

**Introduction and two words of caution about vocabulary and methodology :**

The September-October 2004 issue of magazine *Foreign Policy* featured a special report titled « The world's most dangerous ideas ». The underlying idea was to ask eight prominent intellectuals an early warning on the idea which, in their opinion, would be the most destructive in the following years. In a post 9/11 context, some answers were rather predictable: Fareed Zacharia, for one, rated first America hating; Martha Nussbaum, religious intolerance; Robert Wright war on Evil, Eric Hobsbawn spreading democracy <sup>1</sup>. Other answers were less expected: the astrophysicist Paul Davies expressed concern that some (crude) interpretations of contemporary genetics would reduce humans to survival machines or robots blindly programmed to preserve genes; and that these aspects of mind not predetermined by genes would lie at the mercy of memetics. In a word, he thought that the most dangerous idea of the Millenium to come was undermining Free Will (crudely) understood as the belief that inside each of us there is a conscious agent who both observes the world and makes decisions <sup>2</sup>. The less expected of all was probably the one brought by Francis Fukuyama. Francis Fukuyama thought that trashumanism was the idea that would pose the greatest threat to the welfare of humanity in case it would be embraced. He saw transhumanism as the ultimate liberation movement. But it was a very peculiar liberation movement. It is common knowledge that the liberation movements of the XX th Century aimed at colonialism or imperialism; at discriminations (racism, sexism, specism); at social injustice or patriarchal society at large. The intention - if seldom the actual practice - of the leaders of these movements was to free colonized people from their (mostly European) masters; poor people, black people, women or animals from prejudice and oppression; and so on. But transhumanism was the most radical of all as it was supposed to aim at liberating the human race from its biological constraints. Some words of explanation are needed: The condition of the human body is not always optimal: tiredness, diseases and aging come immediately to the mind; it is also obvious that human intellectual and sensory performances are not always satisfactory: there are many things people do not generally understand - quantum mechanics or fuzzy logic; there are many things they too easily forget - appointments or

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<sup>1</sup> This was, in a way, an anticipated answer to Natan Sharansky's book *The Case for Democracy: the Power of Freedom to Overcome Tyranny and Terror*, New York, Public Affairs, 2004. Natan Sharansky was the most vehement voice in favour of imposing democracy and he notoriously inspired George Bush and Condoleezza Rices's (calamitous) Foreign Policy.

<sup>2</sup> Paul Daviess sees Richard Dawkins as the prophet of genetic determinism and Susan Blackmore as the prophethess of memetic determinism. As an astrophysicist, he does not seem to be aware of the fact that the concept of a self playing the lead role of captain of the soul has been harshly criticized long before the New Millenium. One thinks, of course, of

important data; there are many things they do not even perceive : ultrasonics, ultraviolet or infrared rays; there are many moods, emotions and feelings they do not control: hostility and love directed towards the wrong people, depression and so on; their life-span is rather limited, and so on. All these facts are generally accepted as given with the human nature. That does not mean that we consider it impossible to take some piece of action against them; that means that we consider them inescapable. In other words: we can mitigate their worst effects, but only within rather restricted limits. Thanks to medicine, to hygienics, to philosophy (a kind of medicine of the soul), to technological devices, to religious beliefs and to the practice of virtues we can soften the human condition. But we cannot avoid being, so to speak, embedded in this human condition which is supposed to last forever. That means that all the aforementioned imperfections are not, actually, limitations : rather they make up the frame for a common experience: the experience of being humans. Nietzsche, for example, argues that it is impossible to lead a human life without forgetting,<sup>3</sup> - unlike the happy animal adherence to the present moment ; some go as far as saying that these imperfections are not only a burden, but only a blessing<sup>4</sup>. This is precisely the kind of discourse the Transhumanists reject. They argue that these imperfections actually are limitations, to be removed once for all by the new biotechnologies - and the sooner the better; so that they want to appear as liberators of the human race from its biological constraints. Such liberated entities would be posthumans.

Here, a first word of caution is necessary: some people<sup>5</sup> use the word « posthuman » to denote a postmodern condition which is not adequately related to anymore by the concepts of traditional humanism. It is not always easy to understand what is meant by « traditional humanism »; let us briefly say that it is a view of mankind as constituting an island of freedom and rationality (both theoretical and practical) in a sea of determinism and lack of reason. So in order to refer to the blurring of the frontiers between animals, artifacts and human beings, these authors use the term « posthuman ». Someone who is profoundly deaf but wear a cochlear implant is already a posthuman in this sense of the word. Those who put the word « posthuman » to such use do not generally claim they are themselves transhumanists. To sum up, they use the word « posthuman » and « trasnhuman » simply as *metaphors* about our present condition, not as *predictions* about a more or less remote future<sup>6</sup>. I shall not focus on their arguments and views; rather, I shall be

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the section VI, Book I of David Hume 's *A Treatise of Human Nature*.

<sup>3</sup> *Unzeitgemässe Betrachtungen*, II

<sup>4</sup> H.Jonas, « The burden and blessing of mortality », *The Hastings Center Report*, Vol. 22, 1992..

<sup>5</sup> Among many: J.-M. Besnier, *Demain les poshumains*, Paris, Hachette Littérature, 2009; R. Marchesini, *Post-human. Verso nuovi modelli di esistenza*, Torino, Borati Bolinghieri, 2002.

<sup>6</sup> The metaphor/prediction difference is very nicely expressed by Elaine L. Graham, *Representations of the Post/Human. Monsters, Aliens and Others in Popular Culture*, New Brunswick (NJ), Rutgers University Press, 2002,

interested in the arguments and views of those who want to reach a posthuman condition in the future and hope technology will allow the fulfillment of this dream.

There is another point. Transhumanist writings are often marginal and proliferating: they seldom have been written by bioethicists and even less by philosophers. How shall one find his bearings in such a diversity? I suggest <sup>7</sup> a classification made according to the familiar political categories : conservatives/progressives. Usually, one can be a conservative or a progressive on economical or cultural issues. Economic conservatives (EC) support free-enterprise, hate welfare state and trade-unions; they consider that economic justice is adequately carried out by the free-market. Economic progressives (EP) favour redistribution, taxation and do not believe in a social anatomy of the invisible hand. Cultural conservatives (CC) adhere to traditional values as embodied in national communities and expressed by religious beliefs ; they distrust individual liberties, considered destructive of the social order. Cultural Progressives (CP) are secular and cosmopolitan; they support individual and minority rights (for example, they favor sexual liberty, a disgusting promiscuity according to their CC foes). So we have the following combinations :

EC+CC = New Right;

EC+CP = Libertarians;

EP+CC = Populists;

EP+CP = Social Democrats <sup>8</sup>.

J. Hughes wants to extend these categories to biopolitics. By « biopolitics », he does not mean - *à la* Michel Foucault - the style of Government that is most concerned with acting on populations by regulating mortality. Rather, he means a spectrum reflecting diverse positions towards the social and political consequences of the so called « biotech revolution ». Biopolitic Conservatives (BC) distrust biotechnologies and wish to implement strong restrictions to their use and even to their development. Sometimes, but not always, this attitude is tied to a stance of defiance towards technology in general. Biopolitic progressives (BP), far from expressing this kind of technophobia are much more in favor of technological interventionism. They consider that, far from jeopardizing values, technologies and especially biotechnologies open new fields for new values. The important point is that one can be an conservative or a progressive in any of the three

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p. 15-16.

<sup>7</sup> After J. Hughes, *Citizen Cyborg. Why democratic Societies Must Respond to the Redesigned Human of the Future*, s.l., Westview Press, 2004. J.Hughes is himself an transhumanist, .... and a Buddhist! He borrows these concepts and their interpretation from W. Maddox & S. Lilie: *Beyond Liberal and Conservatives: Reassessing the Political Spectrum*, Washington , D.C., Cato Institute, 1984

<sup>8</sup> Obviously these categories are not in line with common usage; this point will not be developed here.

issues: economical, cultural, biopolitical, so that there are eight possible combinations between the different criteria. Some denote only very remote theoretical possibilities so that only the five following will be considered :

EC+CC+BC = hard bioconservatives

EP+CP+BC = democratic bioconservatives

EC+CP+BP = libertarians transhumanists

EP+CP+BP = democratic transhumanists.

EP+CC+BC = bioLuddites <sup>9</sup>.

## Transhumanists

There is a well known definition of transhumanism by M. More:

"Transhumanism is both a reason-based philosophy and a cultural movement that affirms the possibility and desirability of fundamentally improving the human condition by means of science and technology. Transhumanists seek the continuation and acceleration of the evolution of intelligent life beyond its currently human form and human limitations by means of science and technology, guided by life-promoting principles and values" <sup>10</sup>

But this is typically the kind of definition which needs some flesh. First of all, where is the word « transhumanism » coming from? The term was coined by J. Huxley in 1957 <sup>11</sup>. Just like his fellow countryman H. Spencer the century before, J. Huxley hold that biological evolution leads somewhere. He sees evolution as « a self-operating, self transforming process which in its course generates both greater variety and higher levels of organisation » <sup>12</sup>. This process features three phases or sub-processes: the inorganic or cosmological; the organic or biological; the human or psycho-social. According to J. Huxley, in the human phase the universe is becoming conscious of

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<sup>9</sup> This is the terminology coined by J.Hughes and it is obviously value laden and not fully adequate. One should take it as a crude color chart, omitting many fine shades, rather than a Crystal-clear picture of reality.

<sup>10</sup> "True transhumanism", *The Global spiral*, <http://www.metanexus.net/magazine/tabid/68/id/10685/Default.aspx> (Consulted on August 18<sup>th</sup> 2010)

<sup>11</sup> « Transhumanism » in *New Bottles for New Wines*, London, Chatto & Windus, 1957, pp. 13-17. I do not intend here to give an history of the transhumanist/posthumanist movement. One can consult the notice: "Transhumanism and Posthumanism" by C. Christopher Hook in *Encyclopedia of Bioethics*, 3<sup>rd</sup> edition, S.G. Post (ed.), New York, Thomson-Gale, 2003, pp. 2517-2518 for such a short history.

<sup>12</sup> « Man's Place and Role in Nature » in *New Bottles for New Wines*, p.43.

itself: man has been, so to speak, appointed managing director of the business of evolution. Transhumanism is the expression of this new responsibility and credo: « man remaining man, but transcending himself by realizing new possibilities of and for his human nature »<sup>13</sup>. Of course, this formula is not a model in clarity; nevertheless, the important point is that in the Huxlean version of transhumanism, man remains man. Man-made evolution is but a continuation of natural evolution and the transcendence he alludes to is realized mainly by cultural means. To quote him at long :

« Natural selection, as operative in biological evolution, depending on the differential survival of types with different genetic endowment, has ceased to be of major importance. It still operates, but in a quite subsidiary way, and it is no longer the prime agency of change. The prime method of change is now change in cultural traditions »<sup>14</sup>.

As one can see, J. Huxley seems to admit that an access to new modes of existence will permit « the full humanization of man »<sup>15</sup>. Of course, the human species to come will be as different from ours that ours is from that of the Pekin man. But it is only a matter of succession of generations within the same family.

Contemporary transhumanists are much more radical : they are ready to jettison our evolutionary past and when they use the term « transhumanism », it is supposed to mean « transitional human(s) ». Max More, for one, notoriously wrote a letter to Mother Nature (August 1999)<sup>16</sup>. He blames her for having lost interest in further human evolution 100 000 years ago. He then suggest a set of 7 Amendments designed to move individuals from a human to an ultrahuman condition. Simon Young hammers out formulas such as this one : « we have existed in a condition of biological servitude - slaves of our selfish genes - for too long. It is time to free ourselves from enforced subjugation »<sup>17</sup>. David Pearce characterizes the aim of his own version of transhumanism as « freeing ourselves from the nightmarish legacy of our evolutionary past »<sup>18</sup>. So, the motto and trademark of contemporary transhumanism is: « Evolution is hell! ». Or as Simon Young says in a striking formula : « Man is not born free, but everywhere in biological chains. People of the world,

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<sup>13</sup> « Transhumanism » in *New Bottles for New Wines*, p. 17.

<sup>14</sup> « A Re-definition of progress » in *New Bottles for New Wines*, p. 30.

<sup>15</sup> « Evolution, cultural and biological », in *New Bottles for New Wines*, p. 88.

<sup>16</sup> <http://www.maxmore.com/mother.htm> (consulted on October 26 th 2010)

<sup>17</sup> *Designer evolution. A transhumanist manifesto*, Amherst, New York, Prometheus Books, 2005, p. 17. Our genes are selfish in the very peculiar sense that they subject individuals to a genetic program for self destruction after they have been passed away to their progeniture.

<sup>18</sup> *The Hedonistic Imperative*, Introduction, 03, <http://www.hedweb.com/hedethic/hedonist.htm#naturalisation> (Consulted on May 11 st 2009).

unite. You have nothing to lose but your biological chains »<sup>19</sup>. Once admitted that our evolutionary past has to be transcended, what will the ultrahuman or posthuman condition look like? In order to know, let us consider Max More's amendments<sup>20</sup>: the tyranny of death and aging will not be tolerated anymore; perceptual range will be expanded and will exceed the perceptual abilities of any other creatures; neural organization and capacity will be improved, intelligence and memory will be enhanced; neocortex will be supplemented by a « metabrain »; mastery over biological and neurological processes will be achieved and individual and species defaults left over by natural selection will be fixed; primitive emotions will be reshaped so that rational self-correction rather than irrational taboos will regulate human conduct; people shall integrate their advancing technologies into their bodies: posthumans will have silicon based organisms as well as carbon based organisms. At this points, two comments are in order. M. More dreams of posthuman perceptual abilities exceeding those of any other creature. Taken literally, that means not only that present human abilities will be enhanced: posthumans will have a better sight than the proverbial lynx. That means also that new abilities will be added, then enhanced: posthumans will use a wider and more efficient variety of ultrasonic ranging than bats. But that implies, of course, that echolocation devices will have to be inserted, either permanently or temporarily in posthuman organisms to begin with. Some transhumanists hold a still bolder argument which goes, so to speak, the other way round: instead of a bodily incorporation of technologies they dream of an technological externalization of the mind . They think that some day it may be possible to transfer a human mind from its brain into some new substrate: a new body or, more generally, a supercomputer. This transfer is called "uploading" (or "downloading, or "brain reconstruction"). Nick Bostrom gives a lot of details<sup>21</sup>. He broadly describes some procedures for uploading: scanning the synaptic structure of a brain, then implementing the same computations in an electronic medium versus replacing gradually every neuron by an implant or by a simulation outside the body. He then surveys some philosophical issues raised by these would be procedures. Without surprise, they are about personal identity. He points that uploads would not necessarily lead a disembodied life as they (plural of "she"? "he"? "it"?) could have a virtual simulated body giving the same sensations and the same possibilities as a non simulated body. Then he lists the advantages of being an upload: freedom from biological senescence; possibility of storing back-up copies so that the life span of an upload would potentially be infinite; freedom from many physical

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<sup>19</sup> *Designer evolution. A transhumanist manifesto*, p. 32. *Of course*, the first part of the formula is a parody of J.-J. Rousseau's *Second Discourse*; the second part is a parody of the last sentences of the *Communist Party Manifesto*.

<sup>20</sup> M. More is much more typical in this respect than, for example, D. Pearce. As D. Pearce sees it, the post evolutionary condition will be one in which aversive experiences and states of mind are completely eradicated from the surface of the earth. It is a radical negative utilitarianism program.

<sup>21</sup> <http://www.transhumanism.org/resources/FAQv21.pdf>, 2.6 What is uploading? (consulted on October 28 th 2010).

needs (thirst, hunger, rest); ability to think much faster than an usual tied to her wetware person (and thus, capacity to enjoy much more subjective time; ability to travel at the speed of light as an information pattern; radical cognitive enhancement by upgrading the software and hardware of the host supercomputer.

Two questions arise: by what means will such promises from the future be kept? According to what sociopolitical principles, if any, are we to become transhumans, then posthumans? As for the first question, let us only mention the answer given by S. Young: Superbiology<sup>22</sup>. According to him, it is an umbrella term denoting the emerging biotechnological methods of curing diseases, enhancing abilities and extending life. It includes neuropharmacology, gene therapy and gene enhancement, artificial implants - and especially computer implants and nanomedicine. Nanomedicine consists of the medical applications of nanotechnologies. It ranges from the medical use of nanomaterials (drug delivery, performing sutures in the field of surgery, etc.) to the medical applications of molecular nanotechnologies (cell repair machines, nanodevices designed to aim at specific treatment sites, etc.). S. Young is especially sanguine about Superbiology as he thinks we shall have reaped most of their blessing during the XXI st century. But even more pessimistic transhumanists cannot do less than welcoming this Baconian-Cartesian program of relieving Man's estate by technological means - and true to their credo, they actually want to enhance Man's estate by technological means.

As for the second question, there is considerable disagreement among Transhumanists themselves. M. More, for one, in issue 7 (Spring 1991) of *Extropy* signed a paper titled "Order without Orderers"<sup>23</sup>. He there contrasts, in a typically Hayekian fashion, spontaneous and constructed orders, concluding that spontaneous orders are vital to the Extropian principles of boundless expansion. Without surprise, he ranks Free Market as a most prominent example of spontaneous order. That means he puts himself among Libertarian Transhumanists (EC+CP+BP). One can define libertarianism as a political doctrine which ranks the sovereignty of the individual above the requirements of any social order; according to R. Nozick's memorable formula : "Individuals have rights and there are things no person or group may do to them (without violating their rights)". In a North-American context, the archlibertarian is A. Rand who is best known for having developed an apology of unrestricted capitalism ; she does not give consequentialist

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<sup>22</sup> *Designer evolution. A transhumanist manifesto*, p. 394. The term seems to have been coined by . G. Stock, *Redesigning Humans*, Boston New York, Houghton Mifflin, 2003.

<sup>23</sup> [http://www.maxmore.com/Order\\_Without\\_Orderers.htm](http://www.maxmore.com/Order_Without_Orderers.htm); there is some confusion between *Extropy* the magazine whose first issue dates back from 1988 and the Extropy Institute founded in 1992. "Extropy" is intended, of course, to denote the contrary of physical entropy, broadly understood as expressing the disorder or randomness of the constituents of a thermodynamic system. To get more details, one can consult <http://www.extropy.org/history.htm> and <http://www.nickbostrom.com/papers/history.pdf> (originally published in a 2005 issue of the *Journal of Evolution and Technology*).

justifications of Free Market Economy (efficiency, growth of population and welfare and so on). Rather she wants to bring deontological justifications: capitalism is based on the recognition of basic individual rights so that force is banned in principle from social relationships; it is a society of voluntary and freely chosen where success depends on the objective values of individual work and rational recognition of this value. ; it is a system which emphasizes man's most valuable attribute: the creative mind.

Democratic transhumanists (EP+CP+BP) - like N. Bostrom<sup>24</sup> and J. Hughes - do not follow this radical stance: while admitting that humanity will be radically changed by technology in the future, they also call for the creation of a new social order where responsible decisions can be implemented (that means that they do not believe that Free Market Economy is an efficient principle of justice for implementing transhumanist ideals).

### **Bioconservatives**

"Bioconservatives" is an umbrella term covering several types of opponents to the transhumanist program. In fact, one can even rank among "bioconservatives" people who did not actually know this program but who have, so to say, anticipated it. Let us consider, for example, what P. Ramsey wrote in *Fabricated Man. The Ethics of Genetic Control*<sup>25</sup>. He focused on proposals made by supporters of neo-eugenics (such as H.J. Muller), on science-fiction scenarios describing the future –and hoped for – reconstruction of man (such as the one written down by G. Feinberg) and on the writings of some theologians (such as the Episcopalian J. Fletcher and the Roman Catholic K. Rahner) whom he called "techno-theologians". According to P. Ramsey, they all dreamed of a complete, or at least accrued, genetic control of man and they all were blind to the fact that, in their hope of reconstructing humankind, what really was at stake was the humanity of man. At the very least, they were blind to the fact that the "debiologized procreation" – the term "procreation" being significantly replaced by the manufacturing term "reproduction" – they enthusiastically supported implied a drastic change in the nature of meaning of human parenthood. More generally, he assessed the utopian dreams of his opponents a well- meaning but all the more dangerous attempt to raise human beings above their own condition. But a general refabrication of individuals, coupled with a control of the future of man through genetic manipulation and an alteration of the nature and meaning of human parenthood are likely to bring out such radical changes in humankind that they "can only be described as the death of the species and its

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<sup>24</sup> N. Bostrom was a founder in 1998 of the World Transhumanist Association : <http://transhumanism.org/index.php/WTA/hvcs/>.

This organization has recently changed its name and is currently known as humanity+ : <http://humanityplus.org/>

replacement by a species of life deemed more desirable. That I take to be similar to the inner motive and action of any suicide" <sup>26</sup>. The mistake common to all his opponents is to believe that there can be ethics without ultimates; or better, that human will and thought are such ultimates, without paying attention to the fact that human beings are embodied persons: "an individual's body, including his sexual nature, belongs to him, to his *humanum*, his personhood and self-identity ..... . To suppose so is bound to prove antihuman – sooner than later" <sup>27</sup>. P. Ramsey concluded that fabricating better individual or trying to manufacture a better humankind is a perfectly misguided use of medicine:

"Actions whose objective is treatment and actions whose objective is the control of the future of our species are different sorts of actions, even when descriptively they may look alike" <sup>28</sup> (Ramsey, 1970, p. 121).

In other words: it is a perversion of medicine that concern for the species replaces cure for the primary patient <sup>29</sup>. We have here the typical hard bioconservatives master argument: it features two aspects. First, some "limitations" are constitutive of our common humanity and it is an hubristic transgression to try to go beyond them (a kind of "Do not play God" argument). Second, there are legitimate and illegitimate aims of medicine: healing people is a legitimate aim; enhancing their performances is an illegitimate aim. Let us begin with the proper aims of medicine. One obvious difficulty with this approach is that it is often difficult to draw a sharp line between therapeutic and enhancing procedures. For example, vaccination is a very common and undisputed procedure in preventive medicine; but vaccination as such does not cure anything. It rather produces immunity to infectious diseases by the administration of antigenic material. So that one can say that vaccination enhances resistance to infectious diseases. A much more subtle argument has been advanced by M. Sandel <sup>30</sup>. Suppose one says: if we have an obligation to heal a sick person, then we have, for the same reason - i.e conferring her a benefit - an obligation to enhance an healthy one. This assertion makes sense only if one accepts the utilitarian-consequentialist thesis that health is not a distinctive human good, but rather a mean of maximizing happiness or well-being. But, to quote M. Sandel at long :

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<sup>25</sup> *Fabricated Man. The Ethics of Genetic Control*, New Haven & London, Yale University Press, 1970.

<sup>26</sup> *Fabricated Man. The Ethics of Genetic Control*, p. 152.

<sup>27</sup> *Fabricated Man. The Ethics of Genetic Control*, p. 87.

<sup>28</sup> *Fabricated Man. The Ethics of Genetic Control*, p. 121.

<sup>29</sup> A very closely related thesis about the proper ends of medicine is to be found in H. Jonas' study : "Ärztliche Kunst und menschliche Verantwortung" in *Technik, Medizin und Ethik - Zur Praxis des Prinzips Verantwortung*, Frankfurt am Main, Suhrkamp Verlag, 1987

<sup>30</sup> M. Sandel, *The Case against Perfection. Ethics in the Age of Genetic Engineering*, Cambridge (MA) & Londres, The Belknap Press of Harvard University Press, 2007. M. Sandel's argument is limited to parental obligation to children. I expand it to cover obligation to heal or enhance in general.

"... it is a mistake to think of health in wholly instrumental terms, as a way of maximizing something else. Good health, like good character, is a constitutive element of human flourishing. Although more health is better than less, at least within a certain range, it is not the kind of good than that can be maximized" <sup>31</sup>.

One can conclude this section by noting that the bioconservative arguments shows that too much is expected from "Superbiology" (genetic engineering and so on). But some transhumanist dreams (uploading minds *à la* H. Moravec or *à la* R. Kurzweil) have not much to do with medicine as such, rather with advanced robotics. So, maybe, it could be interesting to look into the limitations-as-constitutive argument. The most articulated view on the issue has probably been developed by F. Fukuyama in *Our Posthuman Future* <sup>32</sup>. As he sees it, the issue comes under political philosophy; it has to do with the existence of rights as far as rights are endowed with greater moral significance than mere interests. Interests are flexible and can be traded off against one another: this is not the case for rights. So rights are part of the moral fabric of democratic societies; but the problem of their origin immediately arises. As to this problem, F. Fukuyama adheres to a modern conception. Rights do not emanate from God nor from Nature: they emanate from Man. But they are not freely created as a pure arbitrary construction. They are based on human nature. That does not mean that some people are, by nature, intended to rule and others to obey; quite the contrary. True to classical contractarianism, F. Fukuyama holds that people are naturally equal (this equality being based on human nature defined as follows: "the sum of the behavior and characteristics that are typical of the human species, arising from genetic rather than environmental factors" <sup>33</sup>). He admits, of course, that "typical" must not be understood in a too rigid way. But the important point is the stress put upon (invariable and universal) genetic factors rather than upon (variable and particular) environmental traits. It is because people have a common genetic endowment - and this implies, of course, a common set of genetic limitations - that they have a common nature and a common set of rights. Modifying this genetic endowment amounts to debasing the language of political rights. Between GenRich and Natural <sup>34</sup>families, there would exist a kind of inequality which would have nothing to do with the already all too obvious inequality between Rich and Poor. One can sum up F. Fukuyama thesis by saying that he tries to build up a normative theory of human nature. This enterprise has difficulties of its own which I

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<sup>31</sup> *The Case against Perfection. Ethics in the Age of Genetic Engineering*, p. 48.

<sup>32</sup> *Our Posthuman Future. Consequences of the Biotechnology Revolution*, Londres, Profile Books, 2003[2002].

<sup>33</sup> *Our Posthuman Future. Consequences of the Biotechnology Revolution*, p. 130

<sup>34</sup> This distinction has been coined by the biologist and Princeton Professor Lee Silver in *Remaking Eden: Cloning and*

shall not address here. But F. Fukuyama shows a serious weakness anyway, in the context of human enhancement. Let us suppose there exists an opportunity to increase life expectancy of 50 years by mean of bioengineering. If everybody can have access to this enhancement, certainly the human characteristics arising from genetic factors will have been drastically modified. But will our common nature have been jeopardized and will the normative strength of rights have been destroyed? Probably not. Certainly, many difficulties will arise: is there a risk of establishing a GATTACA-like society? Is there a risk of a re-emergence of old fashioned eugenics? But new possibilities and new limitations being, more or less, the same for everyone, equal rights will be preserved in principle, although their content may vary.

As one can see, hard bioconservatives can be, in fact, more or less "hard": they can adopt a religious or a secular stance, they can call for a ban, for a moratorium or for strict regulations. But while instantiating the formula EC+CC+BC, they all think there is something normative in human nature, either taken by itself, or taken as the image of something else. J.Habermas<sup>35</sup> is interesting in that he instantiates the formula EP+CP+BC. The interesting point is not that he is a progressive where the others are conservative; rather, it may be put as follows: he is a conservative in biopolitical issues while rejecting any substantial hypothesis about a normative human nature. In fact, as he sees it, modern societies have reached a point where no general agreement can be reached about the good life; the best which can be done is reaching a procedural agreement about the rules and principles of right conduct. In other words, in modern societies, fully rational and autonomous social actors cannot agree about values, although then can agree about norms. In a nutshell, these norms and principles are those which could be admitted in an ideal dialogical situation where everyone can express, from his/her own standpoint his/her claims and articulate the reasons why these claims should be admitted. This is a rather intricate exercise in balancing deontological and consequentialist considerations, but this is not the point. The point is that, according to J. Habermas, some genetic engineering so coolly considered by transhumanists would prevent someone to have a standpoint of his/her own. Lets us imagine a child "designed" by his/her parents to develop a particular ability (excellence at chess playing, for example). He/she will not be able to be autonomous in a full sense (somenone else will be from the beginning in control of his/her life); which is more, he/she will be made according to some preexisting specification, not begotten with a chance to later become this or that. So J. Habermas concludes with the good old

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*beyond in a Brave New World*, New York, Avon Books, 1997.

<sup>35</sup> *Die Zukunft der menschlichen Natur. Auf dem Weg zu einer liberalen Eugenik?*, Frankfurt am Main, Suhrkamp Verlag, 2001. *The Future of Human Nature*, Cambridge, Polity Press, 2003.

conservative argument according to which genetic engineering should be limited to clear cut therapeutic situations <sup>36</sup> .

Important and interesting critiques of the transhumanist program have been articulated by the so-called BioLuddites (EP+EC+BC) <sup>37</sup> . Here, some words of warning are in n order. There exist actual BioLuddites and Luddites, for example Theodore Kaczynski alias Unabomber. They sometimes bomb Bio Tech Research Plants or destroy GM crops. But as Transhumanists see it, BioLuddites are those people who adopt a critical stance towards technology and the Ideology of Progress. So that they would rank as BioLuddites environmentalists (such as J. Rifkin or B. McKibben) as well as politists or philosophers who have not much to do with the Green Movement (such as Landon Winner) <sup>38</sup> . B. McKibben, for one, has argued that modern technologies proceed by trading context and meaning (social relations, sense of belonging) for individual freedom <sup>39</sup> . He assesses the transhumanist program as the ultimate step from Earth 1 (the world as we've known it) to the demoralizing wastelands of Earth 2 (the world beyond meaning) <sup>40</sup> . So he tries to determinate an "enough point", and draw acceptable limits; one is not surprised to learn that this "enough point" will coincide with the therapy/enhancement distinction. At this level of generality, of course, such a project is bound to fail and the "enough point" will be unstable. Nevertheless, there are real insights in more specific analysis. For exemple, B. McKibben shows that once parents are allowed to enhance their kids, there is a serious risk of arms-race: if everyone has been enhanced to an 130 IQ, there will be a strong pressure to enhance the next generation to a 160 IQ, then the next to a 080 IQ and so on. What will happen with obsolete 130 IQers and their cultural world? Here, we can be nearer to Earth 2 than we think <sup>41</sup> .

### **Some short concluding remarks**

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<sup>36</sup> This conclusion rises difficulties: either diseases are natural evils, but that goes against the Habermasian thesis that modern people cannot agree about natural values and disvalues ; or diseases are considered wrong by the ideal community of rational social actors; but no one can say in advance which conditions will be clearly pathological. Anyway, there is something flawed from the beginning in J. Habermas enterprise: he sees in contemporary genetic engineering practices the continuation of old-style eugenics. This is far from obvious. See *contra*, for example the analysis of N. Rose in *The Politics of Life itself. Biomedicine, Power and Subjectivity in the Twenty-First Century*, Princeton Oxford, Princeton University Press, 2007, especially pp.54-64.

<sup>37</sup> The Luddites were a social movement of the early Industrial Revolution in Britain. Luddites (after a more or less fictive leader "Captain Ludd) practised machine-breaking (that is industrial sabotage).

<sup>38</sup> And this author as well. There is a nicety with L. Winner as he proponed a methodology for critical assessment of technologies he himself coined "Epistemological Luddism" (L. Winner, *Autonomous Technology*, Cambridge (MA) & London, The MIT Press, 1977, pp. 325-335). This only shows that the term "BioLuddism is, at least, value-laden.

<sup>39</sup> B. McKibben, *Enough. Genetic engineering and the end of human nature*, London, Bloombury, 2004 [2003], p. 47.

<sup>40</sup> B. McKibben, *Enough. Genetic engineering and the end of human nature*, p. 230.

<sup>41</sup> Some transhumanists -N. Bostrom, for one - answer by distinguishing non-positional (valuable by themselves) goods and positional (valuable only by the advantages they confer) goods. But this clear cut distinction can be rebutted: in a competitive context, most goods have a positional as well as a non-positional side. It is good to be healthy, but if you are healthy you will be advantaged in the working place.

One can easily spot two trends in the transhumanist literature. On one hand, there is the "Superbiology" connexion, with its promises of erasing aging, death, disease and decay. On the other hand, there is the "Super Robotics" connexion which prophesies the extinction of the human species and the advent of a successor species, merging human and machines (even if machines to come are called "spiritual", as in R. Kurzweill's best-seller book). This tension probably dates back from the very creation of the term "transhuman" by J. Huxley: will transhumans achieve humanity or go beyond humanity? I shall leave aside the "Super robotics" connexion which probably expresses the dark side of transhumanism. And I shall leave it all the more readily that the "Luddite" L. Winner has given what is probably the best critical assessment of it. He argues that one cannot properly understand the idea of the obsolescence of humans without understanding the meaning of the modern philosophies of technological progress. As he sees it the modern philosophers of technological progress until now have held that the "proper beneficiary of progress was humanity as a whole"<sup>42</sup>. Of course, some disagreement exists about the actual content of the concepts of "humanity" and "progress"; but everybody agrees: in the end, humanity will reap the benefits of technological progress. But for transhumanists of the "Super Robotics" connexion, the expected benefits of technological progress are so huge that only a more than human beneficiary class can reap them. So that their world-view boils down to an exceptionally uncritical form of technophilia.

It is less easy to assess the "Superbiology" connexion. After all, aging, death, decay and disease are the signs sent to Siddhārtha Gautama, which, properly understood, led him to the search for salvation. Who would scorn a promise of becoming free from death, aging, decay or disease? A critical stance towards technology, even justified, will not be sufficient here. This is because the problem at stake is tied to human enhancement. Philosophers and ethicists cannot avoid this issue; and actually, some very fine studies have already been published on this subject matter<sup>43</sup>. In many respects, transhumanist promises seem childish. But they deserve a critical examination and one can bet that it will be a major issue in bioethics in the years to come.

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<sup>42</sup> L. Winner "Are Humans Obsolete?", *The Hedgehog Review*, Fall 02, p. 26.

<sup>43</sup> Let us mention, about the very concept of enhancement: "R. Chadwick, Therapy, Enhancement and Improvement" in B. Gordijn & R. Chadwick (eds), *Medical Enhancement and Posthumanity*, Springer, 2008, pp. 25-38 (but the whole book deserves to be mentioned as a model of lucid thought). Let us mention also, by A. Buchanan, D.W. Brock, N. Daniels & D. Wikler: *From Chance to choice. Genetics & Justice*, Cambridge, CUP, 2001. And certainly A. Buchanan's *Beyond Humanity. The Ethics of biomedical Enhancement* (to be published in early 2011) will be a major

