: "Taken together—writes Buchanan—literacy and numeracy are profound and far-reaching cognitive enhancement. Computers, building on the platform of literacy and numeracy, extend human cognitive capacities even farther" (Buchanan, 2011, p. 38). For this reason, it is wrong to think that biotechnologies place us before a completely new scenario, in that we have always remodeled human nature. "Thus, it is quite misleading to say that it is only now, in the age of molecular biology, that human beings are able to change themselves irreversibly" (Buchanan, 2011, p. 40). So, one may discuss—as Sorgner explains which is the ability that is currently preferable to subject to modification; is it better to improve cognitive or physical abilities, correct our moral dispositions or extend life expectancy? There may also be different positions among supporters of the posthuman. However, we are not obliged to preserve this particular (and current) conception of human nature, and the opposite could only be held by one entrenched in a pre-Darwinian conception of human beings. For example, Michael Sandel has stated that any project to replan human nature is unacceptable. It can only be the expression of a lack of humility and respect towards nature. A virtuous person-Sandel states—has no desire to control what happens naturally but can enhance what nature produces and thus open up to the unexpected: "This takes us back-states Sandel-to the notion of giftedness. Even if it does not harm the child or impair its autonomy, eugenic parenting is objectionable because it expresses and entrenches a certain stance toward the world—a stance of mastery and dominion that fails to appreciate the gifted character of human powers and achievements and misses the part of freedom that consists in a persisting negotiation with the given" (Sandel, 2007, p. 83). The point is that there seems to be nothing virtuous in trusting blindly in the forces of nature and, even if it were possible, give up interventions that could improve the lives of the people we put into the world. And it is not true that behind a parent's choice to modify (enhance) their child's genetic heritage—interventions of this type are not yet clinically possible, but we are trying to imagine the future—there may be, as Sandel suggests, only such motivations as the search for perfection or immortality. At the time of genome editing, a patient could feel the responsibility to turn to these interventions simply because they are worried about the wellbeing of the child to be born and intends to ensure them with a 'decent' existence. Ultimately it is what any person choosing to have a child has—since the dawn of time—been trying to do: over time, the means change, but the basic objective remains the same. After all, the irresponsible thing is not to choose to turn to genetic modification techniques (we are, of course, assuming that these techniques are safe and there are no unjustified risks for the child to be born) in comparison to trusting the destiny of the child to be born to the blind forces of nature. Hopping there will be no unfortunate events. Sandel urges the cultivation of a feeling of respect (and of humility) towards nature and (for) giving up any plan to control natural processes (that is, being able to open up to the unexpected). However, in this context, we may consider the pandemic we are experiencing as an example or paradigm. Letting nature choose could have dramatic, irreversible consequences for others. That is, it is not by opening up to the unexpected that we show we hold the wellbeing of those we put into the world at heart, but by conserving the ability to choose and use the means (and the bio-medical technologies) responsibly. Then there is no risk that, by turning to genetic modification interventions, we cancel human essence. Francis Fukuyama has stated that the most serious problem with the biotechnological revolution is that it could irreversibly do away with the very features and essential properties of our humanity:

And what is that human essence that we might be in danger of losing?—Francis Fukuyama wonders—For a religious person, it might have to do with the divine gift or spark that all human beings are born with. From a secular perspective, it would have to do with human nature: the species-typical characteristics shared by all human beings qua human beings. That is ultimately what is at stake in the biotech revolution. (Fukuyama, 2003, p. 101)

But the problem is that it is far from clear what these essential features of our humanity might be. In other terms, we could hold completely different positions on what distinguishes us as human beings and fail to lay down objectively, or at least convincingly, what the best proposal or position might be. Further, our ideas about what is essential may just refer to prejudice or habit. For example, before assisted reproduction, sex may have seemed an essential feature of reproduction, but today—after over forty years' assisted reproduction—our perception is completely different. In the long run, interventions to replan or modify the genetic heritage could radically change future generations' beliefs about what is truly essential in a human being. Further, Jonathan Glover (2006) is right when he says that we should keep the question regarding what is essential (in human nature) separate from what is worth preserving/safeguarding, in that a thing may be essential but not worthy of (or deserve) being safeguarded. There may be aspects of human nature (like, for example, aggressiveness, a limited ability to empathize with strangers, etc.) which we may wish to eliminate or at least correct. In this way, we also respond to those thinking that replanning human nature in any form necessarily implies a form of instrumentalization of the person born with an enhanced genetic code. It would be right to talk of instrumentalization (of the person born) if we turned to genetic modification interventions only to fulfil a desire we have, or rather to model a vet-to-be-born child born to our pleasure. In this case, the parents would be treating the child born more like an object (and a product) than a person. But there is no instrumentalization if the parents turn to genetic modification interventions only to ensure greater giftedness, hence higher chances of having a decent life, to the child coming into the world. On the contrary, this seems a morally appreciable choice because it favors the person's wellbeing. We can, then, minimize the risk that the person born with a genetic code modified (by third parties) may feel like a puppet in the hands of others and have the impression they cannot lead an authentic life. The parents may also choose the genetic heritage. Still, they cannot determine or program life in that each of us can choose whether (or not) to cultivate certain dispositions and abilities. That is, one born with a modified genetic heritage cannot be a slave to their parents' planning (therefore, their condition cannot even remotely be compared to a slave's), in that genetic heritage is only a part of our history and does not determine our behavior. Further, if the child born with an enhanced genetic heritage were deprived of their freedom, then so would each one of us, in that no one has the chance to choose their genetic heritage. The thesis that biotechnologies would impose a new form of slavery has not only been supported by Habermas (2013): Leon Kass (2004) also states that enhancement interventions radically change our relationship with actions, turning us from main players (and the authors of our actions) to mere observers of what we do. In both cases, we face an idealization of technologies that we do not even find among transhumanists. So, one imagines that it is sufficient to correct or insert some genetic sequence to obtain the desired result (for example, significant physical or cognitive performance or the development of a certain type of character). The problem is that a certain type of genetic heritage can ensure a particular giftedness (or predisposition). Still, then—as we said—only the subject may try to take advantage of it in the direction they prefer. If there is a lack of willingness or adequate environmental conditions, any programming will be in vain. The transhumanist plan Sorgner presents has been able to work out a convincing reply to the positions from the more conservative sources of the current bioethics debate, demonstrating the ineluctability of the posthuman, and most of the previous considerations are a part of any transhumanist's critical thinking. There are differences, Sorgner explains, in how transhumanists conceive of the posthuman, in that the posthuman can design both an exceptional species compared to human beings and the conclusion of a journey that-passing through humanity's current conditionthen allows the building of a new man (or rather, has him born). In these terms, the transhuman would be a member of the human species in its journey towards posthuman realization. Whichever conception of posthuman is preferred, what counts—as Sorgner reminds us—is that, from the transhumanist perspective, the posthuman is something desirable and worth creating: "From my point of view—Sorgner states—the meaning of the posthuman can be understood only if one acknowledges that it is a meaningful concept, which gives meaning to life for scientifically oriented people" (Sorgner, 2016/2020, p. 71). A project of this type indeed has nothing therapeutic about it, so it no longer concerns the field of medicine. Morally, however, there is no point in making a distinction between therapeutic and improvement interventions. Indeed, if we consider the therapeutic use of biotechnologies approvable because it promotes people's wellbeing, we should all the more accept (or consider compulsory) the use of these very technologies for improvement purposes, in that sometimes only enhancement (or improvement) allows the quality of life to be improved.

2. Freedom or Responsibility?

Sorgner states the wish to defend a perspective able to go beyond the opposition between transhumanism and posthumanism: "It champions weak versions of posthumanism and transhumanism, strives to establish a relation and dialogue between both discourses, and at the same time represents an alternative to them" (Sorgner, 2016/2020, p. 41). Sorgner explains essential differences between transhumanism and posthumanism (for example, transhumanists have a linear way of thinking, use technical terms and adopt or refer to scientific methodology, while posthumanists have a non-linear way of thinking and defending hermeneutic methodology). Further, transhumanists stress the importance of reason and truth, whereas posthumanists believe reason only plays a practical function and (that) we should therefore resize the importance of reason. The fact that a tool is more efficient does not mean it can offer the best world understanding: "it follows from this insight that the limits of the possibility of reason must be taken seriously: reason helps us pragmatically, but it is not able to communicate the truth to us in correspondence with reality" (Sorgner, 2016/2020, p. 51). For example, regarding the question relating to the possibility of accessing truth, posthumanism does not recognize any progress in current natural science conclusions regarding Medieval Christians' judgements (on the world). In other terms: with regard to ultimate truths-Sorgner states-"it is unclear from a posthumanist perspective whether the natural sciences, whose insights are accepted by many contemporary people, or Christianity, which was the prevailing worldview in Europe one thousand years ago, provide us with their insights" (Sorgner, 2016/2020, p. 55).

The metahumanism defending Sorgner intends to go further and beyond a dualistic conception of humanism: "(meta can mean 'beyond'), but it also occupies a position between posthumanism and transhumanism (meta can also mean 'in the middle of ') (Sorgner, 2016/2020, p. 41). That is, "metahumanism strives to mediate among the most diverse philosophical discourses in the interest of letting the appropriate meaning of relationality, perspective, and radical plurality emerge (Sorgner, 2016/2020, p. 41). Mediation is possible—states Sorgner—embracing certain aspects of transhumanist and posthumanist thinking within a theoretical perspective able to distance from 'classical' humanism. According to Sorgner, it is right to recognize that reason can carry out a basic practical function—"namely because the use of reason helps us in coping with our worldly challenges" (Sorgner, 2016/2020, p. 51)—but one must embrace the posthumanists' warning and give up forever the belief one can grasp truth. Further, together with hermeneutic methodology, we must accept the dissolution of the subject-object distinction, which is—in line with Nietzsche's thinking—the other aspect distinguishing postmodern thinking. And, morally, Sorgner suggests integrating a weak version of transhumanism with a weak version (of) posthumanism (Sorgner, 2016/2020, p. 54): this means giving up, on the one hand, moral and legal duties and, on the other, questioning—via legal reforms—the centrality of human beings. Indeed, for Sorgner, transhumanism can, in a weaker version, recognize the value and importance of enhancement technologies without thereby needing to state that people have the moral (or legal) duty to turn to these means to 'improve' their life or their children's: "A weaker understanding of transhumanism posits that enhancement techniques only promote the likelihood of many people leading a good life without necessarily requiring that transhumanist insights entail legal and moral obligations" (Sorgner, 2016/2020, p. 54).

On the other hand, weak posthumanism does not need to draw legal conclusions (or implications) from a theoretical perspective stating that there are only differences of degree, not ontological ones, between the different entities: "A weaker version of posthumanism—states Sorgner—would argue that humans may indeed be distinguishable from other natural beings only by degrees, but it would not require that this insight results in legal reform" (Sorgner, 2016/2020, p. 54). Sorgner's attempt to integrate the transhumanist perspective with the posthumanist one is original. One can share the skepticism towards reason as an ability allowing

us to reach truth and the rejection of human beings' exceptional character compared to nonhuman animals. For example, Sorgner states that "Nonhuman personhood and the overcoming of speciesism, however, affect not only the human-animal relationship but also the human-machine relationship", (Sorgner, 2016/2020, p. 90). The important point here is the value attributed to freedom as the absence of (negative) interference and the stance in favor of technologies allowing the modification and enhancement of humanity (not only genome editing but also artificial intelligence and any other technology available). But I am not sure that, before unprecedented technological development that for the first time allows replanning human nature, reflection on the responsible use of biotechnologies may be given up. Sorgner is right when he savs that it is correct to recognize the existence of a radical plurality of the 'good', given that human beings display very different perspectives, lifestyles, preferences and desires. However, this does not mean that it is impossible to put forward considerations of a moral character regarding the use of enhancement technologies that may have an, if not objective, at least universalizable character. Indeed, once we have access to technologies allowing the modification of human nature, we will be able to significantly and irreversibly condition the life of the people we put in the world. It would be ingenuous to think that the parents' love—and experience suffice to face these scenarios and that it is not necessary to take further the question of responsibility towards the people we put in the world. Given these options, writes Sorgner:

It seems most plausible to claim that genetic enhancement and parental guidance usually bring about better results for the offspring than the alternatives since the qualities brought about through enhancement are based upon parental choices that are normally made based on experience. Parents usually love their children and want them to have the best possible starting points in life. Of course, parental decisions do not always produce good results. But as a rule of thumb, parental influence most often leads to better outcomes than those from chance or without any guidance. Parents uphold qualities on the basis of their experience, and having experience in the context of ethical decisions is necessary for making good ethical decisions. (Sorgner, 2015, p. 34)

It is not simple to establish what type of responsibility we have towards those we put into the world, but this is precisely why we should not circumvent the problem but analyze it in all its complexity. Obviously, the parents' choice must be free and aware: but this is not enough, in that a responsible parent should pay attention to the consequences of their choices and, for example, not have a child born who could risk having a life that is not unlivable but still full of torment and suffering. Even though we are not obliged to select (or bring into the world) the best child (Savulescu & Kahane, 2009), we should not perhaps make do with our children simply having a 'life worth living', in that life can continue to be worth living even in a condition of extreme suffering (Balistreri, 2021). Ensuring the child born with a good chance of having a good life seems a more responsible solution—at least in those circumstances where parenthood is a question of choice and not destiny or an imposition (Steinbock & McClamrock, 1994). Indeed, any discussion on moral responsibility (at the time of genome editing) may seem superfluous if we start from the idea that no genetic condition prejudices the chance to have a good life. This is, for example, the position defended by those stating that disability is nothing but a mere difference: there is dangerous rhetoric—say Barnes (2014; 2016) and Garland-Thomson (2011; 2012; 2017)—accompanying the debate on genome editing techniques, hindering – correct – reflection on the right to turn to it. Indeed, it is not true that these procedures are always desirable because they would spare the one coming into the world suffering or adversity that would otherwise limit their opportunities and condition their life forever. The thesis is that the disabilities would never be (for the subject involved) defects or disadvantages (that is, penalizing conditions), but mere differences: that is, features—writes Barnes (2014)—like sexuality, sex and race. If they make existence much more difficult, this only depends on the fact that social prejudice encourages stigma towards the disabled or at least makes it more difficult for them to

achieve full integration. But Sorgner is a metahumanist who vigorously defends the value of genetic modification interventions, so he should consider a parent's choice not to turn to this technology morally debatable. Yet Sorgner seems more interested in stressing (negative) freedom rather than responsibility. The problem of disability is that the disadvantages associated with it do not always have a social explanation. Some conditions still involve suffering or hinder the subject from having an autonomous life, irrespective of society's ability to be sensitive and open to different conditions of humanity. For example, some conditions oblige regular self-subjection to invasive, debilitating operations: also, some (particular) physical and/or cognitive conditions are incompatible with a certain type of experience. Furthermore, it would be challenging to build a society welcoming of any condition (or body). What may be an obstacle for one person may be an advantage for another. Even, if possible, it might still have high costs and remove economic resources from other areas.

The value of freedom seems central, especially in choices for enhancement regarding only the agent (in that it seems fair for choices regarding one's own life to be left to the subject's discretion). But even in this scenario, there appears to be room for reflection on the theme of moral responsibility. The question is not only that (genetically) enhanced people could raise the social yield. The enhancement and genetic modification (or replanning) of human beings also seem—as we have seen—to offer a beneficial (as well as cheap) solution to climate change and the pandemic crisis. The hypothesis is simple: the more people choose to turn to genetic enhancement or modification (for example, accepting genetic intervention modifications making them far more resistant to coronavirus), the more chance there will be to solve the problem or at least approach a definitive solution (Lehmann, 2017). So, the idea is confirmed that adequate reflection on human enhancement may not be limited to stressing only the value of negative freedom: it should also face the theme of responsibility. Buchanan has stated that, in consideration of the advantages that may come to social cooperation, the state may be justified in encouraging people to turn to (bio)enhancement interventions "by providing subsidies, tax credits, or other incentives to encourage people to have the enhancement (Buchanan, 2011, p. 50). In fact, according to Buchanan, the very reasons justifying obligation for education can also justify obligation for genetic modification interventions, designed to improve personal abilities and dispositions: "The justification-states Buchanan-offered would be indistinguishable from that which is used to justify education, immunization, and basic health care" and obligation (or at least some forms of encouragement) may see "that every citizen has the capacity to be an effective participant in social cooperation" (Buchanan, 2011, p. 51). This is not the place to embrace Buchanan's invitation and ask whether a liberal democratic society may be morally justified in imposing—by law—a program of human (bio)enhancement. It is sufficient to observe that, even if it is true that democratic and pluralistic societies may have difficulty converging on the same program for human (bio)enhancement, in some instances (for example, think again of the vaccination against coronavirus), the objective could be reached far more quickly. After all, here, we are mainly interested in showing that the question of (moral) responsibility is far from marginal but central in any discussion on improvement biotechnologies. This means that reflection on the posthuman should not be limited to defending the value of negative freedom.

3. Reason or Sentiment?

Regarding moral (bio)enhancement interventions, Sorgner does not believe that scientific and technological development will in the short term permit the realization of interventions able to make future generations more moral. "Transhumanist proposals in which moral (bio)enhancement plays a central role thus strike me as implausible" (Sorgner, 2016/2020, p. 87). He does, though, think that there is a relationship between cognitive and moral improvement

(Sorgner, 2016/2020, pp. 86-87). Consequently, enhancement in cognitive abilities may indirectly lead to moral improvement: "If there is indeed a causal connection between moral and cognitive developments, and the data just mentioned suggest this insight, then the promotion of cognitive enhancement could also indirectly enhance morality" (Sorgner, 2016/2020, pp. 86-87). According to Sorgner, reason would perform a central function for morality, in that it is reason that would allow the development over time of those rules or principles favoring cooperation. The emphasis Sorgner gives to thimportance of reason for morality does not stand in contradiction to his considerations regarding the limits (and the partiality) of our rational abilities, in that—as we saw previously—he recognizes that reason may perform an important function practically. Further, a rationalistic conception of morality seems coherent with the naturalistic reconstruction he puts forward and with a conception of human nature that is compatible with an evolutionistic scientific explanation (Sorgner, 2016/2020, p. 34):

Transhumanists embrace a scientific, naturalistic, and worldly understanding of the human, and therefore they must reject the modern understanding of the human as paradigmatically represented by Descartes and Kant since an ultimately naturalistic anthropology does not provide for the possibility of the existence of nonmaterial reason. (Sorgner, 2016/2020, p. 51)

However, it is legitimate to ask whether, in assigning a central role to reason in explaining morality, Sorgner does not remain linked to a conception of humanism that he considers no longer acceptable. If—as Sorgner writes—it is true that the philosophies going beyond humanism put forward a more modest conception of human beings, in that they no longer consider human beings ontologically different from, nor better to other living beings (Sorgner, 2016/2020, p. 32), then the role of reason should also be questioned. There is an essential philosophical tradition connecting morality not to reason but sentiment and sympathy. Darwin was convinced that the key to the evolution of morality lay not in reason but sympathy. Any philosophical conception that questions humanism should consider it carefully, in that it can reduce—even morally—our (alleged) distance from other living beings. Explaining morality with sentiment and sympathy does not mean giving up the objectivity of ethics, nor does it mean giving up the possibility of continuing to have a reflective or critical look at one's own behavior: it simply means adopting a different model (or anthropological paradigm) of human beings. Sorgner is mainly concerned about questioning the idea that reason may arrive at a truth that corresponds to reality, but this does not force him to leave some practical function to reason: "Instead, it follows from this insight—says Sorgner—that the limits of the possibility of reason must be taken seriously: reason helps us pragmatically, but it is not able to communicate the truth to us in correspondence with reality (Sorgner, 2016/2020, p. 51). It is not with reason but through sentiment and the imagination, wrote David Hume, that we build and give stability to our relations of cause and effect, for it is only because we have in the past experienced a repeated connection that our mind can pass from one idea to another happily. In reality, Hume stated, there is no objective necessity that on the appearance of the first phenomenon that usually accompanies it should follow. It is we who on perceiving an object pass at once to the second and believe that the second must manifest itself: "When therefore any object is presented, which elevates and enlivens the thought, every action, to which the mind applies itself, will be more strong and vivid, as long as that disposition continues" (Hume, 2005, p. 69). The key is the lively passage from the first idea (or thing) we observe to the one we have always seen connected:

Hence it happens, that when the mind is once enliven'd by a present impression, it proceeds to form a more lively idea of the related objects, by a natural transition of the disposition from the one to the other. The change of the objects is so easy, that the mind is scarce sensible of it, but applies itself to the conception of the related idea with all the force and vivacity it acquir'd from the present impression. (Hume, 2005, p. 69)

In other terms, if the objective is to promote surpassing an 'idealized' conception of the human, then we should not stop at Nietzsche. This is because Hume could give an even more significant contribution, in that, in contrast to Christian anthropology, he explained that reason is and must be a slave to passions.

4. Conclusions

Before unprecedented scientific and technological development promising to transform the world radically, Sorgner's book allows a critical discussion of the rapidly opening scenarios, starting from a reflection on the cultural and philosophical movements defending the value of (and, in part, need for) the posthuman. Thus, the book not only offers a clear introduction to transhumanism but also provides an opportunity to consider the moral questions lying more and more at the center of public debate (and bioethics). The question is not so much whether human (bio)enhancement is desirable but morally acceptable. Sorgner hypothesizes that turning to increasingly innovative technology will occur anyway, as what type of enhancement we should hope for and what kind of moral responsibility this enhancement presupposes are other questions. Sorgner's book does not claim to offer a definitive reply to these questions, but clearly and convincingly explains why we should not be afraid to replan our world with biotechnology.

References

Balistreri, M. (2020). Superumani. Etica e potenziamento. Edizioni Espress.

- Balistreri, M. (2021). Il bambino migliore? Che cosa significa essere genitori responsabili al tempo del genome editing. Fandango (forthcoming).
- Barnes, E. (2016). The minority body: A theory of disability. Oxford University Press.
- Barnes, E. (2014). Valuing Disability, Causing Disability. *Ethics*, 125(1), 88–113.
- Buchanan, A. (2011). Beyond humanity? Oxford University Press.
- Fukuyama, F. (2003). Our posthuman future. Consequences of the biotechnology revolution. Farrar, Straus and Giroux.
- Garland-Thomson, R. (2017). Disability bioethics: From theory to practice. *The Kennedy Institute of Ethics Journal*, 27(2), 323–339.
- Garland-Thomson, R. (2012). The case for conserving disability. Journal of Bioethical Inquiry, 9(3), 339–355.

Garland-Thomson, R. (2011). Misfits: A feminist materialist disability concept. Hypatia, 26(3), 591–609.

- Germani F., Wäscher S., & Biller-Andorno N. (2021). A CRISPR response to pandemics? Exploring the ethics of genetically engineering the human immune system. *EMBO Reports*, 22(3), e52319, 1–4, DOI: 10.15252/embr.202052319.
- Glover, J. (2006). Choosing children. Genes, disability, and design. Oxford University Press.
- Habermas, J. (2013). The future of human nature. Polity Press.
- Hume, D. (2005). A treatise of human nature (1739-1741). D. F. Norton & M. J. Norton (Eds.). Clarendon Press.
- Kass, L. (2004). Life, liberty & the defense of dignity. The challenge for bioethics. Encounter Books.
- Lehmann, L. S. (2017). Is editing the genome for climate change adaptation ethically justifiable? AMA Journal of *Ethics*, 19(12), 1186–1192.
- Liao, M., Sandberg A., & Roache, R. (2012). Human engineering and climate change. *Ethics, Policy and Environment*, 15(2), 206–221.
- Liao, M. (2017). Tackling climate change through human engineering. In A. De Grey, J. Rossiter, J. A. Paradiso, K. Warwick, H. Shah (Eds.) *The next step: Exponential life* (pp. 274–293). BBVA.
- Persson, I., & Savulescu, J. (2012). Unfit for the future. The need of moral enhancement. Oxford University Press.
- Rabiah, Y. P. (2020, December 8). Opinion: Editing the DNA of human embryos could protect us from future pandemics. *The Conversation*.
- Sandel, M. (2007). The case against perfection. Ethics in the age of genetic engineering. Harvard University Press.
- Savulescu, J., & Kahane, G. (2009). The moral obligation to create children with the best chance of the best life. *Bioethics*, 23(5), 274–290.
- Sorgner, S. L. (2015). The future of education: Genetic enhancement and metahumanities. *Journal of Evolution and Technology*, 25(1), 31–48.

Sorgner, S. L. (2020). On Transhumanism: The most dangerous idea in the world?! (S. Hawkins, Trans). Pennsylvania State University Press. (Original work published 2016).
Steinbock, B., & McClamrock, R. (1994). When is birth unfair to the child. Hastings Center Report, 24 (6), 15-21.