

*Presidenza del Consiglio dei Ministri*



**BIOETHICS AND EDUCATION  
IN SCHOOLS**

16<sup>th</sup> July 2010

## PRESENTATION

The document examines the relationship between `education in bioethics and `citizenship education` of the new generations: the first is an integral part of the second, in educating the future citizen to make conscious choices in the sphere of bioethics, biolaw and biopolitics. The NBC believes that in order to take part democratically in the public debate on choices that affect the lives of all human beings, such as the choices regarding important bioethical issues, information despite its primary role, is however not the only requirement, education is also necessary. This difficult and complex education cannot be left to chance or entrusted to the messages of the old and new media. The Committee recalls the guidelines adopted by international bodies in recent years, and also draws attention to some good practices tried out in the field of education in bioethics in several countries inside and outside Europe.

The Committee focuses on examining education in bioethics at a national level. While recognizing the importance of the many initiatives carried out by universities, research centres, associations, or promoted by principals and teachers the opinion highlights the episodic and unstructured nature of such initiatives. The NBC recommends, instead, that education in bioethics should be carried out in a continuative manner by teachers who have been appropriately trained in order to ensure that young people obtain the basic preparation to actively participate in the bioethical debate, promoting the development of independent moral judgement and critical awareness regarding the major issues of bioethics, in compliance with the fundamental ethical values in a pluralistic and democratic society. The Committee recommends that this education should be conducted through pedagogical approaches and teaching tools consistent with educational objectives, starting from the documents of the National Bioethics Committee and International Organizations.

The NBC, in the document, also refers to the resumption of cooperation between the MIUR and NBC attested by the signing of the Memorandum of Understanding on July 15<sup>th</sup> 2010, which it is hoped will fully exploit the opportunities offered by the Law n.169 of 30<sup>th</sup> October 2008, with the inclusion of the teaching of *Citizenship and Constitution*.

The document derives from a working group coordinated by Prof. Marianna Gensabella, who has prepared the draft text that was discussed with Profs. Salvatore Amato, Luisella Battaglia, Lorenzo d'Avack, Maria Luisa Di Pietro, Laura Guidoni, Assunta Morresi, Demetrio Neri, Andrea Nicolussi, Laura Palazzani, Monica Toraldo di Francia, Grazia Zuffa. Within the working group Prof. Andrea Porcarelli (Scientific Director of the Portal of Bioethics and Professor of General and Social Pedagogy at the University of Pisa) and Prof. Domenico Simeone (Associate Professor of Education Sciences and Training at the University of Macerata) have been audited.

The document was approved in the plenary session by Profs. Amato, Battaglia, Bompiani, D'Agostino, Dallapiccola, d'Avack, Di Segni, Forleo, Garattini, Gensabella, Isidori, Morresi, Neri, Nicolussi, Palazzani, Piazza, Scaraffia, Toraldo, Di Francia, Umani, Ronchi, Zuffa. Only Prof. Flamigni voted against and drafted a personal remark giving reasons for his dissent. Other personal remarks have been received from Profs. Da Re, Possenti and Nicolussi. Profs. Canestrari, Forleo and Proietti and Dr. Guidoni, absent from the meeting, have expressed their support. Prof. Antonio Da Re, although not involved in the vote because absent, has expressed his abstention.

Prof. Francesco Paolo Casavola  
President of the NBC

## Bioethics and education in schools

### 1. Towards bioethical citizenship

There is an intrinsic link between bioethics and education, the same link also binds ethics and education: educating to reflection on moral values and principles. Ethics applied to life sciences and health care, bioethics comprises in this link the complexity of an interdisciplinary approach which combines the two Kantian questions regarding science and ethics. The question raised by science of “what can I know?” intersects with the ethical question of “what should I do?”, and introduces a third new question: “what ought I or oughtn’t I to do with this knowledge?” The “possibilities” of science must come to terms with the “licitness” of ethics, the boundaries being drawn by duties and rights. At the same time, in the light of scientific knowledge and new technological applications, ethics has to redefine the sphere of duties and rights, and succeed in outlining “new rights” and conversely “new duties” and “new responsibilities”.

Therefore, the relationship between bioethics and education is complicated, compared to ethics, by the passage through scientific knowledge which not only “can”, but, in its essential data, “must” be acquired and shared by *all* moral subjects, in order to find an answer to the new ethical question. An initial reflection must be dedicated to the value of science as a “public good”, bearing in mind that it is essential to the development of society. Hence, the strongly felt need in our time and especially in our country, for a quantitative and qualitative enhancement of education and scientific communication; in order to really share the “good” of science, as much as possible. A second reflection should be addressed to the intrinsic link between education/scientific communication and education/bioethical communication: from the very start of the educational *iter* the educating to a scientific mind and communication, in the best way, of the new possibilities opened up by scientific knowledge are not the only requirements. What is also required is formation of the ability of orientation as regards the choices offered by these possibilities, and communication of the bioethical questions examined by science, regardless of sensationalism and ideological pressures.

Commitment to the two strictly connected reflections on *bioethical education* and *bioethical communication* derives from the ethically public nature of bioethics, intent on watching over science as a public good. This commitment not only affects, in a relatively new way, the deontological professional training of some experts (think of doctors, all health workers, biologists, biotechnologists), but also involves in an all-embracing manner education to “active and responsible citizenship”. The education of the citizen should include a specific area dedicated to *scientific citizenship* – which focuses on awareness of the value of science as a “good”, the importance of its protection and actual promotion of this achievement – and an area dedicated to *bioethical citizenship*, understood as active and responsible participation regarding choices in the field of bioethics, starting with awareness of the new rights and duties in connection with scientific development.

In fact, the possibilities opened up by scientific and technological progress impose choices which, in a world which does not accept other political regimes apart from democracy, must be the result of free and informed debate between “all” those involved. The awareness of the new responsibilities towards human

and non-human life in the age of science and technology is also confronted with the problems of a society deeply marked by ethical pluralism. Similarly, the environmental dimension of bioethics, which also places before us certain evidence (the link between respect and care for non-human life and the protection of life and the quality of life of all human beings, as well as that of future generations), and inescapable responsibilities, is in fact, matter for interpretation, discussion and conflict as regards the manner and timing of responsible action. Several issues remain open: the link between individual and collective responsibility, the interaction of responsibilities between single states, the equitable sharing of responsibilities between developed and developing countries. Bioethics which moves in the specific context of health care is faced with the challenging comparison between the imperatives of traditional medical ethics and the expansion of the means and purposes of medicine: an expansion that has problematic reflections on the concept of life and health.

In the context of environmental bioethics as in the context of clinical bioethics, scientific data is not only a piece of data, but it is considered for the ethical problems it poses, for its being “for” or “against” man: an examination which takes place through discussion, the comparison of all those involved and which assumes that everyone has fundamental knowledge of scientific problems and basic formation in critical reflection on moral principles and values. Bioethics education is the synthesis of these two elements: a basic knowledge of the scientific problem and a basic education in ethical reflection.

## **2. Bioethics Education and International Organizations: statements of principle**

The importance of widespread education in bioethics to all States and at all levels is reiterated in the major official documents of UNESCO. Take among others, the *Universal Declaration on the Human Genome and Human Rights* (1997)<sup>1</sup>; the *International Declaration on Human Genetic Data* (2003)<sup>2</sup>; the *Universal Declaration on Bioethics and Human Rights* (2005).

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<sup>1</sup> Cf. in particular: Point F., *Promotion of the principles set out in the Declaration*, Article 20: “States should take appropriate measures to promote the principles set out in the Declaration, through education and relevant means, *inter alia* through the conduct of research and training in interdisciplinary fields and through the promotion of education in bioethics, at all levels, in particular for those responsible for science policies”; Point G, *Implementation of the Declaration*, Article 23: “States should take appropriate measures to promote, through education, training and information dissemination, respect for the above-mentioned principles and to foster their recognition and effective application. States should also encourage exchanges and networks among independent ethics committees, as they are established, to foster full collaboration”.

<sup>2</sup> Cf. Point F, *Promotion and implementation*, Article 23, *Implementation* (a): “States should take all appropriate measures, whether of a legislative, administrative or other character, to give effect to the principles set out in this Declaration, in accordance with the international law of human rights. Such measures should be supported by action in the sphere of education, training and public information”. (b): “In the framework of international cooperation, States should endeavour to enter into bilateral and multilateral agreements enabling developing countries to build up their capacity to participate in generating and sharing scientific knowledge concerning human genetic data and the related know-how”. Article 24, *Ethics education, training and information*: “In order to promote the principles set out in this Declaration, States should endeavour to foster all forms of ethics education and training at all levels as well as to encourage information and knowledge dissemination programmes about human genetic data. These measures should aim at specific audiences, in particular researchers and members of

In particular the *Universal Declaration on the Human Genome and Human Rights* affirms that, in order to implement and promote the principles established and gain a better understanding, especially among young people, of the ethical implications of scientific and technological developments, States should undertake to foster education and training in bioethics at all levels, and encourage the diffusion of information and knowledge programmes on bioethics (art. 23)<sup>3</sup>.

Since 2000, the International Bioethics Committee (IBC) of UNESCO has formally included among its goals to encourage in all member countries education in bioethics in an interdisciplinary perspective. The prospect identified by the Committee is that education in bioethics, apart from the specialized fields involved (doctors, researchers, health professionals, scientific, health and juridical policy makers, etc.), should be aimed at all citizens, in order to make bioethics a vital part of the general culture of tomorrow, a culture inspired by an ethic of freedom and responsibility.

In this regard, the recent ICB report on *Social Responsibility and Health*<sup>4</sup> stresses the link between level of education and health in general, referring to the importance of the aforementioned Article 23 of the *Universal Declaration on Bioethics and Human Rights* in relation to Article 14 (*Social responsibility and health*)<sup>5</sup> and stressing the crucial role attributed to the progress of science and technology in promoting health and social development. It highlights, among other things, that if this development is certainly related to the production, implementation and application of scientific and technological products, not less so to the possibility of increasing the awareness of researchers, policymakers and the public on the ethical implications of scientific progress and technology<sup>6</sup>.

But above all, the IBC, in the report of 2010, puts education among the four *Special areas of focus* together with *Health care, Research, Industry*. In this regard, see point 72<sup>7</sup> which calls specifically on the Governments of the

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ethics committees, or be addressed to the public at large. In this regard, States should encourage the participation of international and regional intergovernmental organizations and international, regional and national non-governmental organizations in this endeavour”.

<sup>3</sup> UNESCO, *Universal Declaration on Bioethics and Human Rights*, 19 October 2005, Article 23 – *Bioethics education, training and information*: “1. In order to promote the principles set out in this Declaration and to achieve a better understanding of the ethical implications of scientific and technological developments, in particular for young people, States should endeavour to foster bioethics education and training at all levels as well as to encourage information and knowledge dissemination programmes about bioethics. 2. States should encourage the participation of international and regional intergovernmental organizations and international, regional and national non governmental organizations in this endeavour”.

<sup>4</sup> UNESCO International Bioethics Committee, *Report on Social Responsibility and Health* (SHS/EST/CIB10-11/1), 2010.

<sup>5</sup> The text of article 14 reads as follows: “1. The promotion of health and social development for their people is a central purpose of governments that all sectors of society share. 2. Taking into account that the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition, progress in science and technology should advance: (a) access to quality health care and essential medicines, especially for the health of women and children, because health is essential to life itself and must be considered to be a social and human good; (b) access to adequate nutrition and water; (c) improvement of living conditions and the environment; (d) elimination of the marginalization and the exclusion of persons on the basis of any grounds; (e) reduction of poverty and illiteracy”.

<sup>6</sup> UNESCO International Bioethics Committee, *Report on Social Responsibility and Health* (SHS/EST/CIB10-11/1), 2010, p. 25, point 49.

<sup>7</sup> *Ibid*, p. 33, point 72.

Member States to provide citizens with tools for education in bioethics deemed indispensable for effective participation in public debate on the moral problems raised by scientific and technological progress, both nationally and internationally. Finally, the Report refers to the role of national ethics Committees set up also “to formulate recommendations and foster debate, education, and public awareness in bioethics”<sup>8</sup>.

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In Europe the Council of Europe – founded in 1949 with responsibilities in many ways parallel to those of UNESCO, including particularly, the promotion of a homogenous cultural development of Europe – has during the years started many cultural promotion programmes, giving particular attention to bioethics, at the time of the affirmation of biotechnology applied to medicine. In 1989 during the Symposium on Bioethics of the Council of Europe which took place in Strasbourg from December 5<sup>th</sup> to 7<sup>th</sup>, there was a presentation of a survey carried out through preordered questionnaires on “teaching, research and practice of bioethics”<sup>9</sup>.

The survey reveals a significant difference between the structures involved in the education of bioethics in the European context (university departments, research centres, medical associations, cultural foundations interested in social issues) and even among the recipients of bioethical training (doctors, theologians, biologists, lawyers, nurses, and, in a smaller number, social workers and journalists). During the Symposium, inter alia, a working group on the teaching of bioethics<sup>10</sup> was instituted. The foreword to the debate is a definition of bioethics itself: starting with the known and classic definition provided by Warren Reich in the first edition of *Encyclopedia of Bioethics*<sup>11</sup>, bioethics is perceived in its complexity, not as a discipline in itself, but as “a disciplinary subject”, a “rational analysis”, that is particularly complex, given the pluralistic context in which we live, and the ethical problems related to biomedicine. The levels of investigation in bioethics are identified as follows:

- a) the formulation of moral judgments on specific cases and situations;
- b) social reflection on ethically significant issues;
- c) the anthropological question regarding what generally constitutes a “good life”<sup>12</sup>.

The identification of these levels of inquiry connects with the delineation which the Report gives of the objectives of teaching bioethics:

- theoretical: knowledge of the principles and ethical theories called into question;
- practical: education to address ethical issues;
- subjective/personal: the promotion of moral sensitivity to moral duties;

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<sup>8</sup> Ibid p. 38, point 83.

<sup>9</sup> P. CATTORINI, *Teaching bioethics. A report by the Council of Europe*. in C. ROMANO – G. GRASSI (ed.), *Bioethics*, UTET, Torino 1995, p. 87. The survey, edited by S. Le Bris, is now in *Europe and Bioethics, Proceedings of the 1st Symposium of the Council of Europe on Bioethics*, Strasbourg 1990.

<sup>10</sup> The Rapporteur of the group Paolo Cattorini, Chairman Octavio Quintana (cf. P. CATTORINI, *Teaching bioethics*, cit.).

<sup>11</sup> W. T. REICH (ed.), *Encyclopedia of Bioethics*, The Free Press, New York 1978, Introduction, Vol. I, p. XIX.

<sup>12</sup> P. CATTORINI, *Teaching bioethics*, cit., p. 88

- social: the promotion of social dialogue and responsibility, indispensable to democracy.

Although the enquiry and the quoted *Report* both refer to a teaching of bioethics that is not intended for middle/high school students, but for university students, identification of the different levels of bioethical investigation and the objectives of teaching can be usefully drawn on in relation to a possible inclusion of bioethics in schools. Both these features indicate the distinctiveness of bioethics, its quality as applied ethics and at the same time, its public dimension and the related necessity to decline in particular a bioethical education verging between the theoretical and practical, and between the individual and social. Another concern also emerges from the Report, strongly overlapping the issue of education in bioethics: namely, the need to deal with pluralism, a comparison made all the more difficult the younger the age of those receiving education in bioethics. It is rightly pointed out that this problem is common in teaching in the Faculty of Philosophy and, it is said, regarding schools, to the teaching of Philosophy in high schools. The recommendation is “to avoid, a paternalistic attitude, in teaching”, and promote “the personal ethical education of each student, without however the teacher having to give up their own moral choices”<sup>13</sup>.

Also to be noted is the final recommendation, which today can still be used as an indication for those involved in education in bioethics: the intention to continue to collect, analyse and exchange experiences, *curricula*, and teaching methods between different European countries, ultimately leading to the development of guidelines<sup>14</sup>. Lastly, the complexity involved in formulation of a project for bioethics education, the specification of its relevant and feasible educational objectives, is to be noted<sup>15</sup>.

Continuing within the Council of Europe’s activities, it should be noted that the *Convention on Human Rights and Biomedicine*, signed in Oviedo in 1997, although it does not contain explicit references to the subject of bioethics education, already in the *Preamble* stresses the importance of promoting a public debate on bioethical issues. Chapter 10, article 28 is dedicated to this and states: “Parties to this Convention shall see to it that the fundamental questions raised by the developments of biology and medicine are the subject of appropriate public discussion in the light, in particular, of relevant medical, social, economic, ethical and legal implications, and that their possible application is made the subject of appropriate consultation”. The importance of education in bioethics seems here an implicit premise: in order that a public debate is “appropriate” all citizens shall have the right tools to participate in it. The need to pass from the implicit to the explicit is met within the European context in some documents promoted by the relevant Committees and Commissions.

We can mention the different opinions of the EGE (European Group on Ethics in Science and New Technologies to the European Commission), which highlights the need to promote education and dialogue programmes at European level to encourage citizen participation in decisions related to developments in science and technology. To this end, in recent years, the EGE has intensified its cooperation with national ethics committees in order to allow

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<sup>13</sup> *Ibid.* p. 90.

<sup>14</sup> *Ibid.*

<sup>15</sup> ITALIAN NATIONAL BIOETHICS COMMITTEE, *Bioethics and education in the health care system*, 7 September, 1991, p.18

in each country a debate on the various issues subjected to the attention of the Group. The intention is to give the European Commission an additional instrument with which to know the positions asserted in the various member countries in relation to certain issues. The promotion of bioethics education, in connection with the Ethics Committees of the various European countries, is specifically mentioned among the objectives and areas of action outlined by the EGE as central to the decade 2005-2015<sup>16</sup>.

The importance of a gradual spread of bioethics in the school curriculum was also reaffirmed by the Seventh Conference of National Ethics Committees (COMETH), held in Strasbourg in December 2003<sup>17</sup>. The Conference requested the Council of Europe to promote, inter alia, the exchange of information and didactic materials between national ethics committees.

### 3. Education in bioethics: the international state of the art

Various initiatives in the international arena derive from the awareness of the importance of bioethics education for the new generations. UNESCO has entrusted to the relevant committees (IBC and COMEST<sup>18</sup>) the task of defining the form and content of education in bioethics.

From this a number of actions aimed at promoting the dissemination of bioethics education programmes in the member States. In particular in 2003 COMEST published the Report *The Teaching of Ethics*,<sup>19</sup> the first recommendation encourages universities and other higher educational institutions to provide ethics courses at three levels (elementary courses for all students, advanced courses ; courses related to a PhD in ethics).

During the 32nd General Conference of UNESCO (2003), Member States have expressed the need to establish and promote ethics teaching programs with a special reference to scientific and professional training. Following this recommendation, UNESCO inaugurated in 2004, *the Ethics Education Programme* (EEP), defined an 'Ethics infrastructure' along with the Global Ethics Observatory (GEObs) and Assisting Bioethics Committees (ABC). The program is divided into stages (collection of experts in ethics, examples of educational programs; advisory panel ethical core *curriculum*, educational resources) and its main objective being to strengthen and increase the capacity of member States in the field of 'ethical education'<sup>20</sup>. For the biennium 2004-2005, efforts were concentrated mainly in eastern and central Europe. In 2006-2007, priority was given to south-eastern Europe and the Gulf Region.

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<sup>16</sup> C.f. *General Report 2000 – 2005 on the Activities of the European Group on Ethics in Science and New Technologies to the European Commission* ( EGE), March 2005, p. 65.

<sup>17</sup> Cf. [http://www.coe.int/t/dg3/healthbioethic/cometh/7th\\_conference\\_en.asp](http://www.coe.int/t/dg3/healthbioethic/cometh/7th_conference_en.asp): 7th Conference "New ethical challenges: Bioethics education and Biobanks", Strasbourg, France, 1-2 December 2003.

<sup>18</sup> The World Commission on the Ethics of Scientific Knowledge and Technology, created in 1998, is an advisory body composed of 18 independent experts. Its task is to deepen the ethical implications of scientific and technological development and to formulate opinions for the benefit of policy makers.

<sup>19</sup> The World Commission on the Ethics of Scientific Knowledge and Technology (COMEST), SHS-2004/WS/08, Report of the working group on *The Teaching of Ethics*, Paris, 26<sup>th</sup> January 2003, Oslo, 10<sup>th</sup>-12<sup>th</sup> May 2003, p.15.

<sup>20</sup> Cf. Division of Ethics of Science and Technology UNESCO, *Ethics Education Program*, 2007.

In December 2007, the International NGO Conference, held at the initiative of UNESCO Bioethics Subcommittee, in accordance with the provisions of Article 23 of the *Universal Declaration on Bioethics and Human Rights* has dismissed a report, *Éducation à la bioéthique*<sup>21</sup>, in which it emphasizes the need for bioethics education accessible to all citizens. The document outlines the “sense” with which to understand education in bioethics. First and foremost the goal is not to transmit a series of `rules`, but to teach a method for active participation in a public debate on issues of science and technology with important ethical and social implications. Hence the distinction between *the teaching of bioethics* and *education in bioethics*: the first is a stage of the second. If it is important to monitor and analyse the different experiences that have already been implemented in the teaching of bioethics (taking into consideration where they are carried out, whether and how a response is given, the underlying questions, who is the promoter and whether or not they are valid), the Report is inclined towards an education in bioethics involving multidisciplinary expertise (life sciences, social sciences and humanities, philosophy, law, semiotics, theology), which is configured as an opportunity to lay the foundations for a cross culture, capable of reaching a wide audience, with different beliefs, converging, however, to defend the dignity of ' man as an end to respect and promote. This education is designed not only as a practical study, but also as an instrument of peace.

What emerges is the “social” nature of education in bioethics, which cannot remain the patrimony only of scientists, but must involve the whole of civil society, since it calls into question the hopes, beliefs, experiences and above all everyone’s questions relating to the human being. To the extent that bioethics creates an area of open and pluralistic confrontation in civil society, an area in which different cultures, convictions and beliefs can be expressed and debated, education in bioethics is seen as an instrument to promote and enhance peaceful coexistence initiating the young to the rules of dialogue.

It is to be noted that the cited Report of 2007 connects this idea to the need to establish a definition of bioethics that highlights not only its field of application, the theoretical and practical moral issues raised by science, but also the two fundamental characteristics of interdisciplinarity and pluralism. Reference to the definition formulated in 2004 by the CIB<sup>22</sup>, is not unrelated. It is not superfluous, in fact, to recall what seems clear: behind every bioethics education there is a precise idea of bioethics: an idea which may take on, after several years from the emergence of the discipline, different and also contrasting aspects, returning to different ways of considering education in bioethics. UNESCO undertakes as one of its tasks the promotion in each country of education in bioethics in a multidisciplinary perspective, as an essential component of the general culture of tomorrow, a culture that promotes an ethic of freedom and responsibility<sup>23</sup>. The basic conviction is that the introduction of education in bioethics in schools can be an opportunity to help young people to respond to the essential questions of the contemporary world,

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<sup>21</sup> Cf. Comité de Liaison ONG-UNESCO, Commission programmatique mixte Science et éthique, *Éducation à la bioéthique*, Paris, December 2007.

<sup>22</sup> “(la bioéthique est)...un champ d’étude systématique, pluraliste et interdisciplinaire qui aborde les questions morales, théoriques et pratiques, que posent la médecine et les sciences de la vie appliquées aux êtres humains et au rapport de l’humanité à la biosphère” (ibid. p. 8).

<sup>23</sup> Cf. Comité de Liaison ONG-UNESCO, Commission programmatique mixte Science et éthique, *Éducation à la bioéthique*, p. 15.

promoting a new humanism. Linked to the exercise of critical thinking, the habit of listening and dialogue, education in bioethics arises in the wake of philosophy and that particular area of philosophical knowledge which is ethics, connecting to citizenship education. “The pupil must be made aware of the elements of the problem as well as the possible solutions and possible derivatives, and encouraged to reflect and to discuss”<sup>24</sup>.

All this implies, in terms of content, avoiding the risk of spreading, through the teaching of bioethics, State morals. Nevertheless, the background of values is not excluded, since the stakes are identified as a humanistic vision of sciences and technology: not only a theoretical vision but conjugated to a practice of democracy and solidarity, which focuses on the human person. For example in *Éducation à la bioéthique* some issues are listed: respect for the human body, experimentation, organ donation and transplantation; beginning and end of life, neuroscience, genetics, animal and plant biotechnology, environment and sustainable development. It is possible to identify in the 2007 UNESCO Report, a track on some fundamental questions that are still open, regarding education in bioethics:

- *when to start?*: it welcomes the decision to start education in bioethics at secondary school level, given the level of maturity already achieved by the learners, although it is stressed that the success of a programme on education in bioethics is based largely on the consistency of the education system as a whole, starting from elementary education<sup>25</sup>;

- *who should be educated?*: It stresses the need for adequate training of teachers and school heads through the acquisition of new experiences and new teaching methods;

- *how should education in bioethics be inserted into the school curricula?*: education in bioethics is conceived within the disciplines already provided, not considering it necessary to make a specific discipline;

- *what is the purpose of education in bioethics?*: not only the ethical problems raised by science, but also a view of nature and of other species that is more extensive and less anthropocentric;

- *what is already implemented in the context of education in bioethics?*: although bioethics is not listed officially as such in the school curriculum, students in secondary school for some years have approached bioethical issues through optional activities, in which the interest of the students is largely in line with the willingness of their teachers<sup>26</sup>;

- *what does “education in bioethics” mean?*: the essence of education in bioethics is the shift from “finding” to “discernment”, to be precise, it does not consider the product of science as an end in itself, but confronts it with the interest of ethics. “Educating to bioethics, is thus, ultimately, to create a dialogue between the scientist who searches, finds and verifies, and the moralist who challenges, calls into question and takes a stand”<sup>27</sup>.

The last point comes back to the distinction between the *teaching of bioethics* and an *education in bioethics*: while teaching indicates the transmission of already established knowledge, education in bioethics indicates a dynamism that is open, a search set in motion by scientific fact that unites with the field of values and their transmission. The most delicate problem of

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<sup>24</sup> *Ibid* p. 17.

<sup>25</sup> *Ibid* p. 25.

<sup>26</sup> *Ibid* p. 21.

<sup>27</sup> *Ibid* p. 31.

education in bioethics, the open question that we learn from reading the *Éducation à la bioéthique* is: *what are the underlying values of education in bioethics?* The text insists on the values of dignity, integrity, accountability, equality, justice, equity, solidarity and cultural diversity. Clarification of these values, however, requires a preliminary understanding of who man is. Another question emerges from education in bioethics: the question of values, or which ethic for bioethics, it refers back to the anthropological question. *Which anthropology for education in bioethics?*

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Leaving the question open for the moment and moving on to the application level, the search for appropriate methods and tools for an education in bioethics, we note that the Council of Europe, on the initiative of the Division of Bioethics, following the directions of the Seventh Conference of National Ethics Committees (COMETH), cited above, has developed a real learning module (*Educational Tool on Bioethical Issues*)<sup>28</sup>, in order to help start a public debate on bioethical issues among students of higher education.

The initiative of the Council of Europe is a response to one of the basic problems of education in bioethics: the need for innovative teaching tools, able to promote a participatory approach. Reviewed by professors of philosophy, biology and civics education, the *Educational Tool* is intended for young people over the age of fifteen, whatever the type and level of education, and has as its purpose: to encourage active participation in the debate, raise awareness in young people on issues of bioethics, through an open discussion that takes into account the different positions; encourage the formation of an autonomous capacity of evaluation; promote active participation in public debate on social issues, through the analysis of some specific cases, within the general framework of citizenship education; provide visibility and dissemination of the European dimension of reflection on bioethics; clarify the meaning of some key concepts of science and medicine, using examples from everyday life.

The *Educational Tool* is not just a teaching tool: the organization of the various modules, dedicated to certain issues in bioethics (organ donation, genetic testing, assisted reproductive technology, biomedical research on human beings, cloning) real guidelines can be drawn on how to understand and set up education in bioethics. First and foremost, articulation of the files (setting the theme of the scientific and bioethical problems connected to it, the historical framework of reference of the current issue, scientific data, principles of ethics, some specific cases, in-depth bibliography, glossary), aims at facilitating a clear understanding of the problem, but also to encourage open debate, stimulating questions without preconceived answers.

The ethical principles set forth from time to time, following the 1997 *Oviedo Convention*, direct to the principle that asserts the protection of the dignity and identity of human beings<sup>29</sup>. From this principle, always invoked first in all matters, derives the obligation to give precedence to the interests and welfare of human beings over the mere interest of society or science<sup>30</sup>, the

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<sup>28</sup> [http://www.coe.int/t/dg3/healthbioethic/texts\\_and\\_documents/publications/default\\_en.asp](http://www.coe.int/t/dg3/healthbioethic/texts_and_documents/publications/default_en.asp).

<sup>29</sup> Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine (Convention on Human Rights and Biomedicine), signed in Oviedo on 4 April 1997. Art.1.

<sup>30</sup> *Ibid* art. 2.

requirement of informed consent<sup>31</sup>, as well as the ban on the sale of human body parts<sup>32</sup>, the prohibition of discrimination on grounds of genetic heritage<sup>33</sup> and the reproductive cloning of human beings<sup>34</sup>. Just as in the *Oviedo Convention*, which is the regulatory framework throughout the *Educational Tool*, other fundamental questions are left open, especially the highly controversial status of the embryo and its protection. The openness of the question however does not mean that the problem has not been raised: on the contrary, the different ethical positions are indicated, albeit briefly, as well as the various solutions adopted by European countries in terms of regulations (for example on in vitro fertilization).

#### **4. The experience of the last ten years: the different practices of education in bioethics in the international arena**

The view of the initiatives tried out at international level is extremely varied. In particular, in Europe, yet few countries have responded promptly to the initiative of the Council of Europe aimed, as we have seen, to promote the dissemination of homogeneous didactic tools in member countries. Currently the *Educational Tool on Bioethical Issues* is adopted in Austria, France and Germany.

However, it is possible to find some common trends in various countries (European and non-European) engaged in fostering the progressive entry of education in bioethics in schools.

Firstly it must be said that the most important learning experiences are directed to the students involved in higher education (especially high schools and institutes for scientific training). In addition, it can be stated that only in few cases, including France<sup>35</sup> and Holland<sup>36</sup>, bioethics has entered the school

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<sup>31</sup> *Ibid* art. 5.

<sup>32</sup> *Ibid* art. 21.

<sup>33</sup> *Ibid* art. 11.

<sup>34</sup> Article 1 of the Additional Protocol to the Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine, on the Prohibition of Cloning Human Beings, Paris, 1998.

<sup>35</sup> In France, the bioethics does not appear as such in the programmes of secondary education. However, for some years, pupils can address important bioethical issues in different stages of their education: at the first class level, a subject of bioethics is included in the end of year exams; in the last year (final class) in the philosophy course; in the school curriculum (projet d'établissement); in a didactic laboratory;- in the *Travaux personnels Encadrés (TPE)*, precisely research projects carried out by Groups of a minimum of 2 to a maximum of 4 students; in civic education. The INRP (Institut National de la Recherche Pédagogique) provides materials for self-training of teachers on various topics including "life sciences" that include a dossier on assisted reproduction and cloning ([http://www.inrp.fr / Acces / biotic / procreative / accueil.htm](http://www.inrp.fr/Acces/biotic/procreative/accueil.htm)). Moreover, as noted above, France has adopted the Council of Europe *Educational Tool* for the teaching of bioethics in high schools. Three of the five themes contained in the European learning module (medically assisted procreation, organ donation, genetic tests) are published on the website of the General Assembly of bioethics (<http://www.etatsgenerauxdelabioethique.fr>). For the first time the new programmes for the College announced in August 2009 by the Minister of National Education, Luc Chatel, officially include the issues of sustainable development, bioethics and globalization (<http://www.education.gouv.fr/cid48749/rentree-scolaire-2009.html>). The discipline within which the new modules will be included is called "Life Sciences and Earth Sciences" (See *Programmes de l'enseignement de sciences de la vie et de la Terre*, "Bulletin officiel" spécial n ° 6 du 28 août 2008). To be treated within that discipline for the years 2008/2009 and 2009/2010 the foreseen topics to choose from are medically assisted procreation, man's place

system in a fairly structured way thanks to close cooperation between national ethics committees and the corresponding Ministries of Education. Also in these cases, however, education in bioethics is not a separate discipline, but it takes its place alongside existing disciplines (both humanistic and scientific), complementing the programme.

The most prevalent approach, however, remains the one that focuses on the provision of virtual learning spaces as a privileged means for the dissemination of education in bioethics programmes: web portals with a high degree of interactivity, usually designed for teachers, but also accessible directly to students, where all kinds of educational material, constantly updated, can be viewed and downloaded. These sites always offer, along with content resource, also help and a methodological guide for the setting up of the lesson.

As an example we can cite the experience of the Kennedy Institute of Ethics at Georgetown University (Washington DC) where the High School Bioethics Curriculum Project integrates the teaching of traditional models based on training workshops for teachers, and the most modern computer tools<sup>37</sup>. The stated purpose of the Project is "to show children that there are different and often conflicting points of view and that sometimes people have the right to disagree. The sooner students learn that there are problems for which there is no single solution, the sooner they will be ready to become responsible citizens"<sup>38</sup>.

Worthy of quote is the experience sponsored by the National Ethics Committee of the Nordic countries (Denmark, Sweden, Norway, Finland, Iceland) engaged since 2001 in a systematic way on the subject of the teaching

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in evolution, from genotype to phenotype; biotechnological applications (<http://educol.education.fr/cid45770/programmes-en-vigueur.html>).

<sup>36</sup> Bioethics in Holland is among the objectives of a teaching curriculum mandatory for all. In secondary education (high schools, professional schools, etc..) the course "maatschappijleer" is provided (<http://www.maatschappijleer.nl/>), which can be translated as "social sciences" for all pupils. The course takes place during the 2nd and 3rd year of high school or professional-technical school for 2 hours per week. In terms of teaching, general guidelines have been established for the programmes of "social sciences" that are valid for any type of secondary school. Within this framework, the teacher is relatively free to propose topics for discussion and methods in agreement with the students. The course program can be adapted according to the needs and characteristics of the individual school. An element always present is the treatment of ethical issues.

<sup>37</sup> <http://bioethics.georgetown.edu/>. In the USA education in bioethics has been present at the higher levels of education since the 1990's: school, university. The High School Bioethics Curriculum Project is a program for the teaching of bioethics in secondary schools with particular reference to science courses. Among the topics covered are the quality of life, human dignity, cultural differences, the cost of care, procreation, organ transplantation, human experimentation, eugenics. The programme requires that teachers regularly meet in 'workshops' where they are given the material for use in class and provided with guidance on detailed texts, films and audiovisual material in general. The Kennedy Institute of Ethics has also produced a handbook of bioethics, and also publishes the work of the workshops and ensures its updating. In some high schools bioethics courses separate from the standard program have begun. In this case, ad hoc websites with educational materials and discussion forums have been created. In addition interested teachers have at their disposal a National Reference Center for publications, materials and all kinds of information. The method adopted is based on the presentation of special cases. Then there is the proposal of a set of useful questions pertinent to the argument that teachers can use in class. The workshops are for teachers of various disciplines: biology, philosophy, religion, health, mathematics, chemistry, law, social sciences, American history and civic education, history and ethics. Participants in these programs are followed throughout the school year and Internet databases are constantly updated and available.

<sup>38</sup> Cf. High School Bioethics Curriculum Project (<http://bioethics.georgetown.edu/>).

of bioethics. On 27 May 2008, the Committee (NCBI) organized a *workshop* in Oslo on *Teaching Material in Bioethics*. The objective was to select good quality teaching tools already available in one or more Scandinavian languages: tools which were successively translated into all Nordic languages. In 2008 a Working Group was also established that published a *Report*<sup>39</sup> which proposes the construction of an interactive website totally dedicated to teaching materials for the teaching of bioethics available in all languages of the Nordic countries. The intent is to assert a broad conception of Bioethics encompassing not only the moral problems that arise from the development of biotechnology, but also the traditional issues of medical ethics. The target audience is teachers, students and, more generally, the public. The Working Group does, however, envisage the typical user of the site as the teacher. Students could use the website themselves, but it is preferable that they are guided by the teacher towards certain didactic materials. The *Report* states that the teaching of bioethics is important because the ethical discussions are an important element for the training of young citizens in democratic societies. It also stresses that the non-inclusion of bioethics in the school *curricula* would be to assume that the younger generation should learn to argue and express an opinion on the ethical problems elsewhere, that presumption is defined as a major risk.

As a final example of good practice it is possible to quote the BEEP Programme (BioEthics Education Project)<sup>40</sup> which has already been active for some years in the United Kingdom. The heart of the Project is an interactive website, designed as a virtual learning space for teachers of high schools and scientific institutions and their students. It is a learning resource developed to explore the moral, ethical, social, economic and environmental implications of technology and the applications of biology.

BEEP has the aim to provide students with updated and balanced information to develop their capacity for argumentation in debates and discussions on ethical issues raised by science to help them develop an independent ability to judge and to make personal ethical evaluations. At the same time, promoters<sup>41</sup> aim to increase the skills of teachers of scientific disciplines as regards complex and controversial ethical issues.

The site contains useful downloadable teaching materials for teachers to set up a lesson on various important bioethical issues (genetics, human reproduction, biotechnology, health, environmental ethics, animal ethics, etc.). Students and teachers can also participate in *forums* and *online* discussions. In addition, there is a glossary in which each entry shows the main ethical questions related to it, using presentation of specific cases.

From this brief analysis of already operational experiences there is clear confirmation of some theoretical trends that have emerged in the documents of international organizations, such as: the link between education in bioethics and citizenship education; the need to link education in bioethics to the ability of critical judgement, argumentation, and active participation in discussion in a pluralistic ethical context. There are some clear indications on teaching methodology, which had already emerged, especially in the *Education Tool*,

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<sup>39</sup> *A Nordic Initiative in Bioethical Educational Resources*, Report from a working group on educational resources in bioethics". Lysebu, Oslo, 2008 11 04.

<sup>40</sup> <http://www.beep.ac.uk/content/130.0.html>.

<sup>41</sup> The official sponsors include the University of Bristol and the Society of Biology. Cf. <http://www.societyofbiology.org/home>.

namely, the need to find innovative methods and tools, able to stimulate interest and promote a participatory approach. This research leads in many countries to the transmission online of didactic materials and the promoting of participation in the bioethical debate in the form of participation in *forums* and *online* discussions.

## **5. Bioethics and education in Italy: the Opinion of the Italian National Bioethics Committee in 1991**

In our country the National Bioethics Committee dedicates in the early years an Opinion to the relationship between bioethics and education, limiting it to the context of health professions: *Bioethics and education in the health care system* (1991). Already in this opinion, the NBC notes that “in the context of the culture of health education, appropriate decisions should be taken for early bioethics training, as early as during the school years which precede the preparation for health professions”<sup>42</sup>.

Focusing on “health care”, by framing it however within the broader context of caring for the environment, the NBC highlights the public dimension of the issue, stressing that the essential task of a democratic society is the bioethical education of *each* citizen: “The issue of health training is (...) very broad, extending to other areas, politics, justice, administration, work, all the agencies of socialization, school to a great extent. It should be of interest to all schools, universities, etc., which prepare in various ways for professions involved with the protection of health, not only purely medical. It should also be stated that a culture of health education in the broader context of ecological culture, is required for the entire population: as such it is a social obligation, and should be initiated early, before the age of career choices”<sup>43</sup>.

Awareness of the importance of a commitment by the whole of civil society, and especially by the Committee itself, to bioethical education of the new generations clearly emerges already in the 1991 opinion: an education which is an essential step in the preparation of the future citizen for bioethical choices<sup>44</sup>.

Despite focusing in a specific area, the 1991 opinion is a significant starting point for thinking about bioethics education in a broad sense, as it already contains “the cornerstones” highlighting the strong correlation between “the ability to know”, “the ability to do”, and “the ability to be”: the role of disciplines defined as *humanities*, due also to the choices which pertain to the area of life sciences and health care; the importance of bioethics education during school years for preparation of the citizen for public debate; the predisposition towards a national education project that makes use of the competency of the NBC<sup>45</sup>.

Among these elements what appears particularly significant from the theoretical point of view is the triple nexus between “the ability to know”, “the

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<sup>42</sup> ITALIAN NATIONAL BIOETHICS COMMITTEE, *Bioethics and education in the healthcare system*, p. 8.

<sup>43</sup> *Ibid* p. 9.

<sup>44</sup> “It is hoped(...) for the contribution that bioethics can make to the preparation of the citizen to public debate on these issues, that it finds space in an appropriate form also at upper high school level” (*ibid* p.24).

<sup>45</sup> L. BORGIA, *Bioethics in schools*, in the ITALIAN NATIONAL BIOETHICS COMMITTEE, *The National Bioethics Committee 1990-2005. Fifteen years of commitment*, Rome 2005, p. 109.

ability to do”, and “the ability to be” which can be applied beyond the scope of the health professions within the broader problem of an education in bioethics.

## **6. Initiatives to promote education in bioethics in Italy: the 1999 and 2010 MIUR-NBC Memoranda of Understanding**

The need for a proper formation in bioethics as an essential part of educating the new generations to active and responsible citizenship gave rise in 1999 in Italy to a *Memorandum of Understanding between the Ministry of Education and the National Bioethics Committee*<sup>46</sup>. In the *Memorandum* in the protocol the two parties undertake to "develop joint initiatives for schools aimed at knowledge of the problems arising from the progress of science in relation to human life and other species and the use of biotechnology, and the acquisition of knowledge of the legal implications related to this social and moral progress." "Knowledge" and "awareness": these two keywords mark a commitment to education in bioethics, which because of its significance; can only take place in schools. There was and still is the need to offer young people something more and something better than the current *communication of bioethics* by the *mass media*.

In the *Memorandum of Understanding* the areas of intervention in which to implement a proper bioethics education are identified and in particular: didactic research on how to approach bioethical issues, introduction of bioethical issues in the relevant disciplines, the training of school staff of and at all levels, production of materials for distance education of teachers, and development of teaching materials for use in class.

In view of the commitments made by both parties, unfortunately the *Memorandum of Understanding* has not given rise to the proposed initiatives. Among the hypotheses put forward to describe the reason for the lack of implementation of such initiatives, is the theory that sustains the difficulty to design “one” bioethics education in response to the presence of strong tensions between the different paradigms in bioethics, inspired by different ethical and anthropological perspectives. The project of bioethics education in schools seems to have stalled not for the *lack* of motivation – the inability to reply to the question as to “why” to educate in bioethics - but because of the difficulty to converge on “how” to educate and especially “which” bioethics should constitute the educational model<sup>47</sup>.

Alongside this hypothesis of comparison-clash between different bioethics, another hypothesis explains the block in the implementation of the *Memorandum* with the historical contingency, that is, the period which the Italian school system is going through, described as a major time of reform to the system, still unfinished<sup>48</sup>.

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<sup>46</sup> See Appendix 1.

<sup>47</sup> Cf. D. NERI, *L'etica e la filosofia nei processi formativi della nuova scuola secondaria* e G. DEIANA, *La cultura etica. Ipotesi progettuali ed esperienze realizzate*, in *Bioetica ed etica pubblica. Una proposta per l'insegnamento*, (ed) Giuseppe Deiana and Emilio D'Orazio, Edizioni Unicopli, Milan 2001.

<sup>48</sup> The year of the signing of the *Memorandum*, 1999, is also the year of enactment of the Presidential Decree 275, comprising the regulation on school autonomy, as well as being the date of commencement of the work of the Ministerial Committee for the Reorganization of school cycles.

In fact, the two theses do not exclude each other: the difficulty of finding an agreement on “which bioethics” to teach is evident, as is clear that the project for collaboration between MIUR and NBC for bioethics education on schools comes at a time of protracted transformation of the Italian school system. All this has generated difficulty in carrying forward a well-defined project, as the reference context is indefinite and ever changing.

Today, not long after implementation of the Gelmini school reform, the situation seems to have been unblocked. In July 2010 there was the signing of a new *Memorandum of Understanding* between MIUR and NBC<sup>49</sup>, with which the two parties “undertake to pursue joint initiatives in order to make education in bioethics an integral part of school education, so as to ensure that new generations have an equal opportunity to participate in public debate on ethical, social and juridical problems posed by scientific and technological progress” (art..1).

Some years after the first *Memorandum*, it can be noted how the same intention assumes different shades, such as the reference in line with the development of bioethics, to participation in public debate. Even as regards areas of intervention, it is possible to notice a common ground and some differences. The areas indicated in 1999 have all been taken up again with greater and more specific articulation. To be noted: as regards the most appropriate teaching methods, the intent to start from theoretical investigation and from examples of “best practices”; for inclusion in the various *curricula*, the indication of a non-exclusive relationship with the teaching of “Citizenship and Constitution<sup>50</sup>”; on teacher training, the reference to programmes of “formation and refresher training” to be held at universities or MIUR accredited institutions; as regards the didactic material, the provision of *online* material, websites and *web forums*. However, two differences are most evident: insertion, at the first point of an intervention not provided for, in the first *Memorandum*, namely a survey through questionnaires directed at school principals and teachers at the secondary school level, “the current status of teaching on bioethical issues in schools”, the intent of teaching aids, both for teachers and for learners to “take account of the documents of the NBC.

The *Memorandum* of 2010 contains years of experience, the need to update due to the era, and also to the hope that the inclusion of education in bioethics in schools can overcome the difficulties and fragmented forms so far adopted, and join in the footsteps of the school Reform.

## **7. The difficult penetration of education in bioethics in our school system: amid social education and other educations**

In the dynamic context of the Italian school system in recent years, characterized by tension towards the new, but also by uncertainty, the instance of a *social education* which has taken the form of a variety of “educations”: health, environment, law, human rights, affection etc. The different instances of social education find accomplishment in citizenship education that is promoted today by the provided inclusion of education in *Citizenship and Constitution*.

Education in bioethics appears to be, in some way, inherent in different forms of social education, starting from the first, in chronological order, health

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<sup>49</sup> See Appendix 2.

<sup>50</sup> For the teaching of Citizenship and the Constitution see next paragraph 7.

education<sup>51</sup>. The 1979 new middle school programs reserve a specific space to *health education*, the contents of which are integrated within the teaching of natural sciences, however it did not provide a specific quantity of "total hours". Hence the renaming of natural and physical mathematical sciences in "education in maths, science and health", despite the clarification of the need to weave a close relationship - as regards health education – with the teachers of all the other disciplines. In the 80's health education begins to appear as such (with this name) in the juridical sources, which in turn make it an unavoidable condition to counter situations of distress and school abandonment. In the CM 78/83 we read for example that health education "should permeate all educational work in school in awareness of the close relationship between physical, mental and social health and the processes of learning." Health education also includes all the activities of "information on the damage caused by alcohol, smoking, use of narcotic or psychotropic substances, as well as from the related diseases"<sup>52</sup>. Especially in the 90's many of the teacher training initiatives (and also some interventions aimed at the children) have found a place in the context of bioethics - from a regulatory standpoint - in the context of health education.

It is clear that there are also many links between bioethics and other "educations", such as human rights education, with particular reference to reflection on the "new rights", or environmental education. As regards the latter a significant step forward is represented by the *Charter of Intent* between the Ministry of Education, University and Research and the Ministry for the Environment, and the Protection of Land and Sea, on the subject of "School, Environment and Law", signed July 29, 2009. This Charter, taking "environmental education within the teaching of *Citizenship and Constitution*," commits the two Ministries, in accordance with specific skills, to incorporate in the educational proposal "the themes of environmental education and sustainability" and to "implement in kindergarten, primary school, and state and private first grade secondary school, teaching practices on issues of sustainable development and environmental education".

The word "bioethics" is however absent in the Charter, so that education in protection of the environment constitutes almost an "unrelated" subject to bioethics and can be carried forward "without" an education in examination of connected ethical issues and reflection, according to the different degrees of maturity of the pupils, on related ethical principles. It is however clear that protection of the environment comes about through the responsible use of scientific and technological progress; this is one of the priority objectives of bioethics, from its beginning. One needs only to recall the first model of bioethics outlined by Van Potter in 1971 in *Bioethics: Bridge to the future*<sup>53</sup> and

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<sup>51</sup> "The cause of the sporadic presence of health education in schools, in explicit terms, is given by the spread – among young people- of the use of drugs, so that the first law regulating the use of drugs, Law no. 685/75, contained some articles specifically devoted to the work of schools, seen especially in terms of health education and information on the damage resulting from use of these substances " A. PORCARELLI, *L'insegnamento della bioetica nel quadro dell'educazione alla convivenza civile: genesi e prospettive*, in Id. *Bioetica e convivenza civile i risultati di una ricerca*, IRRE – Emilia Romagna, Bologna 2004, p. 38).

<sup>52</sup> DPR 309/90, art. 326.

<sup>53</sup> V.R.POTTER, *Bioethics.Bridge to the Future* (1971), tr.it. R. RICCIARDI: *Bioetica: Ponte verso il futuro*, Introduzioni M.GENSABELLA FURNARI e G. RUSSO, Sicania, Messina 2000.

the thesis developed by Hans Jonas in the text *The Responsibility Principle*, in 1979<sup>54</sup>.

Contrary to what appears in the mass media debate, in which bioethics is reductively identified with the great issues of clinical bioethics (from in vitro fertilization to euthanasia, from genetic engineering to the use of stem cells, and the living will), bioethics is, according to the aforementioned definition of Warren Reich in the first edition of *Encyclopedia of Bioethics* (1978), the "systematic study of human conduct" not only in the field of science in health care, but also in the broader context of "life sciences". Defined in an even wider sense in the 1995 edition, as "the systematic study of the moral dimensions - including moral vision, decisions, conduct, and policies - life and health sciences, through a variety of ethical methodologies in an interdisciplinary way"<sup>55</sup> bioethics comprises the important and significant dimension environmental bioethics and animal bioethics: two distinct yet closely related dimensions, often identified with bioethics *tout court*, that is, the dimension of clinical bioethics addressed to ethical issues connected with human health care.

The close connection between health and environmental protection is, among other things, forcefully reiterated in the UNESCO Declaration on *Bioethics and Human Rights* (2005). The inclusion of environmental education may therefore be a first step the hoped for inclusion of continuous education in bioethics in schools. The NBC had, in fact, already recommended, in the Opinion on *Bioethics and Environment* 1995, the introduction in schools of "an environmental education programme" in order "to entrench in the new generations ecological values as part of professional education, to safeguard the common good and the rights of individuals"<sup>56</sup>.

To pass to citizenship education we can see that its roots date back to the entrance of *civic education* in schools, intending it to be a projection "towards social, juridical and political life, namely towards the principles that govern the community and its existing forms".<sup>57</sup> A subsequent attempt to revive this request is the Ministerial Decree 58/1996 which foreshadowed a more robust framework for the subject that was named *Civic education and Constitutional culture*. It was an interesting hypothesis, the potential effectiveness of which was not assessed, as it never entered into force.

There was a significant conceptual evolution in the problem of the relationship between school and life with the Law 53/2003 and its implementing decrees, which starts out from the thesis that all teachings should be geared to ensuring that "disciplinary and interdisciplinary knowledge (*knowledge*) and operational skills (*doing*) learned and practiced in the formal system (school), non-formal system (other educational institutions) and informal system (social life as a whole) have become personal skills of each individual"<sup>58</sup>. This is the goal of the *Educational cultural and professional profile of the student* (PECUP), expected at the end of each cycle of the educational system of Education and Training. In this context one should also consider the attempt to

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<sup>54</sup> H. JONAS, *Il principio responsabilità*, tr.it. P.P. PORTINARO, Einaudi, Torino 1993.

<sup>55</sup> W.T. REICH, (ed.), *Encyclopedia of Bioethics*, Macmillan Library Reference USA, New York 1995, 2° ed. vol. I, *Introduction*, p. XXI.

<sup>56</sup> ITALIAN NATIONAL BIOETHICS COMMITTEE, *Bioethics and environment* Opinion approved in the plenary session on 22nd September 1995, p. 9 (<http://www.governo.it/bioetica/pdf/19.pdf>).

<sup>57</sup> DPR 585 13th June 1958.

<sup>58</sup> D. L.vo 59/2004, all. D; *Educational, cultural and professional profile of the student*.

make sense of all the various educational requests, now numerous, making them converge in *Civil Society Education*. Even in this case the general regulations arise from very solid pedagogical requests focusing on cross-disciplinary thematic content of the six "educations" (citizenship, road, environmental, health, food and affection) that find their point of connection in educational intentionality made explicit by the reference to the above *Profile*. *Civil Society Education* has stimulated interesting forms of projects, often linking with some specific requests (such as those relating to road education<sup>59</sup>) on which initiatives have been built<sup>60</sup> between schools and organizations working in the area.

In the XV legislature (2006-2008) a review of *National Guidelines* began, with the enactment of the *Guidelines for the Curriculum*<sup>61</sup>, which on the one hand contained many aspirations as regards the social and civic education of young people, sometimes driven by extemporaneous suggestions from media discussion, but on the other hand it eliminated civil society education, and above all, it eliminated the PECUP, with some parts being in fact "dissolved" in a plurality of "goals for the development of skills", all expressed in terms of disciplines.

With the start of the current legislature, a decree later converted into law<sup>62</sup> has introduced a new discipline called *Citizenship and Constitution*, with its own time slot and self-evaluation. With the Policy Document issued by the MIUR on 4 March 2009 learning goals and task situations for the certification of skills related to *Citizenship and Constitution* were given, this teaching began on an experimental basis during the school year 2009 / 2010.

The decrees<sup>63</sup> which have accomplished the reorganization of the first and second cycle, in fact, do not envisage the discipline with a time and self-evaluation, but specific reference is made, stating that within the framework of teaching of the most relevant disciplines (history, law etc.) the knowledge and skills related to *Citizenship and Constitution*<sup>64</sup> must be acquired.

These uncertainties also fall on the possible inclusion of bioethics in schools, given the possibility of a link between education in bioethics and the teaching of *Citizenship and Constitution*. Bioethics - often dealing with new issues in law - calls into question the "constitutional" sensibility of citizens and those who are about to become citizens, and can therefore be *a laboratory space for citizenship education and in-depth study of the principles of the Constitution* (which are the fundamental objectives of *Citizenship and Constitution*). Furthermore, this connection is clearly in line with the thesis present in international documents, particularly European ones, on the meaning of "social" and more specifically "civic" in education in bioethics.

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<sup>59</sup> Cf. A. PORCARELLI (ed), *Cittadini sulla strada. L'educazione alla sicurezza stradale come componente della convivenza civile*, Armando, Rome 2007; ID., *Lineamenti di pedagogia sociale*, Armando, Rome 2009.

<sup>60</sup> For a broad survey profile see the Portal created by the USP of Bologna: [www.cittadinisullastrada.org](http://www.cittadinisullastrada.org).

<sup>61</sup> DM 31/7/2007.

<sup>62</sup> DM 137, September 1, 2008, converted into law, with a vote of confidence, 29 October 2008

<sup>63</sup> The Presidential Decree 89, March 20, 2009 for the first cycle and DPR 87, 88 and 89 of 15 March 2010 containing regulations for the (respective) reorganization of the technical colleges, vocational institutes and high schools.

<sup>64</sup> To investigate the potential offered by new teaching cf. L. Corradini (ed.) *Cittadinanza e Costituzione. Disciplinarietà e trasversalità alla prova della sperimentazione nazionale. Una guida teorico-pratica per docenti*, Tecnodid, Napoli 2009.

The resumption of cooperation between the NBC and MIUR sanctioned by the new *Memorandum of Understanding* of 2010, promotes bioethics education, as said, "even in relation to Citizenship and Constitution"<sup>65</sup>(...). It is therefore possible to consider "even" education in bioethics, among the "awareness-raising actions and staff training aimed at acquiring in the first and second cycle of education knowledge and skills related to *Citizenship and Constitution*, in the context of the historical-geographical areas and the socio-historical areas and the total number of hours scheduled"(Article 1.*Citizenship and Constitution*).

After being tangential or transverse to the various educations, education in bioethics would in this way find its place within the teaching of *Citizenship and Constitution*: practically carving out a specific space in education in *bioethical citizenship* within the broader space of citizenship education. Some apparent specificity of *bioethical citizenship* should however not be forgotten and which have a significant impact on the teaching in question. The inclusion of bioethics education within the skills and knowledge relating to "Citizenship and Constitution, raises the problem of discipline reference areas: indeed the historical-geographical areas and socio-historical areas are appropriate, in fact, the importance of the contribution of history must be emphasized to understand issues such as the birth of bio-politics and the anthropological and social impact of scientific and technical discoveries. Such areas, as the humanities in general, are necessary, but at the same time, insufficient for understanding bioethical issues, there is a clear need to also involve areas of science and technology. Bioethics training needs, because of the particularity of the subject, to follow a course of action characterized by an intertwining of disciplines, distant in terms of methodology and *forma mentis*, consequently appropriate and innovative teaching methods are required.

Lastly, an alternative would be that education in bioethics should find its own space, a space not inside but on the *fringes* of *Citizenship and Constitution*.

## **8. Spontaneous practices of education in bioethics in Italy**

In our country, faced with the complexity of the *iter* of the process of transformation of the school system, education in bioethics albeit still at the cross-disciplinary level or at mere project level, the truth of the matter is that the penetration of bioethics in schools has "in fact" occurred, particularly during the last ten years.

Although the 1999 MIUR-NBC Memorandum of Understanding in recent years has not been implemented, despite the criticism of many, the need for bioethics education has been so present and alive within the school world so as to pursue a series of initiatives that, despite their not being of a systematic and continuous nature due to not having benefitted from the synergy ensured by the MIUR and NBC together, nevertheless these initiatives have, over time, grown in quantity and quality. The National Bioethics Committee itself has promoted the National Conference of Bioethics for Schools, held continuously

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<sup>65</sup> See the appendix of *Memorandum of Understanding* 2010, Art. 2 point C.

since 2001 by the Italian Institute of Bioethics, in collaboration with several universities and think tanks, and now in its eighth edition<sup>66</sup>.

Other initiatives, carried out by universities, centers of research and study groups associations or institutions, or promoted from within school by principals and teachers in recent years, have formed what might be called spontaneous practices of education in bioethics. Places for documentation and discussion for teachers have arisen, linked both to universities, and non-university centers of bioethics, with a clear commitment to the field of education<sup>67</sup>, as well as various *Laboratories for the teaching of bioethics*<sup>68</sup>. A specific space has been set aside to the theme of bioethics education in schools by some issues of "Bioethics and Culture" and "Medicine and Morals," by the journal "Bioethics and Society," and by "Bioethics. Interdisciplinary journal, which has a section dedicated to bioethics education and on the web in the *Bioethics Portal*, that deals with the section "Bioethics and School".

The experience, gained in a spontaneous way since the 90's, in the sphere of scholastic bioethics education have involved a lot of young people, arousing interest and enthusiasm and sowing the seeds of "bioethical skills". It would be of great interest to conduct an enquiry to detect and analyze the experiences of education in bioethics in Italian schools in recent years. Unfortunately, the episodic, occasional, and certainly unstructured nature of this education makes it a particularly difficult undertaking. The survey based on questionnaires only in the Emilia Romagna region in this respect can be a

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<sup>66</sup> The promotion of the National Bioethics Committee arises from the conviction that the Conference achieves one of the NBC's institutional responsibilities, that is, promotion of correct public information on bioethical issues: a particularly important task when applied to the moment public opinion is being formed, namely, the younger generations.

For students of secondary schools, the conferences have so far involved a large number of schools from different regions of Italy. According to a tried and tested method of working, the experts' reports are intertwined with the preordered intervention of the students, who have been prepared in advance by their teachers on the theme of the conference, they intervene with individual and/or group presentations in student forums, so becoming real co-protagonists, or co-authors of the cultural event. Below is a list of the past National Bioethics Conferences for Schools: 1. *Bioethics and Human Rights* – 1st National Bioethics Conference for Schools-Capua, Caserta, 2001. (Publication of acts: M.A. LA TORRE (ed), *Bioetica & diritti umani*, Foreword by G. Berlinguer, Luciano Editore, Napoli 2004); 2. *The metamorphosis of health* – 2nd National Bioethics Conference for Schools - University of Genoa, 2002; 3. *The challenges of genetic engineering*. 3rd National Bioethics Conference for Schools-University of Messina, 2003; (Publication of acts: M. GENSABELLA FURNARI (ed), *Le sfide della genetica. Conoscere, prevenire, curare, modificare*, Rubbettino, Soveria Mannelli 2005); 4. *The European Convention on Human Rights and Biomedicine*. 1st International Conference – 4th National Bioethics Conference for Schools, University of Genova 2004; 5. *The Body between biology biography and the market* - 5th National Bioethics Conference for Schools . Centre for Bioethics in Pontedera (PI), 2006; 6. *Inhabit the earth. The responsibility of living between nature and culture* – 6th National Bioethics Conference for Schools, Centre of Bioethics in Pontedera, Volterra (PI), 2007; 7. *Health as a good. Thirty years after the establishment of the National Health Service*, 7th National Bioethics Conference for Schools, University of Messina, 2-3 April 2009; 8. *Possibilities and limits of genetic inquiry*, 8th National Bioethics Conference for Schools, Piaggio Museum, Pontedera 29 april 2010 (<http://www.governo.it/bioetica/scuola.html>).

<sup>67</sup> We cite, among others: the Centre of Bioethics of Pontedera ([www.centrobioeticapontedera.it](http://www.centrobioeticapontedera.it)); the Centre of Cultural Initiatives of Bologna ([www.bioeticaepersona.it](http://www.bioeticaepersona.it)); the Laboratory of Bioethics of Messina (<http://www.itst.it/pls/itst>).

<sup>68</sup> We cite among all the laboratories of Piedmont, active since the late 90's, first in collaboration with the USP of Turin, then with the USR of Piedmont and other voluntary associations, specifically engaged on bioethical issues.

stimulus<sup>69</sup>, as it shows, despite the small number of schools actually involved, the utility of a survey on "already" implemented projects of education in bioethics, in order not only to highlight its occasional and experimental nature, with all the related pros and cons, but also to obtain models for "good practice".

Another interesting type of investigation is aimed at identifying not so much the "already" implemented projects of education in bioethics, as what according to school experts, "should" characterize a best practice as regards education in bioethics. This is the direction taken by the investigation conducted at the Center for Bioethics at the Catholic University of Rome, which has involved about 1,200 teachers in schools of all levels in the different regions of Italy<sup>70</sup>.

Further investigation would be desirable in order to put together the analysis of what exists and the presentation of the needs and suggestions of experts, extending the sample of schools and teachers interviewed as far as possible. This empirical research may, in fact, give an idea as to "which" may be *good practices in education in bioethics*, formulated not from the outside by means of predetermined ideal models, but from inside the school world, starting with its own dynamism, needs and potential.

Irrespective of this investigation, which constitutes the first of the joint actions of awareness to promote, according to the 2010 protocol, in synergy between MIUR and NBC, from the present state of knowledge one can only note that the education in bioethics practised today in schools appears to be dispensed for the most part through "projects", conducted by teachers, with or without the help of external staff: an education marked by its spontaneous and episodic nature, involving from time to time, part of the student population in an occasional, non-continuous manner, using skills and tools that are not always adequate.

Faced with the reality of some regions, cities and schools where bioethics education can take advantage of teachers that have, in their turn, been trained as well as a network of professors and experts, there are, in fact, the opposite realities of regions, cities and schools in which all this is lacking.

Education in bioethics, due to the difficulty and importance of the pursued objective, needs, for active and responsible citizenship, the transformation of episodic education and the unequal experience gained over the years into continuous and systematic education, which can be guaranteed by the experience obtained throughout Italian territory on the basis of guidelines included in ministerial programmes.

## **9. Guidelines for education in bioethics in schools**

### **9.1. Education in bioethics: a necessary task**

In conclusion, it is possible, starting from the analysis carried out, to say that bioethics education in schools is a necessary task, which at the same time, is complex, and presents particular difficulties.

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<sup>69</sup> Cf. A. PORCARELLI (ed), *Bioetica e convivenza civile: i risultati di una ricerca*, I.R.R.E. Emilia Romagna, Bologna 2004.

<sup>70</sup> Cf. M. L. DI PIETRO, *Bioetica nei curricoli scolastici: il risultato di un'indagine*, in E. SGRECCIA - M. L. DI PIETRO, *Bioetica e formazione*, Vita e Pensiero, Milano 2000.

The moment that education in bioethics is put forward as a *necessary task*, we assume that there is a positive response to the first question that one should ask: *why educate in bioethics?*

Education in bioethics, as we have attempted to highlight above, is an integral part of the citizenship education of the new generations, so much so that we can speak of “bioethical citizenship” or education of the future citizen to make conscious choices in the context of bioethics, biolaw and biopolitics. The right to information, the essential core of democratic life, finds, in bioethical issues, an extremely important application. To take part in the open, free and equal debate that characterizes the “good life” of any democracy, concerning the choices that affect the lives of everyone, such as the choices related to important bioethical issues (from the environment to the care of human life), however, information, despite its playing a primary role, is not the only requirement, education is also necessary.

Education in bioethics is therefore characterized as including within it, information on bioethical issues as well as the teaching of bioethics, as it includes knowledge of bioethical issues, but it goes beyond this, and educates in “bioethical skills”, that is, formation of the capacity to formulate moral judgements, arguing and discussing them with others.

This complex and difficult education, cannot be left to chance or assigned to old and new messages of the media, trusting that alongwith the large amount of provided information there takes over a spontaneous ability as to how to navigate through complex bioethical issues. The risk that is run goes from the specific context of education in bioethics to the wider one of citizenship education, jeopardizing a fundamental right of the future citizen: to be educated to understand the issues of the *polis* and therefore able to decide freely and consciously.

From the close connection between education in bioethics and citizenship education emerge two *fundamental principles of an education in bioethics*: the principle of autonomy and that of justice. The *principle of autonomy* indicates the direction that education in bioethics needs to take, namely the formation of rational, autonomous judgement, free from ideological pressure, so as to guarantee agreement or disagreement which, in interpersonal situations or participation in collective choices, is truly aware and responsible. The *principle of justice* oversees the basic conditions of education in bioethics this requires commitment to the highest social effort so that all future citizens will be ensured a basic education of equal quality, an essential guarantee for their actual participation in the bioethical debate as interlocutors with equal dignity.

If this premise, as to why to educate in bioethics, is accepted, the answer to another question is implicit: *who to educate in bioethics?* It is clear that the recipients of this education will not only be the professionals in certain fields (biologists, biotechnologists, doctors or philosophers, jurists etc.), but all citizens or future citizens. This leads to broadening the scope of education in bioethics beyond that of universities- where the new discipline has long since found a place in our country, being present as an autonomous branch of teaching within the sectors of different scientific disciplines<sup>71</sup>, both in scientific

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<sup>71</sup> Bioethics is included in the sectors of: Forensic Medicine (MED/43), History of Medicine (MED/02) Moral Philosophy (M-FIL/03), and in the indication of Bioethics and Human Rights in the field of Philosophy of Law (IUS/20) and Biolaw, in the sector of Private Law (IUS/03).

faculties<sup>72</sup> and humanities faculties<sup>73</sup> - , to the school context where bioethics is still only present in an informal and discontinuous manner.

The extension of education in bioethics in schools implies, therefore, a dry response to the question about the beneficiaries (all future citizens), opening up yet another question: *when to start education in bioethics?* The answer, if education in bioethics should find a place in primary or secondary school and at what level of the latter, however, requires taking a step further, namely, coming to grips with the difficulties of the task. This will be dealt with later, in the part which addresses the difficulties of *how to educate in bioethics*.

## **9.2. Education in bioethics: a complex task.**

At the basis of all education in bioethics, there is an idea, a definition of bioethics: as we have seen, it would be an unnecessary and redundant recollection, if there were not present today, after forty years since its inception, different ideas and definitions of bioethics, from which it is possible and, in some way, necessary, to orient oneself, and be able to choose. It is appropriate, in order to ensure that education in bioethics is aimed at participation in a pluralistic and open democratic debate to choose the aforementioned broad and authoritative definition of Warren Reich: "The systematic study of the moral dimensions - including moral vision, decisions, conduct, policies – of the life sciences and health care, through a variety of ethical methodologies in an interdisciplinary context"<sup>74</sup>.

From this definition it is possible to identify the complexity of bioethics education according to the two figures of *interdisciplinarity* and *pluralism* in the context of our fundamental constitutional values. According to these two figures, we can read the various questions that our theme poses<sup>75</sup>, questions that must somehow be resolved, if you want to find guidelines for an education in bioethical citizenship.

### **9.2.a. Interdisciplinarity: problems of structure and content**

Interdisciplinarity brings with it a number of questions; these can be subdivided into questions dealing with structure, those dealing with content or those on teaching methodology.

The first question that arises as regards structure is: *how to place bioethics in the school curriculum?* Precisely because of its interdisciplinary nature, bioethics excludes placement within a discipline: to be understood through the study of some of its issues, in the programs of a discipline (philosophy, in most cases), as currently occurs, cannot be considered a point of arrival, but only a starting point for a broader discussion, in which the knowledge of different disciplines intersect, comparing methods and

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<sup>72</sup> As Medicine and Surgery, Nursing, Veterinary Medicine, Biological Sciences, Biotechnology, Pharmacy, etc .

<sup>73</sup> As Arts and Humanities, Educaion, Law, etc.

<sup>74</sup> W. T. REICH (ed.) *Encyclopedia of Bioethics*, Macmillan Library Reference USA, New York 1995. Introduction Vol. I p. XXI.

<sup>75</sup> Cf. L. PALAZZANI, *La formazione in bioetica: modelli e contenuti*, in "Medicina e Morale", 1998, 1, pp.119-131.

languages. The problem that arises is whether it could identify an autonomous space for bioethics, which can mean two things: either a space for bioethics as a *new discipline* in its *own right*, or a space for an *interdisciplinary course* in bioethics. Now, the first solution meets a number of theoretical and practical difficulties. Theoretical difficulties: it seems that the interdisciplinary nature itself requires such a complex a set of knowledge and skills that it is preferable for education in school, to follow the path of dialogue and exchange between different disciplines, reserving an autonomous space for the discipline in university-type-education. Practical difficulties: the inclusion within school *curricula* which have already been outlined or have to be outlined; there is, in each case, the difficulty to 'harmonize space between different disciplines.

It seems, therefore, that the most shared and acceptable solution, which also appears in the documents of the various international bodies previously mentioned, is not to include bioethics as a discipline in itself, but to leave room for interdisciplinary courses. The form that these courses should take remains to be seen. There are basically two hypotheses that emerge:

- *interdisciplinary projects on bioethical issues*: this path has in fact already been pursued by several schools for some time in our country, and exposes the problem of its episodic nature, the use of mostly external figures, the incapacity of ensuring the participation of all students; as well as its extra-curricular aspect and the absence of evaluation all of which are inevitably weaknesses within the process of education.

- *interdisciplinary bioethics modules*: this path, identified on a theoretical level, appears to guarantee, if incorporated in a stable manner and autonomously assessed within school *curricula*, the participation of all students and provides the opportunity to address, with the same teachers of the other disciplines involved, the critical points of education in bioethics.

If, as seems appropriate, the interdisciplinary module approach is chosen, a further question requires clarification: the placement of these modules within the *curricula*, specifically, should these modules have their own *independent space* or should they be incorporated *within the space provided for the teaching of Citizenship and Constitution*. The first solution would guarantee more space and autonomy to education in bioethics, but it would face the difficulty of harmonizing this space with that of other disciplines. The second option would increase the sense of education in bioethics as education for citizenship and would also have the advantage of finding inclusion within a process already traced by law. The immediately evident difficulty is the space that education in bioethics, in itself complex, can find within this process, and on the other hand, the impossibility of its remaining, as already noted, within the subject areas identified by *Citizenship and Constitution*, being essential scientific contexts for bioethics education.

Closely related to the first question - *how to situate bioethics in schools?* – is the second, which is still of a structural nature, even if we can consider it as being midway, since the responses involve also another level, regarding contents and methods: *Who should teach bioethics?*, the teachers of which subjects should be assigned this task? It is clear that, if the path of interdisciplinary modules has been chosen, the answer to this question can only be plural, inclusive and not exclusive: not teachers in humanities *or* teachers of science, but teachers in humanities *and* teachers of science. The problem that remains, however, concerns the training of these teachers: *what kind of training for educators?*

The training of teachers is a problem which, as we have seen, is concentrated on in the documents dedicated to education in bioethics: this formation is particularly complex given the interdisciplinary nature of the subject. In order to ensure the dignity and sense of education in bioethics as citizenship education, this formation can not be left entirely to good will and chance, but must take place through institutional channels or be guaranteed by institutions. It is important in this regard to include:

- that interdisciplinary bioethics modules are to be assigned to teaching staff that has been adequately trained either by means of university courses or via acquisition through *in itinere* formation;
- that the MIUR should promote bioethical formation of the teaching staff chosen for bioethics education, through the provision of *in itinere* training programmes;
- that *in itinere* formation (master, advanced courses, refresher courses) should be entrusted to Universities or Research Centres and/or Training Centres, that have been accredited by the MIUR.

The other question, brought about from the interdisciplinary nature of bioethics, but which moves from the structural level to that of content, concerns the method by which to educate in bioethics and the teaching materials to use. Briefly, it can be reduced to: *how to educate in bioethics?*

This question does not only derive from the interdisciplinary nature of bioethics, but it also leads us to its other aspect, pluralism: it is a question of means, in which these two characteristics, that make the task of education in bioethics complex and particularly difficult, are convergent.

### **9.2.b. Pluralism and its questions**

If we go back to the accepted definition of bioethics in the introduction we see that bioethics is said in the plural form in many ways: due to the different ethical references and also due to the different paradigms by which bioethical questions can be rethought. The question which has now become customary is *which ethics for bioethics?*<sup>76</sup> contains within it another question, *which anthropology for bioethics?* Alongside these we can place the methodological question that has perturbed bioethical literature since the 80's: *which paradigm for bioethics?*

The same questions recur in education in bioethics, they can not be evaded: they are the questions that drive the transition *from the teaching of bioethics*, which should give clear information on its history, the different ways in which it is articulated through diverse ethics, anthropologies and paradigms, *to education in bioethics*, which should provide the learner with the means to orient himself within the wide interdisciplinary and pluralistic context delineated in front of him, elaborating an independent critical opinion on major issues, and gaining the ability to argue and discuss with others, accepting the challenge of comparison with different and sometimes conflicting moral judgments.

It is the transition which, as noted, was insisted on in the Opinion of the NBC *Bioethics and education in the health care system*, from "the ability to

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<sup>76</sup> E. AGAZZI (ed.), *Quale etica per la bioetica*, Franco Angeli, Milan 1990.

know” to “the ability to do” and to “the ability to be”: a passage which in the context of the bioethics education of the future citizen can be explained as “the ability to know”, “the ability to judge”, “the ability to choose”:

- “the ability to know”, that is, to acquire a clear understanding, as objective as possible, even if essential, of the scientific problem that motivates the ethical question (for example: what is in vitro fertilization and how does it take place);

- “the ability to judge”, that is, to have the basic elements to express a pondered moral judgement (situational analysis, reflection on the principles at stake, etc.);

- “the ability to choose”, that is, to be a citizen able to participate in an informed way in the decisions that civil society takes on bioethical issues, comparing one’s own moral judgement with those of others.

The question that can be raised is whether within this education, in addition to the two fundamental principles previously identified, - the principle of autonomy and the principle of justice - there are fundamental values. In the International documents examined is possible to identify a double level of discourse between two statements that are not mutually exclusive, and which do not collide with each other: on one hand, the assertion that education in bioethics should be the preparation for participation in an open and pluralistic debate; and on the other, the affirmation of certain principles and ethical values of reference, such as the dignity, integrity, accountability, equality, justice, equity, solidarity, respect for diversity. To these we can add, following the *Barcelona Declaration* of 1998, the care of vulnerability. There are, in fact, two mistakes to avoid: a dogmatic education which imposes values and a neutral education, which describes values; both are a-critical methods which do not allow for problematization and a critical awareness. The path of education must relate to the fundamental ethical values expressed in the Constitution and in the International Charters in response to techno-social issues.

It is true that these values are themselves subject to interpretation, and that bioethics is the place where the boundaries of personal human life are called into question, thus opening up to different and conflicting interpretations of the same fundamental values. This means that in education in bioethics not only scientific knowledge is important to understand the “facts” of bioethical issues, but also philosophical knowledge, especially ethics and anthropological philosophy, in order to understand both the meaning of reference values and the diverse interpretations of these values. Education in bioethics is given within the pluralist context that characterizes our time, in an attempt to provide the means by which to choose between ethical and anthropological perspectives, to make value judgements, and argue and discuss them in free and democratic debate.

A difficult and complex task, far more than that of accomplishing a dialogue between disciplines which are different in language and method. It is, however, an unavoidable task, registered at a time when bioethics is maturing; this difficulty returns in some of the questions we have left unanswered, outstanding or not yet asked.

The first, which we must now go back to is, “*when to start education in bioethics?*” In the documents and literature taken into consideration, the decision to start at secondary school level is endorsed, given the level of maturity already achieved by its learners: education in bioethics should be

considered on a par with philosophical education, as appropriate to the determined development of the critical sense and moral ego.

The opportunity to adapt education in bioethics to the different stages of maturity of the student is now clear, from the stages of cognitive development to those of the moral ego, however the question to be asked is whether there can be a gradual education in bioethics, which, depending on the issues discussed and the ethical problem that are connected, ensures respect for the timing of maturity and also coherent and progressive preparation to the more complex issues. In this sense, the *Philosophy for Children* could provide an example of best educational practices in formation, through narration of the critical sense and moral judgement even in primary school.

The application of similar methods to the contents of environmental bioethics or animal bioethics could constitute a path for an education in bioethics that starts from the first moments of schooling, in continuity and graduality.

The difficulties involved in the pluralistic nature of bioethics return and intersect with those related to interdisciplinarity, even in a second question: *which method of education in bioethics?*

From documents and literature, emerges the convergence on a number of teaching methods that we can indicate as *laboratories of bioethics*, where issues are discussed in small groups, making the knowledge of scientific and ethical aspects of the problem interact with the discussion of some specific cases. The integration of the two methods, deductive and inductive seems, in fact, the key to better facilitate the development of the capacity to formulate moral judgments on problematic situations<sup>77</sup>.

This teaching method which should comprise interaction of the languages and methods of disciplines, starting with the collaboration between teachers of the different disciplines, returns also to the other question: *which educational tools for education in bioethics?* The Council of Europe has given on this subject an indication which counters that of the many existing manuals on bioethics for schools: not a systematic study, clearly oriented to a model of bioethics, but didactic modules, which can be defined as illustrations of issues (*Educational Tool on Bioethical Issues*), that give each time scientific knowledge, knowledge of the ethical principles involved, the different ethical perspectives, examination of cases, bibliography for in-depth study. The formula of the *Educational Tool* has, as we have seen, the advantage of reconciling two requirements: the accounting for different languages and methods, in simple form, and also the accounting for various ethical perspectives, thus fostering the development of independent moral judgement, which are as aware as possible.

The proposal submitted to schools is that of due informed and critical attention to the material prepared by the NBC during its twenty years of activity. In these texts, in fact, the NBC is true to the double soul of bioethics, interdisciplinarity and pluralism, by both exposing the scientific aspects of the question, and by accounting for the connected ethical problems, according to the different ethical perspectives that emerge, also in light of the International perspective, particularly in Europe<sup>78</sup>.

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<sup>77</sup> Cf. L. PALAZZANI, *La formazione in bioetica: modelli e contenuti*, op cit

<sup>78</sup> It would also be desirable, in line with an emerging trend also in other European countries, to activate on the NBC website a discussion forum where members of the Committee may, with

## Summary and Recommendations

In order to respect the objective of education in bioethics as citizenship education it is recommended that this education be conducted in a manner which:

- guarantees that younger generations receive a basic preparation to participate actively in the bioethical debate, ensuring equal opportunities for information and formation and promoting the development of independent moral judgement and a critical consciousness on the major issues of bioethics, in compliance with fundamental ethical values in a pluralistic and democratic society;

- progressively carries out in a manner consistent with the gradual development of critical thinking and moral judgments, matching to this development the study of issues concerning the principles of science as well as the ethical and legal issues, within the historical and social context;

- is carried out in a continuous and not episodic manner, through interdisciplinary modules on bioethics;

- is entrusted to teachers that have been adequately trained by the competent bodies;

- is conducted through pedagogical methodologies and teaching tools consistent with the educational objectives, starting from the documents of the Italian National Bioethics Committee and International organizations.

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the collaboration of experts from the Scientific Secretariat, respond to requests for clarification or further development by teachers and students.

## **A Personal Remark signed by Professor Carlo Flamigni**

If a member of the NBC has to write a codicil of disagreement relating to a document approved by a so-called "majority" it clearly means that this majority did not agree to enter his dissent in the document. This refusal, in this case legitimate (but, in my opinion, the outcome of a completely wrong initial choice) is due to the fact that the aforesaid "majority" has decided that the Italian National Bioethics Committee must carry out a "prescriptive" task and not a "descriptive" one, and has chosen not to follow the example of almost all the other National Bioethics Committees. I persist in writing "majority" in quotes because I do not think that there can be any majority in a consensus which has not been established according to the rules of democracy, but purely on the basis of arbitrary criteria (where, in fact, are the representatives of Protestants, Muslims and Buddhists within the NBC?) and why one should solve disagreement on moral issues through voting is, in my personal opinion, simply ridiculous.

The NBC has discussed this topic several times, choosing, somewhat paradoxically, to settle the question put forward by some members regarding the unsuitability of putting to the vote the different moral positions that emerged by putting it to the vote. In the documents that I have examined the so-called "descriptive paradigm" is described as the one giving 'the most importance to the rational aspect of ethics, this aspect leads to recognition of the existence, in the conditions typical of open societies, of a plurality of values. By adopting this paradigm the Committee shows that in Italian society it is possible to identify, within the complex problems of bioethics, a plurality of solutions, some of which supported by clear and rational reasons, while others lack obvious and acceptable justification. The Committee would, in this way, become the authoritative place, where the principle bioethical dilemmas of our time are clarified, without claiming to possess the key to truth, the only one that could help to draw up judgements that could not be challenged. In this way public opinion could recognize, in the plurality of positions, a source of opportunity rather than a cause of disorder; politics, for its part, could much more easily and responsibly carry out its rightful task, namely to mediate and choose. All this, entrusted to the force of reason and not to abuse of the majority vote: the receiver of a descriptive opinion can freely evaluate the various arguments and choose those that seem more convincing. It is now clear that those who know they can not rely on rational arguments, but only on revealed truth, are unable to accept such a reasonable solution, the false rationality of religious and confessional bioethics would not hold up in comparison.

At this point it seems obvious to me that to define the documents of the NBC as neutral and pluralistic is unfair and it is just as wrong therefore that they be indicated, in the document, as fundamental texts to be referred to for the teaching of bioethics in schools: in point of fact there are very few "descriptive" documents written by the NBC, they are practically all of a prescriptive nature, this is the natural consequence of the fact that minority opinions have been limited to the codicils of dissent, attached to the main document in theory, but intended to be ignored by everyone (as I myself have demonstrated on several occasions). To be more precise, almost all the documents of the NBC are documents of "catholic bioethics" accepted and not granted that such an anomaly should actually exist.

Therefore this document, neither do I underestimate its importance nor do I ignore its interest, loses all its fundamental qualities because it contains a statement which does not correspond to the truth, which is absolutely unacceptable especially for a work that is aimed at educators and young people. The fact that I am the only one to disagree with it demonstrates the little worth of the choice to proceed by majority votes and however it does not tell the whole truth about the positions taken by members of the Committee on this issue. If I look back to the past, I can recall that totally comparable positions to mine were taken by Eugenio Lecaldano and Carlo Augusto Viano, this can be easily verified (the first request to the Presidency not vote documents dates back to 1990 and was made by Professor Lecaldano and myself). Naturally, I will not refer to the current members and the positions taken by them during the internal discussions of the Committee, which must be kept confidential, but I have found a recent public statement made by Professor Luca Marini, vice-president in charge, which I think I can cite. Copying from *LEFT (July 16, 2010, pg.66)* a piece of an interview. When asked "what scenarios can open up to Italian bioethics" Professor Marini replied: "... The greater sensitivity to the political and media dimension of bioethical issues has been followed by an instrumental attitude by the media that, irrespective of the roles and functions of the Committee, have given an *authoritative value to the opinions of that body, for its purely advisory nature*. The trend towards prescriptive bioethics has created favorable conditions for the use of the Opinions of the NBC not only as a support but even *as the basis of supposed acts intended for regulation...* It has provided the public with a distorted image of the tasks and role of the NBC which is and *remains at least for the time being, reflection on bioethics and not juridical and regulatory legitimization*". On the other hand it would be easy, but totally pleonastic, to quote the statements of the Catholic members of the Committee in favor of prescriptive bioethics and full of absurd paeon against the unfortunate "codicils".

As I have written many times, therefore, the choice to produce documents of prescriptive bioethics is the result of the desire to give voice to the principles of Catholic morality, an option that dates back to 1990, the date of the establishment of the Committee, a choice that no one has challenged with sufficient vigour (and I also feel responsible for this). I accept *oborto collo* that by so doing the opportunity has been missed to give the country a secular bioethical culture for which evidently the need is felt everywhere, but I find it wrong and dangerous that such questionable statements (this is an understatement) be included in a document intended for educators.

#### **A Personal Remark signed by Profs. Antonio Da Re and Vittorio Possenti**

While agreeing on the desirability of introducing elements of teaching and education in bioethics in upper secondary schools, this personal remark would like to draw attention to certain points of considerable criticism that have not been adequately addressed in the document "Bioethics and education in schools".

There is the serious problem of how such teaching and education can actually take place in high schools with young students in the decisive phases of their human, moral and cultural growth, contending with a multiplicity of

knowledge, content and use of different methodologies, due to various reasons to the subjects comprising in their scholastic path. Within this already complex and challenging path a place should now be found even for a specific bioethics education, located within the teaching of "Citizenship and constitution".

In our opinion it is inappropriate that nuclei of education in bioethics should be included within this framework, since bioethics is a discipline that calls into question many more problems, criteria and principles than those that can be managed within the context of `citizenship and constitution`. Perhaps the least inappropriate solution is to entrust the task of giving bioethics lessons to the philosophy professor, who would act as a coordination point for other colleagues, especially those of science: this approach could ensure the education of the fundamentals and critical thinking that are indispensable, but which may be put on notice if the teaching of philosophy is no longer granted an adequate number of hours per week and annually, as provided for in the new ministerial programmes of the so-called high school of human sciences. If these questions are not dealt with, the call for education in bioethics becomes nothing more than a noble aspiration.

The difficulties inherent to the teaching of bioethics are probably underestimated, and not only because it is a relatively new subject and on an epistemological level, it is not yet fully consolidated. The very nature of bioethics requires the convergence of a multiplicity of skills and methodologies; it should be interdisciplinary and therefore should establish itself as a meeting point and point of synthesis for scientific, biomedical, clinical, ethical, legal, philosophical, historical, and anthropological knowledge. It goes without saying that it is extremely difficult to succeed in creating dialogue between different languages and methodologies, so it is improbable that bioethical knowledge can reach a truly interdisciplinary perspective, at best, it may be proposed as a kind of multi-disciplinary perspective. This difficulty is well known to university bioethics scholars and professors and those of the most qualified international research centers; which explains why it defies analysis and simplistic interpretations or reductionist methods.

The very real risk is that of undue simplification. Moreover some teaching tools, already present on the educational publishing market, show how this fear is not unfounded: instead of problematizing the bioethical issues in an interdisciplinary perspective or at least a multidisciplinary one, often they merely repeat stale *clichés* (secular bioethics vs. Catholic bioethics; paradigm of the sanctity of life vs. availability of life, and so on) The intent of this conceptual rigidity seems to be to want to mark the field in which each should stand (or be positioned by others), preconceiving from the very outset the solution to be reached from the analysis of the bioethical issues discussed each time. It is extremely doubtful that this goal is in actual fact educational.

There are two further problems. The opinion refers to the recent Memorandum of Understanding in which the Ministry of Education and the NBC undertake to "promote joint initiatives so that education in bioethics may become an integral part of scholastic education, in order to ensure equal opportunities to the new generations to participate in the public debate on the ethical, social, and legal issues raised by scientific and technological progress". This is a demanding commitment, but strictly speaking, it lies outside the institutional tasks of the NBC, which basically are to "formulate opinions and provide solutions, including for the drafting of legislation" (see the decree of

28/03/1990), in the face of scientific and technical developments and the new clinical applications that affect human life and health. It is true that alongside this duty to advise the Government and the Parliament, the decree also entrusts to the NBC the task to "promote proper public information", but perhaps it is excessive to draw from this the conclusion that the NBC should be systematically concerned with education in bioethics in schools.

It is a different story as concerns the use of the numerous and elaborate documents prepared by the Italian NBC during the last twenty years. In the last lines of the Opinion on 'Bioethics and school', the importance of the privileged knowledge of the documents of the NBC itself and those of similar International organizations is upheld. No objection in general, but if promotion of the teaching of bioethics in high schools is considered to be appropriate, this can not start with the knowledge of the opinions of the NBC: not because they convey "State ethics" or a dogmatic view (criticisms sometimes expressed, although perfectly unfounded and instrumental), but because these opinions due to the high complexity of the issues and their specialist level originate for very different purposes from those of their possible use for education and teaching. In other words, the documents of the NBC are not teaching tools appropriate to the educational objectives of the teaching provided in a secondary school, which can inevitably set aside only few hours and which must start at an *absolutely basic* level. This characteristic is difficult to eliminate, even resorting to simplified drafts of the aforementioned opinions. If at all, they can usefully contribute to 'educate the educators'.

### **A personal remark signed by Prof. Andrea Nicolussi**

To clarify my vote in favour of the document on *Bioethics and education in schools*, I would like to make the following brief observations.

The introduction of bioethics in schools – a very complex subject even because it is characterized by a strong interdisciplinary intertwinement, and often unfortunately the ground of ideological disputes – should represent, in my opinion, an opportunity to foster in students particularly a philosophical awareness of the issue. It, in other words, should be an opportunity not to replace the basic teachings that the bioethical issue must be put in relation with, but to integrate these teachings. In this perspective, bioethics should help to educate students to give thought to the problems aware not only of the different skills required, curious to the different points of view and demanding in terms of arguments and counterarguments, but also generally sensitive to the fundamental questions to which these problems conduct.