

editorial

Human dignity: bioethical considerations

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FRAMEWORK

Human dignity, based on one's humanity itself, is revisited in this reflection, that I would like to be regarded as a dialogue. It will be based on the principle that, ontogenetically, it is not possible to define one moment in the trajectory of life of a new human being at which we may attribute the gain or the loss of the innate dignity of a human being.

It will also be based on the principle that education, science, philosophy, ethics, moral, religion, law, economy, politics and innumerable other factors influence the outlook and scope of the choices of each citizen. Thus in various historical, social and psychological times and different geographical places inhabited by mankind, the questioning of the "moral value" of each human act, and even of the "value" of the "other" has been a recurrent concern - in this case taken as a weighing mechanism, as something distinct and distant from the "I" that arrogates its own or delegated authority for this leverage.

I will conduct this dialogue in the light of a comprehensive "definition" of ethics, to which the well-remembered professor and priest Luís Archer and I have arrived, towards the end of an unforgettable afternoon of reflective contemplation: ethics is "an area of knowledge which investigates what is *good* in the action of the man (each man), in the search for the behaviour that will allow his full accomplishment as a person, under the scope of a solidarity towards the others that will exhibit global fairness".

You will agree that this view of ethics may contemplates, without gaps, a conceptual structure of bioethics and Potter's global bioethics that encompasses, also in the perspective of solidarity with the future, interpersonal relationships and the interaction between man and the advances in science, biotechnology, nanotechnology and "synthetic life". These aspects also connect to public health, biomedicine and medicine of increasing differentiation and complexity, with medical decisions based on moral respect for human rights and the dignity of each patient and thereby generating a framework for a fair distribution of resources with respect for non-human animals and sustainability of the environment.

The purpose of this framework is to provide the valuation of the arguments that I will wield concerning the intrinsic dignity of each human being. I also state that, in medicine, ethics functions both in decision-making and in making the best choices. This is because sometimes the medical doctor has to take decisions and make difficult choices in order to save one life to the detriment of another. Also because there are, even rarely, forms of life developing *in utero* which, although as human as any other human life, manifestly do not possess any potential to future self-regarding and exercising the moral agency. Equally, there are others that, although not normal, may indeed have the potential for the development of diverse degrees of moral consciousness.

Ethical dilemmas in medicine are resolved not only by taking into consideration the ethical principles, but also the professional standards, the expectations of society, the various options in presence, the availability of resources, the values, beliefs, desires,

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interests and expectations of a patient or a healthy user, and the whole context. In the specific field of biomedical ethics, it is necessary to defend the autonomy and freedom of each person, since it should be taken as an intrinsic, non-instrumental value – that is, the respect for the “personal nature” of decisions taken after the knowledge of the result of any investigation must be taken into consideration, due to the respect for individual self-determination and for the confidentiality.

To further clarify the grounds of my line of reasoning, it should be said that I accept the moral primacy of the intrinsic sense of human dignity, and Kant’s viewing of a person as an end in itself, and not a means to an end. Human dignity will be violated if a person is lowered to an object’s level, a mere means, or reduced to an amount that may be replaced – a man has a worth which has no price, no equivalent for which the object of valuation could be exchanged.

HUMAN ONTOGENY

Ontogeny refers to all the events that occur during human life from the unicellular egg or zygote to the adult human being. The process begins with the fertilisation of the ovocyte by one spermatozoon followed by fusion of the male and female pronuclei, thereby restoring the diploid chromosomal complement of the human species, present in all eggs or zygotes.

Throughout development and during the whole life of a human being, the genetic identity of the nuclear DNA of the diploid zygote is repeated in all nucleated cells. The exceptions are mature type-B lymphocytes in which somatic recombination occurs to allow the production of immunoglobulins, gametes in which the chromosomal constitution is reduced to haploid, and in cells where mutation occurs.

Acquisition of the highly diverse morphologies and functions that are observed in the multiplicity of cells and organs of a human being is the result of differential gene expression, both in temporal and spatial terms.

During the period between fertilisation and eight weeks of development, a growing human being is designated as an embryo. After eight weeks and until birth the designation is foetus. Besides the genetic information, multiple environmental factors create the basis of normal or abnormal development of a human being.

Within 24 hours after fertilisation, the zygote duplicates the genetic information by means of the DNA replication and divides itself into two identical cells designated as blastomeres. Mitotic division will successively continue, in each new cell.

At the beginning of the third week gastrulation starts, characterized by differentiation of the mesoderm and the subsequent formation of the trilaminar embryonic disc consisting of ectoderm, mesoderm and endoderm. From these three layers, all the tissues and structures of the human body will develop.

Human morphogenesis initiates during the third week, that is, the development of the shapes that the human body will attain.

At the end of the eighth week, the embryo has an easily distinguished human shape and the main organic systems are developing. Concurrently, the limbs start to move, apparently with determined objectives.

At the end of 38 weeks the gestational period ends.

THE SEARCH FOR THE MOMENT AT WHICH THE DIGNITY OF HUMAN LIFE EMERGES

Some will argue that the early human embryo is not a person. However, it is a human life and no other type of life. Also it is unique because it carries a combination of genetic information that is different from that which is present in each of the parents and also from any other human being – living or that has ever existed on the face of the earth. It is an end in itself, it has all the potential to develop into an adult human being.

Who is the owner of this new human life? In its uniqueness and individuality, it is the property of nobody. The parents and the society have to guarantee its protection and the means for its survival and development. Due to its humanity, deserves respect.

Furthermore, the eight cell embryo adds to its already cited uniqueness and individuality the capacity of the production of chorionic gonadotrophin which, through the maternal circulation, will influence the endometrium maintenance, preparing it for implantation a few days later, at around six or seven days after fertilisation. Important fact: the eight-cell embryo “communicates” with the mother using this type of language to “tell” her to make the endometrium ready for its arrival. Does this capacity for communication increase the “value” of the embryo?

And what may be said about the differentiation of the cardiovascular system and the development of a tubular heart, whose beating may be recorded after 21 or 22 days of embryonic development? At least symbolically, the initiation of foetal heartbeat could bring additional “weight” to the value of the embryo.

And what additional value may be attributed to the embryo at eight weeks, when it is capable of orientating its limbs with a well determined purpose, such as what happens following a prick?

And to a foetus at 10 weeks, now capable of reacting to pain and to which it is now possible to register an electroencephalogram?

Later, by 24-weeks, the foetus pulmonary cells are capable of producing surfactant and, by 26 weeks, the lungs are sufficiently mature to allow breathing and therefore the survival of a premature birth. However, the pulmonary develop will continue until around eight years of age – 95% of pulmonary alveoli will only develop after birth.

When a child is born, the first cry, intense and strong, is a sign of vitality! Despite this, the child is fragile and entirely dependent on third-parties, a state that will persist for several years.

The development of a new born proceeds in its biological dimension and in multiple other dimensions. Could it be that the building up of a will and a human self-conscience finally indicate the superior expression of the intrinsic dignity of this specific human being? Yet the trajectory of life of a born human being is that of a perpetual construction until the end of its days! No moral meaning can be deduced from evolutive biological steps.

If, additionally, the option is to associate the existence of dignity of a human being to a concept of normality, the situation is not less complex. In truth, human variation is enormous as it is the subjectivity inherent in the establishment of reasonable limits of normality patterns! There is no model for human “perfection”, neither is there a standard for the genome, nor for physical, intellectual or behavioural patterns. Normality is frequently associated with the interaction that occurs between the effects of gene product and environment. There are environmental conditions in which the advantage over another human being, even the survival, is the presence of an abnormal genotype. Hence genetic diversity is the best resource for the survival of species.

CONCLUDING REFLECTIONS

There is no moment nor is there any condition that may concede or withdraw the intrinsic dignity of a human life.

In the *continuum* that the development of a human life is and in the light of my previous reasoning, it does not seem possible to define one moment at which any human being gains dignity along the ontogeny – that is, a moment after which a life may be considered worthy of respect and imbued with dignity, while before this specific moment it was not.

Following this reasoning, it is not possible either to define any moment at which there could be any loss of dignity. And if, for this putative loss of dignity, one opts to invoke patterns of normality that anticipate or demonstrate qualities for a life “worth living”, the enormous subjectivity associated with this invocation will require a rigorous scrutiny by society.

Would it not, therefore, be more consistent with the ethical principles and simply more human to agree that the person is an end in itself, not a means to an end, with an absolute value and therefore carrying intrinsic dignity?