

JOURNAL  
of  
APPLIED ETHICS  
and  
BIOLAW

ISSN 2501-529X  
ISSN-L 2501-529X



# JOURNAL of APPLIED ETHICS and BIOLAW

published by

the ASSOCIATION FOR EDUCATION AND RESEARCH IN ETHICS AND LAW - EDUCED

[www.educed.ro](http://www.educed.ro)

## Advisory Board (in alphabetical order)

Seval Akgün - Turkey	Alberto Garcia - Italy
Xavier Arias - Spain	Eugenijus Gefenas - Lithuania
Vasile Astărăstoae - Romania	Rodica Gramma - Republic of Moldova
Mark Aulisio - USA	Ștefan Iloaie - Romania
Tiziana Brevini - Italy	Sana Loue- USA
Mircea Gelu Buta - Romania	Zvonko Magic - Serbia
Ioan Chirilă - Romania	Claire Mclvor - UK
Aurora Ciucă - Romania	Laura Palazzani - Italy
Jorge Diener - Israel	Andrei Pădure - Republic of Moldova
Halis Dokgöz - Turkey	Antonio Sandu - Romania
Elmar Dopelffeld - Germany	Călin Scripcaru - Romania
Dan Dumitrașcu - Romania	Stuart Youngner - USA
Bülent Eren - Turkey	Nuno Duarte Vieira- Portugal

## Editorial Board

### *Editor in chief*

Beatrice G. Ioan

### *Associate Editor*

Cătălin J. Iov

### *Editors*

Mirela Avădanei

Mariana Enache

Magdalena Iorga

Gabriel Roman

Irinel Rotariu

Iulian Warter

Teodor Tilică

Subscription for hard copy:

100 Euros/year (4 issues) - including the shipping fees

Payment details: RO68INGB0000999905167265, ING Bank, Iași, Romania

Please send us a copy of the receipt by e-mail: [contact@biojustice.eu](mailto:contact@biojustice.eu)

[www.biojustice.eu](http://www.biojustice.eu)



# JOURNAL OF APPLIED ETHICS AND BIOLAW

## Table of content

Editorial. Ethics And Communication in Pregnancy Among Mentally Disabled Women.....	1
<i>Magdalena Iorga</i>	
The Doctor-Patient Relationship: Providing Care to Muslim Patients in Europe	5
<i>Sana Loue</i>	
Moral Aspects and Ethical Principles of Terminal Patient Care in Palliative Medicine .....	13
<i>Valenin Petre-Ciudin, Cornel Petre-Ciudin</i>	
The Role of Christian Bioethics in The Public Debate .....	23
<i>Mircea Gelu Buta</i>	
What is The Relevance of Jewish Tradition and Ethics for Modern Management?.....	37
<i>Liviu Warter, Iulian Warter</i>	
Jewish Business Ethics. Tradition and Modernity .....	49
<i>Iulian Warter, Liviu Warter</i>	
Organ Transplantation from Artificially Grown Beings .....	59
<i>Cătălin J. Iov</i>	



# Organ Transplantation from Artificially Grown Beings

Cătălin J. Iov\*

\* lecturer, PhD, Eng, MA in Bioethics, APOLLONIA University of Iasi, TRIAS Microelectronics, Romania, e-mail: iovcatalin@yahoo.com

**Abstract:** *The need for organ transplantation is increasing over and over with the life span. Better quality of life requests additional ways to keep this need as low as possible. Organ culture is one approach among some others available. Apparently no consent would be requested to grow such bodies. The current paper touches a the problem of the bodies grown in cultures for the organs, with or without head, with or without brain. Some would argue these can be considered human beings while some walk against. However, apparently, this approach works against the organs black market. The status as human being of the artificial bodies and organs is discussed.*

**Keywords:** *humankind, body and soul, transplantation, ethical issues, artificial organs.*

## Introduction

The organ transplantation is a medical procedure that became very common since the medical technology dramatically developed. Replacing organs has become a technique of interest for at least two decades already. Currently, the replacement can be performed to limbs, ear, eye, heart, lung, liver, pancreas, ovaries, bladder, trachea, thymus and some others. Two approaches are used. One

is the bionics with all the technological insertion in medicine while the other, still based on technology, the biotechnology, produces organic results, such as ears, skin etc. The latter, known as organ culture, with the possibility to accurately model real organs in any condition, uses the in vitro technique, and is a development from the tissue or organ culture way. Compared to bionics, the aim is to preserve the original tissue model architecture. Special handling is required.

The topic of legal and ethical debates is the source of organs for transplantation. The concept of donor and receptor implies that a body is providing organs or tissue to either the same or a different body. The same body as source technique, called autograft [1], implies a living subject. The allografts [2], the transplants between subjects of the same species, is using as sources either living beings or cadavers. Some steps were made

further and the transplantation between species is taken into account. This kind of transplantation, namely xenotransplantation, successfully used, for instance, the heart valve from swine to humans. This type could be dangerous from the risk of compatibility issues, rejection and potential associated diseases [3], [4], that could be carried out between species.

One corner case in transplantation is to create bodies for transplantation. The bodies would be genetically based on one real model, one real human. In such case, the problem that arises is if the new body, the new creature, could be considered a human being or not. The bodies would or would not have a head, or a brain, aiming to avoid ethical debates. However, the status of the product of organ cultures was always rising voices against.

#### **The ontological status of such "human beings" without a head/brain**

Technically speaking, creating artificial organs is possible since it is just about transferring the technology from animal cells to human cells or from human cells to human cells. Definitely a cell is a cell be it animal or human. There are cases of some small human organs such as ears developed on mice for transplantation on humans. An issue in this case is the

support for developing such organs. This support seems to be a human body or at least it looks and acts as such.

First of all, the definition of the human being has to be considered. A human being is a complex human system of the body and soul working together, creating an entity and functioning in an organized way in order to accomplish complex social tasks. This entity should be capable of environmental interactions in any primary way (at least mechanical-touching, sense, feedback). An anencephalic newborn is still a human being able to interact with the mother and ask for food. If this newborn weren't considered a human being, the mother's status as a human being would be questionable.

Initially, the physical body was considered an inert mechanism, kept in movement by some technical forces (vital forces, both the mechanical and chemical ones). In the last years science evolved to a more theosophical approach of the human body, thus being brought into discussion as a big puzzle of many individual small "lives". Each of these lives has its own existence and altogether creates the whole body. In case of illness, the diseased cells create an activity against the general normal body's activity.



Life is a universal principle and represents the bedrock of the human body. Without this concept the human body is no more than a corpse. To talk about the body without considering the principle of life is like talking about a non valuable thing. The most important part of the definition of a human body is the concept of life [5]. Both the concept of life and the body define the personhood.

The Qur'an says that the human being is inseparable body and soul [6]. The Hindu philosophy considers the human being as a five-soul system under a Supreme Soul (atman) [7]. The spiritual can be reached by practice and devotion, from the lowest level to the highest one. According to the Christian belief [8], the first man, Adam, was made from dirt. The body was first activated by God's breath. All religions talk about a physical body but closely related with a spiritual being, the soul, the spiritual nature. The soul defines the personhood.

The first problem here is not to create a headless human being. The answer to the question about the humanity of this being is "yes" if we consider the theosophical theory. The body is composed from many cells, each one having its own activity, altogether determining a body. If this body is not considered a human being

then a non-encephalic newborn would not be considered a human being, either.

#### **What is the moral status of such a creature?**

Can such a product be harmed? Does it have rights? Could organs be morally taken from a headless "human" body from body culture?

The human life is defined as an integrated organism functioning as a whole. The human life defined at the end and at the beginning is considered using this principle of a complex system. For instance an embryo is seen as an organism with integrated biologic functions defining the human life at all stages of development. The embryo is a system of cells evolving and working together as a whole. At the other end, around the moment of death, the human is still acting accordingly. Death represents the loss of some of all the functions defining a human being for what it is. Death is a process starting long before the whole body stops working. Brain death does not mean the brain is completely dead. The cells, at the immediate the moment of death, are still functional, but they act chaotic, non-correlated.

In this case, using this principle of human life as a whole evaluating and dealing with all biological processes, it is considered this body is not a

human being. This creature would actually be just a body without a central nervous system. Without it it cannot feel pain. To do harm on it is questionable. A problem is the reply from a central nervous system.. To do harm would mean to create a gap in the medical status of this creature, a certain level of discomfort that would change the creature's attitude towards the environment. Without brain it would not be able to feel the pain to a conscious level but the body would answer to any type of pain using some local receptors able to do this. For instance, it is well known the experiment performed on a dead frog. One of its muscles was stimulated using electricity and the muscle responded to the stimuli by some contractions. That means the muscle itself was capable to react to an action but not that the frog felt the pain at all. It was just a chemical reaction at the cell's level.

Is it possible for this body to be harmed? The definition of harm implies an anatomic or psychological deviation from the baseline of a structure, a body in this case. From an anatomical standpoint, this creature can be harmed by removing some parts of it because in this case the harm represent the difference from the original model to the model without some pieces, a kidney or liver for instance. Technically speaking,

this animal can be harmed but without it feeling this.

The moral status of this body is rather different from an anencephalic newborn. The difference is in the moral implications on these cases. An anencephalic newborn is a human being, a human life that was ignited by the desire of parents. His medical status is just an accident since this headless body is just an environment artificially developed to sustain some organs that would be removed for the replacements of others.

The ethical implications creating these bodies are on the vision on life. Life no longer seems sacred. It tends to become a commercial, countable item. An anencephalic newborn is an accident while these bodies would be created by intentionally.

### **Why would headless humans make better or worse public policy?**

Compare such a plan for increasing the organ supply with financial incentives, presumed consent, non-heart-beating donors.

Since there is an increasingly request of organs and since the medical procedures for transplantedation have improved considerably in the last decades, the waiting lists for new organs is getting bigger and bigger every year.

The plan to increase the organ supply will provide the medical

world with new organs. This is obvious. The issue here is a matter of how ethical is this way of organ procurement.

The organ donation field is quite delicate since there are debates about the moment of organ removal. The non-beating heart organ donors or the organs coming from cadavers are two ways of harvesting organs. In terms of collecting organs from cadavers, the problems rose when the doctors approached the family for the consent upon organs donation. Many times the family refuses to get organs from their loved ones. This issue was covered by the presumed consent introduced in some countries. This presumed consent gave the doctors the opportunity to avoid asking the family about the consent for donation.

The voices against this procedure argued that avoiding the family consent means breaching the autonomy of decision. The problem is that if there are no directions or information about the patient's wishes, the family would be the best source. In this case the patient's autonomy is respected after death. The family is supposed to know about the patient's wishes. The presumed consent allows the medical team to remove organs such as cornea or kidney or others without any consent. The presumed consent is applicable in any case unless the patient previously

signed an express wish for the organs not to be removed. Those fighting against this procedure of organ harvesting argue with the breaching of a constitutional right (in the USA). The Fifth Amendment prohibits the others to take in possession private propriety without consent and without a just compensation.

The compensation in the organ transplantation case raises a new ethical issue. The issue of marketing this procedure [9,10] would determine huge issues of resource allocation. The poor would sell organs asking for the highest price on the market and those better off would afford any organ, offering as little money as possible. The deficit would be identified as a deficit in the health care system, too. The waiting lists for organs would be effective for those affording organs since the poorest would be exposed to the fortune in terms of getting an organ since they cannot afford one.

The voices pro presumed consent [11] argue that asking the family about the organ removal from their loved can create more frustrations and burdens. The system of presumed consent fails in checking out the absence or presence of the objection by excluding the family from the decision-making process.

Another way of getting harvesting organs is by obtaining them from the non-heart-beating cadaver donors.

The ethical issue is raised at the moment of organ removal. Debates upon defining death using human body signs, electrical brain activity or heart's activity split the opinion against and pro. Time in this procedure is very important since any second would determine the organ's deterioration (warm ischemia). The procedure with controlled timing solves such problems. On the one hand the problem of consent is solved since the family is involved in the decision-making process and the time and the place are controlled by the medical team.

Brain death as a measure of death occurs when there has been irreversible damage to the brain, resulting in a complete and permanent failure of brain function (the person stops thinking, sensing, moving, breathing, or performing any other function, although many of the cells in the brain remain "alive" following loss of brain function) [12], [13]. The heart can still beat spontaneously after brain death (the atria-ventricular node is still working as an autonomous source of electrical signal for heart). To use the brain death as a legal and medical definition for the end of life would save the quality of organs for transplant since they can be saved by maintaining artificial respiration. Providing oxygen to the body, the heart will beat and the body will be

preserved for a while until the organs' removal. Nevertheless, this procedure is uncomfortable for the families which know that a loved one is still kept with some body functions on in a transitory state.

The plan to use artificial human bodies without their heads would solve many problems risen by the procedures presented above in terms of breaching the individual wishes (this body cannot express its wish). Theoretically, these bodies represent a better source of organs than cadavers. But to create human bodies just to harvest organs would raise issues in terms of such bodies' rights as human beings. They would be living humans killed for organs.

So, a better way for organ procurement would be the cadaver organ donation. It would be a better idea to improve the public policies by educating the population in the utilitarian spirit in order to make them more comfortable around the moment of death. Anyway, there is no way of fighting against the cultural-religious background when the body and the soul are seen as a whole and donating would not be such a good idea.

### **Conclusion**

Technology is, anyway, evolving toward this replicating bodies direction. Somehow, we will meet

those days when body parts will be sold like any item on the market today. For sure that the black market for real organs already exists against the law. At any certain moment of the human history some switches initiated debates, regulations were proposed. The most important thing is the side effects to be kept as low as possible. There is no change without side effect. Things happen, interactions occur, effects produce then additional constraints come up.

#### References

1. Nappi F, Nenna A, Spadaccio C, Chello M. Pulmonary autograft in aortic position: is everything known? *Translational Pediatrics*. 2017;6(1):11-17.
2. Mariscalco MW, Magnussen RA, Mehta D, Hewett TE, Flanigan DC, Kaeding CC. Autograft Versus Nonirradiated Allograft Tissue for Anterior Cruciate Ligament Reconstruction: A Systematic Review. *The American journal of sports medicine*. 2014;42(2):492-499.
3. Boneva RS, Folks TM, Chapman LE. Infectious Disease Issues in Xenotransplantation. *Clin Microbiol Rev*. 2001 Jan; 14(1):1-14.
4. Denner J. Xenotransplantation-Progress and Problems: A Review. *J Transplant Technol Res*. 2014;4:133.
5. Abel DL. Is Life Unique? *Life: Open Access Journal*. 2012;2(1):106-134.
6. Abdel-Maguid TE, Abdel-Halim RE. The Qur'an and the development of rational thinking. *Urology Annals*. 2015;7(2):135-140.
7. Nagaraj AKM, Nanjgowda RB, Purushothama SM. The mystery of reincarnation. *Indian Journal of Psychiatry*. 2013;55(Suppl 2):S171-S176.
8. Perrett RW. Buddhism, euthanasia and the sanctity of life. *Journal of Medical Ethics*. 1996;22(5):309-313.
9. Schweda M, Schicktanz S. The "spare parts person"? Conceptions of the human body and their implications for public attitudes towards organ donation and organ sale. *Philosophy, Ethics, and Humanities in Medicine: PEHM*. 2009;4:4.
10. Akoh JA. Key issues in transplant tourism. *World Journal of Transplantation*. 2012;2(1):9-18.
11. Hammami MM, Abdulhameed HM, Concepcion KA, et al. Consenting options for posthumous organ donation: presumed consent and incentives are not favored. *BMC Medical Ethics*. 2012;13:32.
12. Wahlster S, Wijdicks EFM, Patel PV, et al. Brain death declaration: Practices and perceptions worldwide. *Neurology*. 2015;84(18):1870-1879.
13. Miller AC, Ziad-Miller A, Elamin EM. Brain Death and Islam: The Interface of Religion, Culture, History, Law, and Modern Medicine. *Chest*. 2014;146(4):1092-1101.