

ȘTEFAN ILOAIE

BIOTECHNOLOGY AND FAITH.  
RELATIVISM IN THE POSTMODERN MORAL.  
A CHRISTIAN-ORTHODOX APPROACH

Ștefan Iloaie

Rev., lecturer Ph.D. at  
the Faculty of  
Orthodox Theology,  
“Babeș-Bolyai”  
University of Cluj,  
Romania.  
Email:  
stefaniloaie@yahoo.com

The modern man lives in a more and more technologized world. This fact is obvious at every step of our life and, in the last decades, it went beyond any expectation. By using science and technology to procreate, prolong and sustain life, the man risks being dehumanized. Bioethics raises many questions that are waiting for an answer, and this answer is given by each person, according to his own values. One of the major challenges in the field of bioethics is human procreation, as the ethical boundaries run the risk of being crossed without a proper judgment. The Christian faith offers landmarks, so that the contemporary man may rediscover in it genuine support for his moral decisions in the realm of biotechnology.

**Key Words:**

bioethics,  
biotechnology,  
decision, Christian  
decision, family,  
procreation

### Science and technology today

The attitude of the modern man towards the way in which the scientific outcomes of biotechnology are applied is closely connected to his own values. The Christian view over reality places the understanding of life in connection with God-the Life, stating the existence of supreme good beyond the human being, and relating life to the transcendent. Another point of view, which is more and more present in the postmodern society, consists of understanding the meaning of life in an autonomous and relative manner, causing attitudes that find their justification in the man himself and not in the world, in his own beliefs, which is, eventually, the reason for the multitude of divergent positions regarding bioethics.

A few centuries have passed since science was parted from theological knowledge. The growing autonomy of man's power before the supernatural power, made possible by the technical revolution, creates the false impression of unlimited power in dominating the natural phenomena. The effort of having everything under control, of leading a life that is organized down to the most insignificant details reduces man's freedom of action and offers him the false feeling that he is the master of all things and of the entire world.

Increasingly, knowledge and technological development have allowed man to cross his own limits: there is only a small step from the threshold of his own hut to the entire Earth and the infinity of the Universe – the step of surpassing the finite and plunging into the infinite. After finishing the immediate exploration of nature, the man has started searching in himself. The discovery of the atomic elements led to the plastic representation of the human genome: the mystery of the human individuality becomes a mere sketch placed, simply and discreetly, but conclusively, near the

immense research laboratories. Finally, there's the blending of the two goals: uncovering the veil that was hiding the infinite and the veil covering the mystery of man – and their fulfillment through various and sophisticated technologies, building another stage that the modern man is about to step on. From a creature he tends to become a creator, from man god, from finite infinite, especially when the ideological, social and economic contemporary context urge him to do this.

Beneficiaries of the top-technology, caught in the daily routine, always tempted to search for immediate goals, introduced in the endless circuit of the Internet, having our life temporary sustained by last-generation medical devices, driving cars conducted through satellite, having the world at our feet by pressing “enter” on a keyboard of a computer, many of us forget that all these actions that fill our lives and are considered meaningful in themselves do not uncover anything but the absence of a true meaning and our need for a meaning, if they are not doubled by the religious feeling, by the spiritual power of living in Christ.

We use technology currently, some of us more, some less, because there are quite a few people that do not benefit at all from it. The problem of control, of the institutional decision regarding the standards and limits for using and experimenting the new technologies, the problem of the criteria used to make decisions cannot be ignored by the society.

The human freedom of action is not against the intervention of God in creation, since the research and the scientific discoveries were allowed by the Creator's will. The only problem as far as technology is concerned – from the Christian point of view – concerns its goal: does it really serve man as a being in his relation with God, or, on the contrary, does it cause and maintain the alienation from God. In the authentic meaning of the relation between man and God, technology is good in itself, as it is a result of searching for the truth, of researching into the unknown, of surpassing the previous knowledge. However, outside the relation with the divine, technology transforms man from its user into a mere slave.

### **The Impact of Bioethics on Human Life**

The unprecedented development of the bio-medical technologies in the last three decades forced the modern man to face some questions regarding Bioethics – the Ethics of life – a life that, thanks to the technological development, is placed now at the crossroad of human decision: is the malformed embryo acceptable? Can you give birth to a child regardless of your age? In order to have a child, is it right to hire a surrogate mother? Can you shut off the medical devices that keep your loved ones alive and be sure you are not killing him? Is it right to have one of your organs cloned before having been affected by cancer? There are several types of questions one may ask when it comes to issues such as those mentioned above:

- questions regarding medicine, theology, science, philosophy, law, sociology, etc.
- questions related to one's conscience
- questions of faith as well.

It is worth mentioning the fact that these are not just hypothetical interrogations, but they lead to concrete actions.

The possibility of crossing these limits is identical to the removing of the boundaries that the man once felt as coming from the divinity, such as in the case of restraining or increasing the chances of a child's birth, for example. The doctor plays the main part in the process of generating life: the physical barriers of the mother and/or the father, making impossible the birth of a child, are eliminated. The fertilization becomes an artificial process, performed by machines, and the "fetus" is then introduced into the mother's womb or in another woman's womb who becomes the "carrier". The embryo can be diagnosed quite early as having malformations and these can be resolved or the removal of a future possible human being is decided. "The attempt to assist God in creating new people places us on a path full of moral difficulties. The same thing can be said about the attempt to save the creation of God, by using the vulnerability of another human being that cannot protest: the embryo."<sup>1</sup>

Thus, one of the continuous justifications for the biotechnological development is the wish, correct up to a point, of many people, to prolong the state of health and the life in their own and in their family's benefit, to increase the physical comfort, to remove the physical suffering and even the moment of death. However, very few are going to benefit directly from some of the scientific discoveries, as some of the applications are very expensive, which makes them accessible only in a discriminatory manner. Far from bringing this benefit to the majority of people, some scientific results will just increase the distance between the rich and the poor.

Unpredictable and permanently actualized, the biotechnological research can never be stopped, and will never be stopped. If we take a look at the last three decades, the conclusion is that, in the nearest future, science will provide higher and higher limits for the human kind. The leaps forward will be greater and greater and they will surpass all expectations, but all of these will also produce important transformations in the personality, mental, psychological, social and even religious structures. The ethical aspects already raised by the medical technologies and the way they had been applied are so numerous and many of them already unsolvable, so that the reality just confirms the fact that "the society does not morally adapt fast enough to the changes produced by the latest scientific discoveries"<sup>2</sup>.

There are many positive aspects in the use of science and technology in the medical field, but there are also negative examples. Seen as complementary, the two possibilities show us that the good or bad is given

by the responsibility of man, who is asked today to decide in a situation in which, in the past, he didn't need to decide.

Bioethics as a field has the ability to decide on the way in which the biotechnologies are used. However, the decision is made depending on the personality of each person, of the capacity to assimilate the specific features of the society, the values he/she believes in, the dynamic of his/her religious life. Thus results the multitude of positions towards the use of technologies in the field of life. Some consider this the human being's chance to survive. Others see the danger of destroying the humanity. Some consider that human's life must be extended, no matter what means are being used. Others believe that by using the same means, the human dignity is questioned, while some consider that the most important element is every human's life. Others believe that the attitude of every human towards his life influences the general concept of life. In a pluralist society, with individualized and extremely diverse values, we cannot adopt a common attitude towards the way in which the humanity, not the man himself, uses technologies in creating life, in maintaining and prolonging it.

Generally, progress is achieved step by step, success is built on failures, the future of humanity develops having the past as its foundation, but when the price paid is so high (it is impossible to quantify the value of human life), many and serious questions arise. Not to mention the fact that the use of biotechnologies certainly implies risks and abuses, without anyone ever being able to list and describe all of them.

Bioethics is one of the fields in which a dialogue between science and religion or faith can be started in order to discuss each unique case, with the active participation of various types of mentalities, depending on the religious and social values that each man possesses. The fact that the situation is "of life and death", that the decisions regard effectively the life of the person and his fellow humans, turns Bioethics into a domain in which the convergence of the religious formation with the sciences is a maximum one.

The necessity that the specifics of each field meet not just for interrelation and knowledge, but also for discovering and formulating the best ethical solutions, is obvious in the case of Bioethics. A dialogue begins between the scientific knowledge and the complex personality of the patient and of the doctor, and the result is the applying of technology to the specific features of the social, cultural, philosophical and religious environment.

The diversity of bioethical situations which are uncertain from the perspective of the human being's actions against another human, of science's possibilities and of the limits of the human acceptability imposed by the moral-religious values turn Bioethics into a field of encounters, dialogue, and debates.

Bioethics has been defined by most researchers as being situated at the boundary of many other disciplines, which act together in the decisional process regarding the human life. The well-known Catholic theologian Elio Sgreccia believes that Bioethics represents a new methodology of interdisciplinary confrontation between biomedical and human sciences, one of them being theology itself. Actually, even the father of the term “bioethics” – the Dutch Van Rensselaer Potter – considers that Bioethics is a new type of wisdom, the necessity of which it is betoken in indicating the ethic criteria of using the scientific knowledge, so that the social good – he affirms – may be granted. He also named the new domain “the science of survival”. The finality of Bioethics is given by the rational analysis of the moral problems regarding biomedicine and their connections with law and human sciences. The elaboration of ethical directions based on the values of a person is pursued, “through a rational and methodologically and scientifically adequate substantiation”<sup>3</sup>.

From this point of view, Bioethics has the chance of “mediating two different ways of investigating the world, the scientific one and the theological one, on the condition that the type of Moral that makes the heart of the decisional reflection is a theological one. It is well known, though, that the secularized world includes plenty of ethics and axiologies, which belong to different types of anthropologies, resulting into the diversity of the types of Bioethics.

### **The Attitude of Christians towards Biotechnological and Bioethical Development**

For the Christian world, it is already a great challenge to accept the responsibility of getting involved in the process of infusing the different social postmodern mentalities with the essence of the way of thinking in Christ. Therefore, a field as interdisciplinary as Bioethics can be used with many benefits for the human kind, maybe as a space of transparency.

In a world that is permanently changing, the Christian needs to find again the stability of values, both for himself and for others, too. One of the greatest challenges of our times for society, institutions or individuals is the question: how can we achieve such a moral desideratum in a social context that is rather opposed to imposing some restrictive rules, in which the opinion of the individual is preferred to that of the community, even the ecclesial one?

The increasing autonomy of man before the supernatural power, granted by the technical revolutions, creates the fake symptom of unlimited power in dominating the natural phenomena and, farther, the supernatural ones. “...The conception that, in its essence, technology is just something that man can handle still persists. However, in my view, this is impossible. And that is because, in its essence, technology is something that man cannot automatically submit.”<sup>4</sup> The attempt to place everything

under control, to offer a life that is organized up to the slightest details, reduces the human being's freedom of action – though it is done in the name of freedom – and offers him the false feeling that he is the master and dominator of things and of the world, and, recently, of life itself. We need to develop a true culture of Life. “The first step, fundamental in order to achieve this cultural turn, consists of forming the moral conscience regarding the immeasurable and intangible value of every human life. It is of the greatest importance to rediscover the unbreakable connection between life and freedom and to discover the constitutive connection that united the freedom with the truth”<sup>5</sup>.

The modern technologies are characterized by their novelty. More and more scientific and technological accomplishments, once perceived as impossible to create, function today and, in a short while, in a way that we can just imagine today, new ones will replace many of them.<sup>6</sup> The new technological discoveries are surprising in many ways, because, placed between the two possibilities to use them in a positive manner or in a negative one, the human being is forced to decide in circumstances in which he doesn't have other points of reference, not even religious ones. The only real support seems to be coming from his own values. The extent to which these values (but what are they and who confers validity to them?) will occupy an important part in his life influences the degree in which the act of deciding will have positive outcomes. The few situations presented above clearly reveal the truth that the only valid criterion in making decisions is the human responsibility, and responsibility plays the decisive role in activating free will. For the true Christian, the greatest challenge of an extremely technologized era will be, and already is, to choose between yes and no.

The mission of the Church is to reset technology to its proper place, to rediscover the purpose for which it was meant to be used by the human beings. It is already a proven fact that the ideal of living better is not necessary identical to suffering less, that having everything you wish for doesn't mean you won't feel the lack of something else, that living for longer does not mean living forever. The equation is granted another value, however, if technology falls under the Christian purpose of man, that of knowing God and meeting Him, of being useful to his fellow being, of protecting the world and the creation in order to present them to the Creator, prepared for the great encounter. In the same sense, the technology used for the organ transplants becomes proof of your love for your fellow being; they help prolong life and turn into an opportunity to prepare and work for the salvation.

Being the result of human reason and of the search for the truth, technology is good in itself. Nevertheless, outside the relation with the divine, the present-day human being risks being transformed: he turns himself from a user of a technological device to its slave, from creature to creator. The sense of value of the attitude towards technology is given by

the good or the bad manner in which it is used, and the postmodern morality – with its relativist and ambivalent feature – makes the “correct” relating towards technology even more difficult.<sup>7</sup>

The Church's attitude towards the difficult problems of Bioethics – and none of them is simple! – is one through which, even though it is not directly stated, the Church seeks to give to every man the feeling that he is integrated into the Church community. This means sharing the love of others, especially when that person faces a terrible challenge. The Church is a single body, in which people, according to Saint Paul (1 Cor. 12, 24-27), are its organs. In the spiritual body, things should happen as they do in the physical one: when a part is suffering, the other components come to help and support it. There is a responsibility of the human community towards the one that suffers – no matter what kind of suffering –, and the care should be proven by supporting, through love, through sharing the power that the whole possesses. Let us be closer and warmer with our fellow humans!

It is a paradox the fact that, after applying the principles of Enlightenment and after the breach between reason and faith was created, between science/technology and theology, the 20<sup>th</sup> century brought an attempt of reconciliation between them, and the beginning of the 3<sup>rd</sup> millennium is now suggesting a dialogue between them<sup>8</sup>. Such a changing in views was determined by the development of biotechnologies and by their application to the human beings, with the concern linked, optimistically, to the humankind's impossibility to manage the effects of this application and, pessimistically, to the prediction that man will be destroyed due to his excessive wish for knowledge.

Thus it came to the point where it became clear, in the last two decades, that it was necessary to find the limits of the technologies' applicability, boundaries generated (depending on the proponent) either directly by faith or by the “vicinity” with it, in what we call “moral/ethics of the technology”, “scientific ethics”, “bioethics” etc. That is because the absence of limits may lead to what Olivier Clément called “the technocratic fatality”, starting from the consideration that all that is possible – through reason – must be accomplished, too<sup>9</sup>.

### **The Christian family and the challenges of Biotechnology**

Progressively, by breaking the natural boundaries through the application of the scientific results in medicine, the modern man turned it into an ideal, even a utopia, believing that medicine – self-surpassing itself – can become perfect. But medicine and all its accomplishments will remain imperfect<sup>10</sup>, despite the fact that man will think and hope otherwise! From this point of view, the case of family and the new technological methods of procreation are very illustrative.

The biotechnologies for reproduction define the technological intervention of medicine in the human procreative act, managing to remove some of the physiological limits, with the aim of giving back “the joy of biological maternity” to many people and families. Nevertheless, there are a lot uncertain ethical situations caused by the applying of this type of technologies. Let us take as an example just a few of the situations created through the usage of biotechnologies in the act of human procreation:

- The multiple embryos resulted through the process of in vitro fertilization;
- In the case of the same process: the killing of some of the embryos implanted in the mother’s womb, in order to “sort” them and to give birth to a single child.
- The existence of embryo banks: which is the judicial state of the embryo? Is it a person from a judicial point of view, or just a “potential person”? Who is his “owner”? What period is “morally” recommended for their preservation?
- What is the “most appropriate” aim for the use of the multiple embryos? Is it in the biomedical research, is it for discovering the cause of some diseases, and then, once they have served the purpose, they can be removed? Is it for the manufacturing of cosmetic articles? It is better that they should be destroyed?
- Genetic tests on human embryos.
- Frozen multiple embryos. Cryobiology has created the context for the concept of “deep-frozen human life” to appear, although the reality denies that this could be “life”.
- Treatments for infertility, applied to very old women, after menopause, attract the question on the morality of maternity after a certain age.

The biotechnical solutions for human procreation are very numerous, but maybe the fact that the interventions on the organism of the woman has especially attracted a negative reaction too; the new technologies „dehumanize the woman”.

Family represents, above all, the place in which the human being becomes visibly the one that continues the act of creation that God invested him with, by the fact that he delivers life, too. The direct intervention of the Creator in bringing the man to existence reveals us the truth that the life received by man is the space in which God Himself will become manifest. But the concept of life in itself, with its spiritual dimensions, had to be modified by man. It reached a point where the actions meant unveiling the presence of God in creation, affecting the authentic sense of life and also the person’s dignity. “The Church is the first that praises and proclaims the intervention of intelligence in a work

that binds so tightly the rational creature to her Creator, but the Church affirms that this has to be done by respecting the order established by God".<sup>11</sup>

In most cases, technology substitutes itself to the natural act of procreation, especially when medicine does not pursue or cannot cure the biological anomaly that prevents a couple from having children. For the spiritual life of the family, for the relationships established inside the family, especially after the birth of children, the fact that in the moment of conception the couple lacks conjugal communion and love may prove to be quite important. That is why the dissociation between procreation and sexuality raises another deeper and more serious issue: lack of connection between the affective filiation and the biological one. Thus, not only the conjugal relations, but also the rest of relationships inside the family become unnatural.

Along with the use of technologies in the medical-assisted procreation, we notice as well the introduction of individualist conceptions inside the family, conceptions that ignore the life in communion. The family is the first to give an example of community and communion, both for the couple, and firstly for them, and for the children and thus, the social communitarian spirit develops. The interest shown in the wish to have children at any price bears a certain individualist mark. The same methods infinitely multiply the disrespect shown towards maternity and its profound spiritual meaning.

The biomedical assisted-reproduction technologies interfere with the privacy of the physical relations between husband and wife, but the present society makes us ignore the spiritual dimension of life. The technology made available to the family is granting it the illusion that it could become the master of life, an attribute that can only be given to God. "The new technologies raise the problem of the limits that have to be established in the artificial creation of human life".<sup>12</sup>

### **The Christian concept of decision in the realm of Biotechnology**

Because of the challenges in the field of biotechnologies, the contemporary Christian is often confronted with the absence of certain criteria of his own faith in what regards Bioethics. On one hand, the ethics of life is sensitive from a conceptual point of view, being situated on uncertain grounds, a system that has specific features related to its multidisciplinary structure that man usually is not aware of. It is a space in which the amazing scientific development that evolves day by day produces the modification and instability of assertions, as an effect. On the other hand, the Christian believes in the existing of borderlines between this world and the other world, understands the fragility of the present life, he believes that it should be protected, but not at any price, affirms the existence of the soul and the perishable character of the body. Between

these two aspects, there is not necessarily a conflict, even though there are Christians, it is true – a few of them – who totally refuse the use of technologies. Both the professional ethics and the Christian morals suggest some limits in the use of biotechnologies. The most important limits should be unanimously accepted and applied, and each person, depending on his or her values, should apply those of lesser importance. Robert Pollack shows that most of the believers, no matter what faith they have, regard medicine “as an aspect of our ability to assume a role that our ancestors were forced to live for God”.<sup>13</sup>

The Christian and theological thinking is confronted with the difficult mission of taking an attitude towards the specific problems of Bioethics, that our world is more and more confronted with, and, sometimes, in a tragic way. The attitude of Church and, consequently, that of theology in the field of Bioethics is needed, as the bioethical decision is made in the spirit of the man's Christian education. It depends on the dynamics of the spiritual life he possesses, being linked to the salvation, because every human action relates us with human fellows, our God and us.<sup>14</sup> On the other hand, the establishment of bench-marks represents the answer to the questions that society addresses to Church, which is a thesaurus of moral values that should be considered when an issue involving Bioethics occurs, in order to eliminate doubts and question marks, as much as possible<sup>15</sup>. The role of Theology in Bioethics becomes relevant in the process of establishing moral values in the modern society, placing Christ Himself in the center. The moral attitude towards contemporary problems, especially those of Bioethics, depends on the way in which we relate to the spiritual values, thus leading to the polarization of some concepts.<sup>16</sup>

Technology, but especially the way in which it is used, bounds the human to the things he possesses. The reason has made the postmodern man believe he has conquered more and more knowledge about the mysteries of the universe and the mysteries of his life. The human-being ruling the outside and inner world makes him unique, but the actions laying under his rule, manifested through the power of mind, represent the overtaking of some realities of the ancestors of “the recent man” (according to the expression of Horia-Roman Patapievici). If God gave the present man, from this point of view, a greater power than the one given to his ancestor, it is also true that He gave him a greater responsibility, too.<sup>17</sup> Scientific and technological discoveries, as effects of using the reason, confer the feeling of external power to man, but – from the perspective of faith – does not eliminate the internal moral duty of applying the technological results within certain ethical and moral limits. The bench-marks of the values that man possesses can be analyzed from the way in which man imposes to himself these limits which were formerly imposed by an authority external to him.<sup>18</sup>

In the attempt of conferring a Christian meaning to the use of technology, two essential statements can be expressed: 1. one should,

without doubt, place Christ in the center of his life, when dealing with a bioethical challenge – John Breck suggests that the Christian should even question himself: “How would have Christ thought in this situation?”. 2. The attempt to solve different situations by permanently relating to faith, both the patient and the doctor following their human, personal dimension, vertically related in the absolute, and horizontally in the society, in the same time showing special care for the body, which cannot be considered an object.

Science and technology have become such powerful realities in man’s hand, that bioethics needs to deal with the fact that humans started “playing the part of God”<sup>19</sup>. There are people who create life (in vitro fertilization or any other form of crossing the limits of natural creation; cloning) or judge and decide about life and death, actions that are specific to the Creator and were granted by Him, through reason – but only partially – to man. There are exaggerations too, formulated lately under the term “technopanic”: the panic of man when encountering technology or the fear of faith towards the reason manifested through de scientific discovery. Apart from this extreme views regarding the matter, we discover, though, the possibility of binding reason and faith in the life of the postmodern man, who – depending on the understanding of his own faith, (it’s true, if he has one!) – can behave as both a faithful man, and as a normal person using technology. If we see this solution just as a moralizing one, coming from the outside, from the scientific and technological systems, and not one that is caused and included in the internal mechanisms of the processes themselves, we will end up applying again a cold, external, distant recipe that risks preserving and increasing the crisis of the present ethical relativism.

## Conclusions

The human being has always wanted to cross his own boundaries when it comes to knowledge. However, knowledge is just the means of making a discovery, while the discovery is meant to serve the purpose of the person searching for it, the ideal that leads him during the entire process of acquiring knowledge. If the purpose is good in itself – the good being determined by the relation between freedom and truth – then the means represented by knowledge and discovery are good as well.

We live in a time when the good itself becomes relative through the dissolution of the eternal values that it appeared to have. The quick changes that occurred in people’s mentalities in the postmodern society, the social, cultural, economic and political disorder, the migration of populations, the secularization eroding the religious feeling, they all generated, together with the new biotechnologies, new situations and the value of the human being seems to be found only in himself. Adopting a loose, unrestrained, autonomous attitude in life developed, over the past decades, a perception

over the meaning of life relative to purposes the human being tends to choose according to his own will and less to the transcendent, objective good.

The modern technologies are those that induce relativism to life, despite the fact that they were created to serve it as well as possible. Perceived as having a purpose in themselves, these technologies do not satisfy the human being any more. He is more and more tempted by any novelty, by increasing the comfort – not “minimal” any more – by crossing the limits of the scientific and technological knowledge, considered acceptable until yesterday. Combined with faith, which has the capacity to focus attention on what is “beyond”, technology turns from a purpose in itself into the means of achieving stability instead of relativity.

That is why, from a Christian point of view, the human being, facing the development of modern technology, needs to recognize and admit the absolute sovereignty of God. He must know how to carry within himself the image of God and how to find the likeness with God. He should be aware of his participation in the creation of the world. Finally, he must perceive each encounter with technology as a form of recognition of the divine presence in the world.

## Bibliography

Agazzi, Evandro. *Right, Wrong and Science: The Ethical Dimensions of the Techno-scientific Enterprise*. Amsterdam/New York: Rodopi, 2004.

Astărăstoae, Vasile and Stoica, Ortansa. *Genetică versus bioetică*. Iași: Polirom, 2002.

Astărăstoae, Vasile, Maria-Christina Ungureanu and Ortansa Stoica. “Probleme etice și legale ale noilor tehnologii reproductive”. *Revista Română de Bioetică* 1, 2 (aprilie-iunie 2003): 53-67.

Beauchamp, Tom L., LeRoy Walters, Jeffrey P. Kahn and Anna C. Mastroianni. *Contemporary Issues in Bioethics*. Belmont CA: Thomson/Wadsworth, 2008.

Beaufils, Dominique, Boris Bobrinskoy, John Breck et al. *Bioetica și taina persoanei. Perspective ortodoxe*. Translated by Nicoleta Petuhov. București: Editura Bizantină, 2006.

Bohlken, Eike and Siegbert Peetz. *Bildung, Subjekt, Ethik: Bildung und Verantwortung in Zeitalter der Biotechnologie*. Darmstadt: Wissenschaftliche Buchgesellschaft, 2007.

Breck, John and Lyn. *Trepte pe calea vieții. O viziune ortodoxă asupra bioeticii*. București: Editura Sophia, 2007.

Budinger, Thomas F. and Miriam D. Budinger. *Ethics of Emerging Technologies: Scientific Facts and Moral Challenges*. New Jersey, 2006.

Chadwick, Ruth. *The Concise Encyclopedia of the Ethics of New Technologies*. San Diego: Academic Press, 2001.

Crețoiu Silvia-Mariana and Cristina Iacob. „Biotehnologiile moderne și emergența problemelor bioeticii”. *Revista Română de Bioetică* 4, 4 (octombrie-decembrie 2006): 75-79.

Curzer, Howard. “The Ethics of Embryonic Stem Cell Research.” *The Journal of Medicine and Philosophy* 29 (2004): 533-562.

Engelhardt, H. Tristram jr. *Fundamentele Bioeticii Creștine. Perspectiva ortodoxă*. Translated by Mihail Neamțu, Cezar Longhin and Ioan I. Ică jr. Sibiu: Editura Deisis, 2005.

*Etica aplicată*. Edited by Adrian Miroiu. București: Editura Alternative, 1995.

Herrgen, Matthias. *Wissenschaftstheoretische Analyse der Anthropologie im biotechnologischen Zeitalter*. Hamburg: Kovac, 2008.

Hofmann, Bjørn. “The inference from a single case: moral versus scientific inferences in implementing new biotechnologies.” *Medical Humanities* 34, 1 (June 2008): 19-24.

Hook, C. Christopher. “Techno sapiens: nanotechnology, cybernetics, transhumanism and the remaking of humankind”. In *Human Dignity in the Biotech Century: a Christian Vision for Public Policy* edited by Charles W. Colson and Nigel Cameron, 75-97. Downers Grove, Ill.: InterVarsity Press, 2004.

Hook, C. Christopher. “The techno sapiens are coming.” *Christianity Today* 48, 1 (January 2004): 36-40.

Ionașcu, Juvenalie. *Teroriștii uterului. Terorism științific și etica începuturilor vieții. Eseu de bioetică a gestației*. București: Editura Anastasia, 2002.

John Breck, *Darul sacru al vieții*. Translated by Irineu Pop Bistrițeanul. Cluj-Napoca: Editura Patmos, 2001.

Klotzko, Arlene Judith. *O clonă pentru fiecare? Știința și etica clonării*. București: All, 2004.

Larchet, Jean-Claude. *Etica procreației în învățătura Sfinților Părinți*. Translated by Marinela Bojin. București: Editura Sofia, 2003.

Maximilian, Constantin, Marius Bembea and Valerica Belengeanu. *Genetica, început fără sfârșit*. Timișoara: Editura de Vest, 2001.

*Medicii și Biserica* vol. 4: *Familia, nașterea, tehnologii medicale de reproducere asistată*. Edited by Mircea Gelu Buta. Cluj-Napoca: Editura Renașterea, 2006.

Mitchell, C. Ben, Edmund D. Pellegrino, Jean Bethke Elshtain, John Frederik Kilner and Scott B. Rae. *Biotechnology and the Human Good*. Washington: Georgetown University Press, 2007

Moldovan, Elena. "Biotehnologia și căutarea perfecțiunii – corpuri fără vârstă" *Revista Română de Bioetică* 3, 2 (aprilie-iunie 2005): 40-44.

Rollin, Bernard E. *Science and Ethics*. Cambridge, New York: Cambridge University Press, 2006.

Sandel, Michael J. *Plädoyer gegen die Perfektion: Ethik im Zeitalter der genetischen Technik*. Berlin: Berlin University Press, 2008.

Schubert, Hartwig von. *Evangelische Ethik und Biotechnologie*. Frankfurt am Main; New York: Campus Verlag, 1991.

Scripcaru, Gheorghe, Aurora Ciucă; Vasile Astărăstoae; Călin Scripcaru. *Bioetica, științele vieții și drepturile omului*. Iași: Polirom, 2000.

Smith, George P. *The Christian Religion and Biotechnology: A Search for Principled Decision-making*. Dordrecht: Springer, 2005.

Zanc, Ioan and Iustin Lupu. *Bioetica medicală. Principii, dileme, soluții*. Cluj-Napoca: Editura Medicală Universitară „I. Hațieganu”, 2001.

Zoglauer, Thomas. *Konstruiertes Leben. Ethische Probleme der Humangentechnik*. Darmstadt: Wissenschaftliche Buchgesellschaft, 2002.

## Notes

<sup>1</sup> Vasile Astărăstoae, Maria-Christina Ungureanu and Ortansa Stoica, „Probleme etice și legale ale noilor tehnologii reproductive”, *Revista Română de Bioetică* 1, 2 (aprilie-iunie 2003): 66.

<sup>2</sup> Silvia-Mariana Crețoiu and Cristina Iacob, „Biotehnologiile moderne și emergența problemelor bioeticii”, *Revista Română de Bioetică* 4, 4 (octombrie-decembrie 2006): 78.

<sup>3</sup> Elio Sgreccia, *Manuale di bioetica. 1: Fondamenti ed etica biomedica*, (Milano: Vita e Pensiero, 1994<sup>2</sup>), 30.

<sup>4</sup> Martin Heidegger, „Ultimul interviu”, in *Filosofie contemporană*, Translated by Alexandru Boboc (Bucharest: Editura Garamond, s.a.), 275. „The fact of losing of the moral conscience by some scientists is not something new, and it could be the beginning of a dangerous change in the way we perceive human nature. It's necessary to distinguish between the gathering of knowledge and the way it is used. Science and ethics support the open rationalization, capable of real wisdom... All the dilemma and collisions that the technical-scientific progress has created and continues to create need the promotion of a major responsibility regarding the utilization of scientific knowledge and of their implications on a long term on

the human being. What lacks today is a new model of value of the spiritual life.” – Teodor Vidam, *Introducere în filosofia moralei*, (Cluj-Napoca: Editura Inter-Tonic, 1994) 76-177.

<sup>5</sup> Encyclical Letter *Evangelium vitae*, 96.

<sup>6</sup> We already talk about robots, the friends working in our houses or in the streets, which will ensure the visual contact directly through the internet with the child in the house and the family doctor or the bank, making the existence of the human being easier and more comfortable.

<sup>7</sup> Sgreccia, 207.

<sup>8</sup> Skouteris, Constantine V., „The Progress in Biotechnology and the Human Person”, *Studia Universitatis Babeș-Bolyai. Revista de bioetică și teologie* 1 (2007), 38-39. The author of the study writes: „Thus, the rigid, monistic and exclusive relation between Science and Theology has began to surrender. If the results of the scientific research regard the man and if Theology also has the human being and the society as its center of interest, then we must search for the link between Science and Theology, since both of them have man, life, prosperity, progress and the balance of man as objectives” – Skouteris, 39.

<sup>9</sup> Olivier Clément, *La Vérité vous rendra libre. Entretiens avec le patriarche oecuménique Bartholomé I<sup>er</sup>*, (Desclée de Brouwer: Édition Jean-Claude Lattès, 1996), 212.

<sup>10</sup> Robert Pollack, *The Faith of Biology and the Biology of Faith: Order, Meaning and Free Will in Modern Medical Science*, (New York: Columbia University Press, 2000), 82.

<sup>11</sup> Encyclical Letter *Humanae vitae*, 16.

<sup>12</sup> John Breck, *Darul sacru al vieții*, Translated by Irineu Pop Bistrițeanul (Editura Patmos, Cluj-Napoca, 2001), 222.

<sup>13</sup> „By acquiring the capacity to change the natural world through science – think about the breaking of clouds in order to obtain rain – we take the permission to act by imitating God, curing the disease and increasing the fertility through medical interventions” – Pollack, 81.

<sup>14</sup> Thomas Efthymiou, „La technique doit-elle prendre le dessus sur une médecine humaine?”, in *Bioéthique orthodoxe* I, (Libris Édition: Paris, 1998), 166.

<sup>15</sup> „We need deep faith and exquisite godliness in order to acknowledge our own limits when we make moral decisions, for addressing the appropriate authority... The first and last decision we must make is that of submitting our moral deliberations to the One who is the Head of this Body, with the sole purpose that every deed we are going to make in a certain situation needs be for His Glory and for the salvation of those entrusted to us by Him” – Breck, 75.

<sup>16</sup> The differences between the Christian-type and the secular-type, Bioethics are more and more concrete in the last decades. See other points of view: H. Tristram Engelhardt jr, *Fundamentele Bioeticii Creștine. Perspectiva ortodoxă*, Translated by Sebastian Moldovan (Editura Deisis: Sibiu, 2005); also: Skouteris, 38-47.

<sup>17</sup> Regarding the moral responsibility of man towards the new technological discoveries, see Thomas F. Budinger and Miriam D. Budinger, *Ethics of Emerging Technologies: Scientific Facts and Moral Challenges*, (New Jersey, 2006), 171-173.

<sup>18</sup> Sgreccia, 689.

<sup>19</sup> Ruth Chadwick, *The Concise Encyclopedia of the Ethics of New Technologies*, (San Diego: Academic Press, 2001), 336.