## Neuroethics and Religion: some Jewish thoughts A response to Alberto Carrara

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n the course of his interesting paper, Alberto Carrara raises a number of important points. Though unable to provide a deeper analysis in this occasion, in this brief response, I will focus on some of those points. Hopefully, the insights provided will be sufficient to expand the discussion on Neuroethics and Religion - in the specific building a number of bridges between Catholicism and Judaism vis-à-vis Transhumanism and Posthumanism. Out of intellectual honesty, I should state upfront that I will do so with the awareness of having to rely more on my expertise in bioethics than of Judaism. I will begin my analysis of Carrara's work from his conclusions, to than gradually move back to the main body of his paper. Aside from other bullet points, the Catholic perspective is so summarized by Carrara:

- As bodily components, the DNA and the brain are fragile and perishable.
- Many neurological disorders have a genetic underpinning.
- Previously intractable to the approaches of human genetics, disorders of the brain are seeing accelerated gene discovery that was, until now, restricted to other branches of medicine. [...]
- What is starting to emerge from these recent advances is that the genetic architecture of common brain disorders is exquisitely complex and heterogeneous. Translating these discoveries into a better understanding of disease etiology and the generation of

new drug targets represent important challenges for neuroscience research.

Thus, altering the DNA of a fetus to avoid a genetically induced illness (gene therapy) would not be permissible in Catholicism, but new drugs targeting the same condition after birth would be seen favorably. My understanding of the distinction is that the former situation would undermine the "authentic development" (to apply the terminology used in the paper) of the human as whole (body and soul) decided by God, whereas the use of drugs would only be seen as a postbirth therapy.

Yet, this scenario could be one in which both the biological (especially the chemical reactions in our brain) and our mental -or spiritual- status could be altered in ways that would render us inauthentic<sup>1</sup>, making unclear the boundaries of such a distinction.

I leave this question open for Carrara to answer, but two more of his last points need to be underlined before being able to move the current discussion further:

- So, for a Catholic perspective, neurogenomics interventions have to be focused on the diagnosis, treatment and management of neurological disorders, and not to foster idealistic perspectives on man's nature evolution, such as, those promoted by the Trans and Post-Humanism Project.
- Genetic and neuroscientific research and their clinical applications will really benefit our society and the developing countries if it will be taken into account an integrative, non-reduc-

tionist and non-materialistic perspective of human being.

Concerning the first point, it is important to note that Carrara introduces the definitions of Transhumanism and Posthumanism<sup>2</sup>. Although it would have been useful if he had directly referred to those terms earlier in the paper, their presence -and reference- represents the backbone of some positions considered by the author. Even if not acknowledged explicitly. And we should dwell into those shortly. As for the second point, the relevance given to developing countries connects the debate to the socio-political sphere of investigation too often forgotten in debates on neuroethics. Hence, the issue of justice will also be considered in what follows.

To begin with, there is an important aspect that should be taken into account when assessing how neuroscience is impacting modern society. Whether in a more or less direct way, Posthumanist and Transhumanist ideas are increasingly influencing our interaction with each other: be it through the use of performance enhancers (of various type and in different contexts) or "aesthetic adjustments" aimed at increasing our appeal to -romantic and professional- partners, the slogan of the modern world is evermore that of "if you can improve yourself, do so".

Jewish tradition (be it reformed, conservative or orthodox) tends to be more supportive and encouraging towards the use of advancement in science -inasmuch as there is basically no difference between prevention and treatment in a medical sense- than Christianity (the distinct approaches of the two traditions towards reproductive technologies is a good example). Still, it should not be forgotten that such tolerance is based on a willingness to preserve, improve or defending life (*pikuach nefesh*) as much as possible -but it does not imply an abandonment of other precepts that might be ranked lower in the list of priority but are still important.

As a result, scenarios that do not deal with life in any biological sense -such as cases of aesthetic enhancement for instances – are open to interpretation. For example, Shimon Glick underlines how<sup>3</sup> there has been large agreement among Rabbis to see cosmetic surgery as in line with the Halachic law as able to ensure a psychological relief for the person undergoing the operation. However, the way society is pushing towards a rat race on enhancement, risks to confuse our stand on when to tolerate an enhancement – and when not. Should we endlessly seek to adjust our looks so to fit a uniform conception of beauty and thus feel more accepted by the others? Such a widely spread projection does not seem to be a scenario in line with the ethical guidelines in Judaism (as enhancements here seem to be the root of the problem rather than its therapy).

In analyzing the trajectory that has established enhancement at the center of modern society, Carrara writes:

The neurogenetic-industrial complex thus becomes ever more powerful. Undeterred by the way that molecular biologists, confronted with the outputs from the Human Genome Project, are beginning to row back from genetic determinist claims, psychometricians and behaviour geneticists, sometimes in combination and sometimes in competition with evolutionary psychologists, are claiming genetic roots to areas of human belief, intentions and actions long assumed to lie outside biological explanation. Not merely such long-runners as intelligence, addiction and aggression, but even political tendency, religiosity and likelihood of mid-life divorce are being removed from the province of social and/or personal psychological explanation into the province of biology. With such removal comes the offer to treat, to manipulate, to control. Back in the 1930s, Aldous Huxley's prescient Brave New World offered a universal panacea, a drug called Soma that removed all existential pain. Today's Brave New World will have a multitude of designer psychotropics, available either by consumer choice (so called 'smart' drugs to enhance cognition) or by state prescription (Ritalin for behaviour control).

This is not a particular new stand in the science *vs* faith debate, but the view embraced by particularly enthusiastic human enhancement supporters – that of Trans/Posthumanism – has a number of elements that makes it more of a secular faith than an ideology.

The most relevant one for the present discuss I believe, is represented by the apocalyptic envision of the future world - a common element to both Christian and Jewish faiths and here re-elaborated so to favor a specific approach to biochemical and mechanical technologies.

As highlighted by Hava Tirosh-Samuelson, the ultimate goal of Transhumanism is that of creating the conditions to complete "the transition from biological humanism to mechanical Posthumanism"4. Building on literature from supporters of Posthumanism, he stresses the secular faith dimension of the Posthumanist ideology, underlining the apocalyptic elements at its core. Christianity -like Judaism before it- expects a final war (Armageddon) to bring peace, justice and wealth to the world. Posthumanists promise (and hope for) the same results, but through a different path: that of direct self-improvement. Such enhancements, require a gradual detachment from our biological body to allow us to enter what is called in the literature the Virtual Kingdom. The irreversible turn that will lead way for this kingdom to be reached will be when machines will be able to teach themselves making humans redundant. At that moment, we will be forced into the Posthuman -mechanized- Mechanical Age, the initiating state of the Virtual Kingdom<sup>5</sup>.

Though sharing some rather typical futures of the apocalyptic traditions, the detachment from the body that Posthumanists wish for clashes harshly with the Judeo-Christian tradition, where the body (with all is limits) is as important as the mind/soul.

This connects well with what Carrara writes:

The second main evidence about man is his/ her unity as a living being, in his/her intrinsic dual composition of co-principles, namely "body" (the material co-principles) and "soul" (the immaterial and transcendence coprinciple). Getting rid of the physical body is then to be seen as a way of distancing ourselves from God, not the opposite.

Concerning the second point raised earlier, Carrara goes on highlight issues of justice through considering cognitive enhancers later in his paper:

If diagnosing children with ADHD really does also predict later criminal behavior, should they be drugged with Ritalin or some related drug throughout their childhood? And if their criminal predisposition could be identified by brain imaging, should preventative steps be taken in advance of anyone actually committing a crime?

Carrara's account of cognitive enhancers fits well in the critique of Posthumanist values -and looking into them more in depth might be even more damaging towards our human nature, as they require us to accept this ratrace towards "more" in a way that affect also our brain, not only our body.

Here, I would like to stress how the (mis) use of cognitive enhancers in various competitive contexts (Ritalin is widely used by college students across the Western world to increase their marks in a hyper-competitive market)<sup>6</sup> might be approached by the Jewish tradition. In particular, the notion of *tzedaka* comes to mind. Differently from *caritas* (where helping the others is based on love), *tzedaka* is centered upon the idea of justice. In addition, the way in which we perform the helping action is more important that the impact of that action. This derives from the idea that we need to respect each person equally.

Hence, not only we should refrain from allowing cognitive enhancers to increase the gap between rich and poor, but we should also not allow medicalization to blind us -and force us to accept preemptive discrimination as morally sound.

To conclude, it is useful to look into the three conditions he lists behind the Catholic perspective on neurogenomics. First of all, technology, in particular, neurogenomics has to be considered a product of a God-given human creativity in order to modify nature for useful purposes and then overcome material limitations.

Second, neurogenomics can produce important means of improving the quality of human life.

These first two conditions are very much in line with Judaism. We should use our creativity to make the world better (the notion of *Tikkun Olam* -repairing the world- evolves also around the challenging condition that God is good and righteous but that the world is imperfect and to be improved), as well as apply technological advancements to improve our condition. Hence, the idea is that therapeutic use of neurogenomics is usually praiseworthy.

Third, neurogenomics can give us tremendous power that needs to be well directed because it is overwhelmed evident that technological products are not neutral."

This last condition seems to overlap strongly with a biblical reading (that is, common to both Christians and Jews) of how we should relate ourselves to those biotechnological advancements. We should not alter human nature beyond the point of no return, because we would end making future generations in the image of man and not of God as instead wanted.

This is the position expressed by Hans Jonas, a famous Jewish thinker of the past century that engaged with the discussion on why is it important not to change humanity beyond a certain point<sup>7</sup>, and who considered forms of enhancement such as aesthetic enhancement (i.e. rhinoplasty) as "frivolous."

The idea probably deriving from the awareness that the "need" to change one's nose for the sake of being more aesthetically pleasing is contingent to a society that wants to obliterate our uniqueness while claiming to enlarge our choices. In addition, in the Jewish tradition the body is only "borrowed" from God -making tattoos, piercing ears and other voluntary incisions on the body (aside from the *brit mild*<sup>8</sup>, the ritual infant circumcision, that is seen as a form of human creativity) are unacceptable, as we should make sure to return our body to God as we received it. Interestingly, this could imply a condemnation of aesthetic enhancements of any sort, and could lead us to believe that other versions of enhancement would not be tolerated either -unless just therapeutic.

## NOTE

<sup>1</sup> I have partially discussed elsewhere the issue of drug-induced altered authenticity in relation to responsibility. See: M.D. GARASIC, "The Singleton case: Enforcing medical treatment to put a person to death," in *Medicine, Health Care and Philosophy*, 16/4 (2013), 795-806.

<sup>2</sup> Though different definitions refer to these two terms, it is generally accepted (and certainly here) the former to be related to the process of "overcoming humanity", while the latter focuses of this being the goal.

<sup>3</sup> S.M. GLICK, "Some Jewish thoughts on genetic enhancement," in *Journal of Medical Ethics*, 37/7 (2011), 415-419.

<sup>4</sup> H. TIROSH-SAMUELSON, "Utopianism and Eschatology: Judaism Engages Transhumanism / Transhumanistic Imagination," in CALVIN MERCER - TRACY TRO-THEN (eds.), *Transhumanism and Religion: The Unknown Future of Human Enhancement,* Praeger, 2014, 161-180. <sup>5</sup> R.M. GERACI, "Apocalyptic AI: Religion and the Promise of Artificial Intelligence," in *Journal of the American Academy of Religion*, 76/1 (2008), 138-166.

<sup>6</sup> M.D. GARASIC - A. LAVAZZA, "Moral and social reasons to acknowledge the use of cognitive enhancers in competitive-selective contexts," in *BMC Medical Ethics*, 17/1 (2016), 18.

<sup>7</sup> H. JONAS, *The Imperative of Responsibility: In Search of Ethics for the Technological Age*, The University of Chicago Press, 1984.

<sup>8</sup> M.D. GARASIC, "In defence of male circumcision," *Monash Bioethics Review*, 31/1 (2013), 60-69.