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WHAT IS THE ROLE OF 'HUMAN NATURE' AND 'HUMAN DIGNITY' IN OUR BIOTECHNOLOGICAL AGE?

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Introduction

Rapid developments in genetics and reproductive technologies, including the prospect of human genetic engineering, cloning and various forms of enhancing human capacities, oblige us to face very old questions that have been largely abandoned in modern philosophy. What does it mean to be *human*? What constitutes a *meaningful* life? Do human beings have *intrinsic worthiness*? What *values* should guide society in making its choices?

In this paper, I first argue that these fundamental questions are today more valid than ever, and that they need to be specifically addressed in the context of human biotechnological interventions and not lumped together with other technological developments. Second, I briefly explore the question of whether the notions of human nature and human dignity can contribute to the efforts that are aimed at responding to the new dilemmas posed by technological interventions on ourselves and on our descendants.

I. The Dilemmas Posed by Human Biotechnologies Need to Be Specifically Addressed

At present, there is a renewed interest in the classic philosophical questions about the *ends* and the features that properly characterise *human* living conditions. While such questions are never irrelevant, they have rarely been more important than they are today. We are now beginning to deal with technologies that are *unique* in that the object upon which they operate is not something external to us, but rather apply to *ourselves.* In addition, the changes that some of them may introduce on humans are *irreversible,* that is, they cannot be removed and are passed on to future generations.

It is true that all technological innovations have always had a certain impact on the way we live, in the sense that they have influenced our behaviour and have created new needs (just consider the substantial impact that the Internet and mobile phones have on our daily lives). It is also true that every new technological development can be used for good and bad purposes; nuclear energy can be used both to generate electricity and to produce the atomic bomb. This might suggest that there is nothing special with human genetic engineering and with the (not too far) possibility of predetermining the features of future children.
However, the fact remains that there is a significant difference between both types of technologies. In the case of those operating upon *external* things, we have always had the choice to continue using them or not; we can freely accept them if they are beneficial, or flat out renounce them when we find out that they are more harmful than helpful. For instance, in order to preserve the environment we can decide (as we are gradually doing) to abandon oil and develop renewable forms of energy (i.e. solar energy). Put bluntly, we are free to make such choices.

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On the contrary, as mentioned above, human biotechnologies operate not upon the *things* that we use, but upon the *users* themselves (i.e. upon ourselves) as they directly aim to predetermine human features. But once those changes have been introduced into the genetically engineered individuals, there is no way back; they are irreversible, not only because they cannot be removed from the individuals themselves, but also because they will be presumably passed on to their children. This is why it can be said that they reduce the capacity for choice itself. This radically different situation places the dilemmas emerging from human biotechnologies in a special, separate category.

To illustrate this point, consider the following examples. Imagine a cloned teenager who is psychologically suffering as a direct result of having been produced as a genetic copy of another human being (for instance, his grandfather, a movie star, a famous tennis player, etc.). This individual will be deprived of his capacity of choice, since he cannot cease being the genetic copy that he is. The same could be said of a genetically engineered person who is disgusted by the enhanced abilities with which he was deliberately endowed before birth (for instance, enhanced memory), and remains nevertheless condemned to continue living with them. Even if he would like to be able to forget certain memories, he will continue remembering everything. We see here a dramatic paradox, that the enhanced freedom of choice of the potential parents to predetermine the features of their children results in the reduced freedoms of the latter.

That being said, it is true that people have used different technical means to enhance their abilities for centuries (for instance, wearing glasses or using binoculars to see objects at long distances). And it may follow that there is nothing radically new about altering our bodies or our brains for enhancement purposes. However, putting aside the distinction that many of the potential technological alterations operate upon future people, and not upon the manipulators themselves, it should be noted that we are not necessarily confronted with changes that represent a mere difference in degree, but a real difference in kind. There is indeed a tremendous difference between wearing glasses and, let us say, redesigning humans to give them an extra eye in the back of the head.

The main source of trouble for many people is the possible impact of some biotechnological interventions upon not only ourselves, but on those who will succeed us, that is, on humankind as a whole, and on the *identity* of the human species. Many people fear that we are moving towards an increasingly dehumanised society. It is not by chance that almost all science fiction films, which tend to reflect people's fears and concerns, present a very dark picture of the future technological interventions on our minds and bodies.[1]

II. Does 'Human Nature' Play a Role in the New Search for Normative Criteria?

In this context of potentially dehumanising technologies, the hope is that the recourse to notions like 'nature', 'human nature' or 'human dignity' may help

[1] Several films illustrate this point: *Blade Runner* (1982); *Matrix* (1999); *The 6th Day* (2000); *Artificial Intelligence* (2001); *Minority Report* (2002); *I, Robot* (2004); *Surrogates* (2009). But *Gattaca* (1997) is without doubt some of the best examples. It is scientifically accurate and particularly interesting from a legal perspective: it presents a society where genetic information plays the primary role in determining social class, and where prospective parents suffer subtle but strong pressure to genetically engineer their children.

us in the search for adequate responses to the tremendous challenges that we are beginning to face. The expectation is that these basic concepts can offer some *normative* criteria, that is, that they can guide our policy options so as to preserve some key features of our common humanity. This is at least the hope. What is clear is that these new circumstances raise extremely challenging questions which we are probably not prepared to respond. Which technologies can contribute to the flourishing of humankind and genuinely improve human living conditions? Which ones cannot? Which biotechnological developments should be encouraged, and which should be avoided? Is our humanity something that we can shape like clay? Are there some limits, and if so, what are these limits? Are all technological alterations of the human condition desirable? In other words, do they pay off? Who will be the ultimate arbitrator when selecting the 'best' features and abilities in future generations?

These are extremely difficult questions to which there are no clear-cut answers. Technological advances in different areas make indeed great contributions to our well-being in the fields of health, communication, working conditions, etc. The question is whether, at a certain point, technological interventions on our bodies and minds could be counterproductive and degrade our sense of self, in addition to reducing our status of *subjects* to that of *objects* designed by others.

Of course, it would be absurd to consider that all new biotechnological innovations are intrinsically wrong. But it would be naive to see them as inherently good. Since the dropping of the atomic bomb in Hiroshima we know that technological developments can also have catastrophic consequences. The serious environmental problems that we are now confronting as a consequence of over-industrialisation are another example of this. The question remains whether the notion of 'nature' (or 'natural') can assist us in providing a response to the challenges posed by the increasing number of technological interventions upon ourselves.

It should be acknowledged that the concept of nature is very tricky to unravel when determining its meaning. It can be used as a *descriptive* notion to provide a collection of distinctive features that characterise some entities which are distinguishable from others. When the notion of nature (or natural) is used with this meaning, it seems that no moral conclusions can be drawn from it. Trying to deduce values from mere facts would represent the so-called 'naturalistic fallacy', which has been denounced by Hume, G.E. Moore and other philosophers.

But besides describing nature as a static or descriptive notion, it can also be understood to be a *dynamic* one. This is the classic or Aristotelian understanding of nature, which makes reference to the *internal principle of action* of something (especially living beings). From this perspective, when an entity operates *according to its nature* it can be said that the action is 'natural' (or good), because it realises the potentialities of that being. A dog that wags its tail when pleased acts according to its nature, while a dog that climbs a tree to hunt pigeons does not. In the case of humans, who are characterised by reason and free will, 'natural' is synonymous for 'reasonable'. We act according to nature when we use our reason to pursue our intrinsic goods. Thus, the idea is that we are able to recognise by reason some (basic) goods for us and for the society in which we live, and then distinguish right and wrong actions depending on whether they are in conformity with those basic goods, or not. It is not difficult to see that the

notion of 'nature' (or 'natural') does not serve merely descriptive role, but rather a normative one.

An example might help to illustrate this point. If we say, from this perspective, that 'it is *natural* that parents take care of their small children', we are not saying that this is merely a biological fact, nor are we saying that 99% of parents take care of their children, and *therefore,* that this is a good thing to do (this argument would be a naturalistic fallacy). We intend to say that it is *good* that parents take care of their children because parenthood presupposes such care, i.e. that such care is a constitutive element of parenthood.

III. Human Dignity as the Intrinsic Value of Human Beings

Like human nature, the notion of human dignity is also very difficult to define and confronts us with several paradoxes. One paradox is that dignity is easier to grasp when we consider what is *contrary* to it rather than what is in conformity with it. It is when we face the worst things that can be done to a human being (torture, slavery, degrading treatments or punishments, etc.) that we better understand, by contrast, what 'dignity' means. These situations of extreme degradation or humiliation help us to become aware that respect for human dignity is a very real requirement of human interaction and not simply a metaphysical hypothesis. Perhaps this experiential approach is unable to offer any academic definition, but provides us with a vivid experience of what it means to have dignity which is disregarded via dehumanising treatment.

This phenomenon explains why the notion of human dignity is usually characterised in negative terms, for instance, by saying that it embodies the idea that "there are some things that should not be done to anybody anywhere",[2] or that people must "*never* be treated in a way that denies the distinct importance of their own lives".[3] Even the Kantian categorical imperative, according to which no one is to be treated as a mere means to another's end, can be regarded as example of this *via negativa.*

Although the notion of human dignity has a very long history in philosophy, it has re-emerged with great vigour after the Second World War as an international legal and political concept which aims to stress the need for unconditional respect of every human being in the different realms of social life. It was in response to the horrors of this tragic period in history that the Member States of the newly created United Nations reaffirmed their "faith (…) in the dignity and worth of the human person".[4] Subsequently, the Universal Declaration of Human Rights (UDHR) served as the cornerstone of the new international human rights system which was grounded on the "recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family".[5] The Declaration puts forward that "all human beings are born free and equal in dignity and rights"[6] and that, for

[2] M. Midgley, 'Towards an Ethic of Global Responsibility', in: Tim Dunne & Nicholas J. Wheeler (eds.), *Human Rights in Global Politics,* Cambridge: Cambridge University Press 1999, p. 160.
[3] R. Dworkin, *Life's Dominion. An Argument About Abortion, Euthanasia and Individual Freedom,* New York, Vintage 1994, p. 236.
[4] Charter of the United Nations (1945), Preamble, at: http://www.un.org/en/documents/charter/preamble.shtml (21 December 2010).
[5] The Universal Declaration of Human Rights (1948), Preamble, at: http://www.un.org/en/documents/udhr/index.shtml (21December 2010).
[6] *Idem*, Article 1.

this reason "no one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment".[7]

It is true that the notion of human dignity, which is at the heart of major international human rights instruments, is never explicitly defined by them. However, they provide a valuable guidance for the understanding of this concept when they state: first, that dignity is "inherent … in all members of the human family"[8]; second, that all human beings are "free and equal in dignity and rights"[9]; and third, that "these rights derive from the inherent dignity of the human person".[10]

These three ideas, even though they may appear to be extremely vague, are very helpful to better understand the meaning and role of human dignity:

1. The use of the term 'inherent' (or 'intrinsic') aims to emphasise that dignity is *inseparable from the human condition.* Dignity is not an accidental quality of some human beings, or a value derived from some specific physical or mental abilities, nor is it derived from the fact of belonging to some socio-economic, ethnic or religious group, but rather an unconditional worth that everyone posseses by virtue of being human.

2. If dignity is inherent to every human being, it applies equally to all. It would follow that there cannot be different levels of dignity. If, in addition, dignity is the source of all basic rights and freedoms, then the latter should also be the same for every single one of us (universality of human rights).

3. If human dignity is the foundation of human rights, then rights are pre-existing (i.e. moral) claims, and not just the product of a benevolent decision by the state. Therefore, the state is *obliged* to recognise and promote respect for human rights.

IV. The Central Role of Human Dignity in Bioethics

There is a close relationship between the central role played by human dignity in international law on the one hand and medical ethics/bioethics on the other. This is not by chance. Both domains emerged simultaneously from the same tragic event, the Second World War, and for this reason are conceptually much closer than usually assumed.

The emphasis on human dignity that dominates the ethical and political discourse since 1945 can, to a large extent, be explained by the horrors witnessed in the revelations that prisoners of concentration camps, including children, were used by Nazi physicians as subjects of brutal experiments. In this regard, the American bioethicist Robert Baker asserts that the UDHR was in part informed by the discoveries of these abuses, which led in 1947 to the development of the Nuremberg Code by the trial that condemned the Nazi physicians. Baker claims that "the details revealed daily at Nuremberg gave content to the rights recognized by Articles 4 through 20 of the Declaration".[11] Similarly, George J. Annas has pointed out that "World War II

[7] *Idem*, Article 5.
[8] *Idem*, Preamble.
[9] *Idem*, Article 1.
[10] International Covenant on Civil and Political Rights (1966), at: http://www2.ohchr.org/english/law/ccpr.htm (21 December 2010); and International Covenant on Economic, Social and Cultural Rights (1966), at: http://www2.ohchr.org/english/law/cescr.htm (21 December 2010).
[11] R. Baker, 'Bioethics and Human Rights: A Historical Perspective', *Cambridge Quarterly of Healthcare Ethics,* 2001, vol. 10, issue 3, p. 241-252.

was the crucible in which both human rights and bioethics were forged, and they have been related by blood ever since."[12] It was the need to put some limits to the research involving human subjects that led to the renewed importance of the idea of human dignity after the end of the Second World War.

Thereafter, since the end of the 1970s, the recourse to human dignity in relation to medicine went beyond the field of medical research and began to be applied in the debate on a vast array of diverging practices, especially those that operate at the edges of life, like in vitro fertilisation, preimplantation genetic diagnosis, futile therapies on dying patients, assisted suicide and euthanasia. In this varied context, it is not surprising that the term dignity was sometimes used to support different and even opposed views. Simultaneously, the concept also began to be employed to criticise what was regarded as the new forms of commodification of the human body, which includes organ selling and surrogate motherhood.

This broad and multifaceted function of human dignity is visible in the instruments adopted during the last decade by intergovernmental bodies, such as UNESCO and the Council of Europe. Those instruments confer on the notion of human dignity the status of an *overarching principle,* that is, of an ultimate and general standard that is called to provide an ultimate foundation to the norms governing the whole biomedical field, in particular those relating to the requirements of informed consent, the ban on genetic discrimination, the confidentiality of personal health information, the protection of organ donors, among others.[13]

But an important shift took place by the end of the 1990s, when a different and much broader meaning of the notion of dignity was incorporated, in order to stress the need to preserve the identity and integrity of the *human species* against some biotechnological developments, such as germline interventions and reproductive cloning. The notion of human dignity was now seen as the *last barrier against the alteration of some basic features of humankind* (for instance, biparentality in the case of cloning, and the non-predetermination of people's features by third persons with regard to germline interventions).

In this context, what seems to be at stake is not the dignity of the currently existing *individuals*, but the value we attach to the existence and integrity of *humankind as such.* A major part of the current controversies surrounding the use (or for some abuse) of human dignity relates to this extended understanding of the concept. This is not surprising given that this is a much more abstract notion than the traditional idea of dignity and that the limits between what deserves protection from improper manipulation and what does not, are quite blurred.

In the case of cloning and germline interventions, a number of serious arguments have been advanced to show that these procedures really jeopardise our understanding of what it means to be *human.* Regarding reproductive cloning (leaving aside all of the social and psychological implications of the techniques), *sexual reproduction* is at stake, that is, the fact that every individual is conceived by the fusion of two gametes provided by two different persons, a male ('father') and a female ('mother').

[12] G. J. Annas, *American Bioethics,* New York, Oxford University Press, 2005, p. 159-161.
[13] R. Andorno, 'Human Dignity and Human Rights as a Common Ground for a Global Bioethics', *Journal of Medicine and Philosophy* 2009-3, pp. 223-240. Available online at: http://www.unesco.org.uy/shs/red-bioetica/uploads/media/dignidad_Andorno.pdf

Biparentality, which is regarded by biologists as a hallmark of evolution, is a key feature of advanced animals, while asexual reproduction can only be found in unicellular organisms, as well as in some insects and fishes. It is indeed difficult to believe that promoting asexual reproduction in humans would constitute progress for the human species. Instead, it would represent a tremendous regression, which would probably be the most dramatic one that humankind has ever experienced.

Regarding germline interventions, what seems to be at risk is *freedom* from deliberate genetic predetermination by third persons, and, in the long run, the principle of equality between generations. Paradoxically, this freedom closely depends upon the circumstance of the features of each individual that are left to *chance*, rather than to *choice*. According to some philosophers, chance in human reproduction can be regarded as a value in itself, which needs to be protected against a potential misuse of new technologies.[14]

It is important to note that the human rights framework is powerless to face the challenges posed by these procedures because rights only belong to *existing individuals,* not to humanity as such or to future generations. The claim made that individuals have the 'right not to be conceived as a genetic copy of another person', or a 'right to inherit non-manipulated genetic information' serves more as rhetorical statements, than conceptually consistent arguments. How could people who have not yet been conceived be entitled to any rights? Clearly, there is an urgent need to develop new conceptual and legal tools to address these new issues.

Conclusion

Classic philosophical questions that have largely been neglected in modern times are re-emerging nowadays as a consequence of the possible implications of biotechnological interventions on our bodies and minds. The new potential developments raise also completely new questions that include the moral role that chance in human reproduction might play in ensuring the freedom of future generations, and the need to preserve the constitutive features of our own species (such as biparentality). What is clear is that great wisdom is required when addressing these challenges. Today, more than ever, we are impelled to make serious intellectual efforts to distinguish between those technological developments that may contribute to the well-being of mankind, from those that may reveal in the long run to be more harmful than helpful.

[14] See J. Habermas, *Die Zukunft der menschlichen Natur: Auf dem Weg zu einer liberalen Eugenik?,* Frankfurt: Suhrkamp 2001.