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Is human enhancement a sustainable agenda?

Track 1: Converging technologies and human enhancement

I try to find a path from recent philosophy of technology to the fundamental issues of sustainability—issues that I do not consider to be ultimate questions, but hints at the question of wisdom in a technological age.
Basically, human enhancement involves a technophilic stance and a tendency to transhumanism. In contrast, sustainability issues are usually characterized by a moderate technophobic stance and a classical humanistic trend. But I believe that a new global set of common values is forming in both directions and I try to merge the two paths.

Converging and enhancement: teleology?

Whereto are converging technologies converging? To enhancement, certainly, improving and integrating devices to heighten their availability and efficiency. But this meaning cannot be directly applied to the human. Nevertheless, in a previous analysis of evolutionary trends in technology,[1] I suggested that artifacts converge toward a greater proximity to the human in a twofold trend:
1) proximity to the human body in strongly integrative devices, always smaller and closer to the body, quasi-prosthetic and maybe intracorporeal nanotechnologies in the future.
2) proximity to the human mind through 'intelligent' interfaces, always smarter and easier to use software and networked information.
What is forming is a *Homo Sapiens Technologicus*, forming at least as an image at the focal point of our coevolution with artifacts. But this convergence trend provides a hardly acceptable meaning for 'human enhancement'[2], in particular because teleology must be more explicit, and probably voluntarist, in a human enhancement program.

Teleology is a complex matter[3]. What form of teleology suits human enhancement? …and converging technologies?
1) An *essentialistic teleology* for human enhancement would need a prior notion of the human essence. I see no option but a dogmatic ideology to provide this essence. From Hans Jonas to Leon Kass, technophobic and bioconservative literature insist on the teleological argument from a human essence that we have to "protect" and not to "enhance". They might have a transcendent access to this human essence, without which, however, regular humans have to turn to:

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[1] Puech Michel, *Homo sapiens technologicus. Philosophie de la technologie contemporaine, philosophie de la sagesse* contemporaine, Paris, Le Pommier, 2008, p. 77-78.
[2] My reference on human enhancement are Savulescu Julian, Bostrom Nick, ed., *Human Enhancement*, Oxford U.P., 2008; Kurzweill Ray, *The Singularity is near: When Humans transcend Biology*, Viking Penguin, 2006. See in particular Bostrom Nick, Roache Rebecca, "Ethical Issues in Human Enhancement", in : *New Waves in Applied Ethics*, ed. Jesper Ryberg, Palgrave Macmillan, 2007 - www.nickbostrom.com/ethics/human-enhancement.pdf.
[3] See Hartmann Nicolai, *Teleologisches Denken*, Berlin, De Gruyter, 1951; Spaeman Robert, Löw Reinhard, *Die Frage wozu? Geschichte und Wiederentdeckung des teleologischen Denkens*, München, Zürich, Piper, 1981.

2) A *melioristic* teleology, in which human enhancement and converging technology roadmaps could belong to a global sustainability policy and ethics. *Melioristic* progress does not require a knowledge of the end (the perfect theory, the perfect human, the perfect device) but a finite assessment procedure in order to determine whether state (b) is better than state (a) or not. Meliorism is a teleological *engine*, it permits a genuine progression, enhancement or improvement.

Our coevolution with artifacts (and nature) can be analyzed as a melioristic teleological process.

Is "enhancement" a translation of the Greek "arete"?

In the first centuries of philosophy, the quest was about *arete* (αρετή), human excellence: what is the most valuable possible form of human life? Warrior, poet, politician, lover…? Plato's first "Socratic" dialogues are our best testimonials of this search.

But this quest lost its meaning when philosophy in the West became a search for Truth, reaching a first climax with religion and a second climax with science. The very word, *arete*, translated by "virtue", lost its meaning and slowly decayed into an obsolete reference[4].

Today, do we have a new value system to replace the old one? Yes, we do. It stems from the overwhelming success of technoscience. It is intensely pragmatic and everyone believes in it: efficiency, progress, enhancement.

The equivalence between human excellence as *arete* and today's notion of human enhancement deserves more consideration. Four ancient notions may also be helpful for the new one.

1) *Paideia,* education. Forming a man was the greatest task in Greek civilization[5]. Human enhancement in its broader and pre-technological sense is education. In this sense, enhancement of the human is a valuable translation of *arete*-building.

2) *Praxis*, human action relating to internal ends of the agent (and not only technical means and external objects or goals). Our technology is a *praxis* and not only a *technê* or a *poiêsis*. Human enhancement is a *praxis of the self* in the ancient sense, recently revived by Michel Foucault (*le soin de soi)* and the ethics of care.

3) *Eidos*, the Idea or essence of the thing, which is its *telos* (end, internal goal) in Aristotelian metaphysics, and before was its excellence in Plato's essentialism. In Plato's mature works, the essence is the answer to the question concerning excellence, as Plato relies on a metaphysics of transcendent and preexisting order[6]. A clearly essentialistic teleology closes the debate on *arete*.

4) *Eirôneia,* irony, the Socratic way of asking questions, maintaining a quest, invigorating personal examination and the search for authenticity—in a very critical mood, insolent, absolutely skeptical, exactly the opposite of the ideological essentialistic stance. In the philosophical quest for excellence, today, I believe that Socrates's question stands firm, while Plato's answers fade away. When inventing philosophy, *arete* was *a question*, and it still is one, because of the present need for a new wisdom for the technological age. We do not have the answer in advance.

Human enhancement, thus, can be defined as a *praxis* of *paideia*, a practical education of the self, not according to an *eidos* (a preexisting essence), but in the ongoing process of questioning. But the technological dimension has been lost in this translation of *arete*. Let us try to recapture it.

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[4] "Virtue ethics" gives a brilliant new life to the word, but in academic circles only, so far. Cf. MacIntyre Alasdair, *After Virtue: A Study in Moral Theory*, Notre Dame U.P., 1981, 2nd ed. 1984.

[5] See Werner Jaeger's masterpiece *Paideia. Die Formung des griechischen Menschen*, 1933, repr. Berlin, Walter de Gruyter, 1989, English translation, *Paideia: The Ideals of Greek Culture*, Oxford U.P., 1939.

[6] Krämer Hans Joachim, *Arete bei Platon und Aristoteles. Zum Wesen und zur Geschichte der platonischen Ontologie*, Heidelberg, Carl Winter, Universitätsverlag, 1959.

Technical enhancement and the hermeneutics of the better and best

Technology is not only a branch of our multifarious activities, it shapes our world-image and our value system. *Enhancement* is a project embedded in both.

A tempting agenda is to think of the human as a candidate for enhancement, like any other "thing" in the world, from cars and cattle, to computers and crops. My point is to argue that in so doing, we do not select *enhancement* from a range of possible projects. We just apply the function "enhance" to the variable "human".

A better hermeneutics for "better and best" may be found in the context of reconsidering sustainability. In this context, we have realized lately that we just cannot carry on improving devices and enhancing things, at least in the industrial way we used to. This applies to enhancing the variable "human": technical enhancement of the human (by tools and devices) is less and less the common implicit agenda but rather poses a question. Then it happens that this question concerning technology intersects the path of the ancient quest for *arete*. "What is best?" is not only an engineering concern.

At this crossroad, transhumanism must be taken into consideration. Ray Kurweil's or Nick Bostrom's statements, considered from the point of view of sustainability issues, appear typical of the industrial era. This view gives no reason to discard transhumanism, it just gives an interpretation of a common perception of it. If transhumanism sounds like an extremism, even in its more cogent and reasonable versions, it may be because it sounds like the final extrapolation of the industrial logic of development and technical improvement, the ultimate R&D frontier, in a singular and provocative application to the human. The recent shift to a new set of values leaves this project on the fringe whereas it should be mainstream in an industrial era. Actually, these science-fiction dreams made true are something *of the past*, an old agenda, the agenda of the industrial era. No longer a sustainable agenda.

This value shift can be resisted, of course, but I will not, for definite reasons. The *arete* doctrines have given birth to a degenerative logic of power, war and competition: *arete* was at first excellence in sports[7], but we spoiled it with doping technologies promoting a rigged show-business industry still called "sport"; *arete* was at first the spirit and skills to protect the City and its laws, but we spoiled it with asymmetric war technologies enabling the rich to terrify and dominate; and *arete* as a qualification for power was ruined by Plato himself, in the biofascism of the enhanced City according to the *Laws*.

This "industrial" logic of *better* and *best* disqualifies enhancement as a value in itself. A new logic of sustainable options will take over.

Human sustainability, the notion we need

I humbly wish to suggest that the new sustainability-oriented logic of *better* and *best* is capable of updating the human enhancement agenda. Concerning *enhancement,* let us stress again the imperative of *education* (*paideia*), improvement as *Erziehung* in German and *inaltiare* in Latin : to grow, to grow up, to heighten. It means improvement, certainly, but not exactly and not only improvement: the forming of a new entity, the human, starting from its bare biological potentiality. From an Aristotelian point of view, the change from *possible* to *actual* is certainly an "enhancement" of the possible, but not exactly an "improvement" of it.

Enlightened modernity doesn't claim to know the essence of the human, but starts with a definition of the project for the *growth* of humanity: education, emancipation, progress, and

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[7] Miller Stephen G., *Arete: Greek Sports from Ancient Sources.* A 2nd and expanded edition, California UP, 1991.

knowledge giving us the power to change the real world. We do not rely on enhancement as a value-in-itself. Instead we try to apply a pluralistic view of human essence, nature, and project: let the human grow. In this context, sustainability logic is now demanding to replace enhancement logic. From the point of view of this value shift, *enhancement* as a value in itself (whatever the enhanced might be) is a flagrant case of non-sustainability.

However, do we have to conceive the *limits to growth*[8] in human enhancement? Ray Kurzweill's book on Singularity bore the subtitle "When humans transcend biology". When to "enhance" means to "transcend", the question may be one of limits. On the other side, bioconservatives want to enforce transcendent limits. Thereby, transhumanists and bioconservatives are on opposite sides of the same battlefield of *transcendence*.

Sustainability issues conceived as wisdom queries suggest that the question of limits is not about transcendent boundaries and transgressions, but about the assuming self and responsible communities. It is a question of pragmatic wisdom and not of transcendence. The difference must be made clear. Determining what to care about, what is important[9], can now be put forward as the method of sustainable ethics at the individual level. This deliberation is necessarily prior to any enhancement and it is questioning enhancement as a program. To put this deliberation in action, every step in our coevolution with artifacts must be analyzed in terms of a transactional model. Not as an *enhancement*, but as a change we have to negotiate—in terms of gains and losses we are ready to assume. For some of us, these possible and unacceptable losses would include humility, respect for the given, love for nature, emotional sensitivity to the importance of the instant…

Let us first take a technological case, the Internet. We enhance our human (extrasomatic) capacities with the Internet. We can negotiate: what are the values, the trends, the ends, of the Internet? At the beginning, they were collaborative information exchange. Now, they are universal access to cultural contents. These are sustainable ends because they support self-building capacities as well as democratic and humanistic collectives without depriving anyone, present or future, of anything. What are the losses? Disembodiment, depersonalization, and the generalization of a surveillance society. Assuming and compensating theses drawbacks is part of a well-balanced sustainable agenda. So the Internet is something we can care about.

Now to human body enhancement technologies, old and new. Gandhi did not care at all about his teeth. His smile was terrible at the end of his life because of lacking teeth. He did not find enhanced chewing and smiling with artificial teeth important enough. One of our real transhumans, pop star Michael Jackson, apparently made a different choice considering anything he could enhance in his body[10]. Two figures of the human collide here. Or else they represent the extremes of the deliberation, in everyone of us, about enhancing our physical appearance. Gandhi's teeth we cannot sustain, but what about Jackson's nose or lips? Cosmetic hair implants or male hair dyeing are current examples of a shifting limit on this Gandhi/Michaël Jackson scale. Negotiating these change transactions is one aspect of the task of *being a self* in the times of technological affluence. This is exactly the problem we have to address philosophically.

As a conclusion, it seems obvious to me that (1) human body *enhancement* is already a basic common practice, and that (2) *wisdom* to manage enhancement is the question.

Satiety and frugality belong to the new set of values required for these deliberations. Satiety is the experience of having enough, the experience of an acceptable and not-to-be-enhanced state.

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[8] *The Limits to Growth* was the title of the 1972 Club de Rome (or Meadows) report, a milestone in sustainability awareness.

[9] Frankfurt Harry G., *The Importance of What We Care about*, Cambridge U.P., 1988.

[10] Ray Kurzweil is an equivalent case study, with his "aggressive" personal biochemistry: 250 supplement pills a day and six intravenous therapies each week (Kurzweil Ray, *The Singularity is near: When Humans transcend Biology*, Viking Penguin, 2006, p. 211).

Frugality is the self-management of one's satiety experiences, the ability to put a limit to the possible[11].

The value is not only and not necessarily perfect tomatoes, perfect hips, and for obvious reasons: that everyone should have the biggest car, the best job, the supreme power… just doesn't make sense, from a logical point of view. *Sustainable excellence*, in a self-determined frugality program, may be the new form of *arete* for the technological era. The core ethics of wisdom lies in the difference between this *sustainable excellence* and an *optimal enhancement.* I want to suggest that this wisdom addresses the question of "how to be a consistent self in the times of technological affluence".

The question is no longer about limits—where are they and are we entitled to cross them? It is about *who* negotiates the transaction: is it a self-reliant person[12], with all the capacities acquired through education and information, in a fair and loving environment? It must be a capable person in charge of his/her own frugality, and who can negotiate his/her own change transactions[13].

Therefore, self-reliance can be a sustainable personal agenda for the enhancement of the human in us, self-reliance as opposed to technocratic-driven plans (in any field, medical, economical, or technological), power hubris, or the race towards IA and science-fictional "singularity".

My hypothesis is that, in a sense, we currently try to enhance everything, including ourselves, just because we don't know what else to do. This situation comes from the fact that enhancement as the tacit global project is not the contemporary translation for *arete*, but is rather the consequence of this question being lost.

We used technology *to avoid* this sort of question, hence the race to improve devices, hence "human enhancement" as a persisting industrial agenda. But wisdom fights back. We could make a fresh start from technology assessment issues and involved personal life choices to revive this sort of question. Philosophy of technology may light the way, which is the way of a sustainable, not an enhanced, future.

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[11] Not independently from Gandhi, but in different fields, authors like Ivan Illich or E.F. Schumacher (*Small is beautiful*) give a substantial basis for an ethics of frugality.

[12] The reference on *self-reliance* is to the philosophy of R.W. Emerson and H.D. Thoreau. See Emerson's *Self-reliance* (1841), on www.transcendentalists.com, and Thoreau's *Paradise (to be) regained* (1843) and *Life without principle* (1863), both on www.walden.org. These analyses of the question of wisdom in modernity inspire my position.

[13] My references concerning the capable person are Paul Ricoeur and Amartya Sen.