



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

Bioethics

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Bioethics Module

The Bioethics Module will address the main ethical, social and legal issues that characterize the current relationship between scientific practices and the normative aspect.




Bioethics Module

At first instance we will explore the arguments and methods used in bioethics.

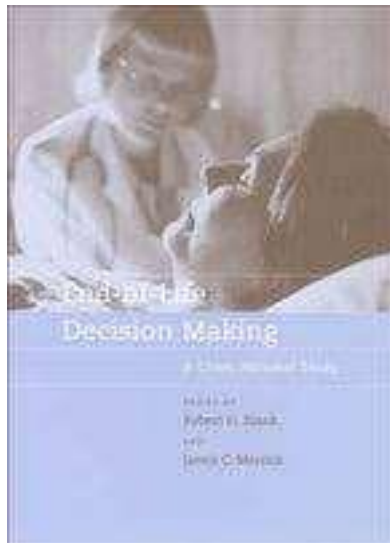
Bioethics
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Bio + Ethics

Study of ethical issues and decision making associated with the use of living organisms



Bioethics Module

In the second part, these tools will be applied to specific topics the issues raised at the beginning of life, by the caring relationship and at the end of life decision making process



Bioethics Module

The two complementary parts aim to help you frame bioethical problems, using the rational argumentation method in their solution:

Ethical Dilemma:

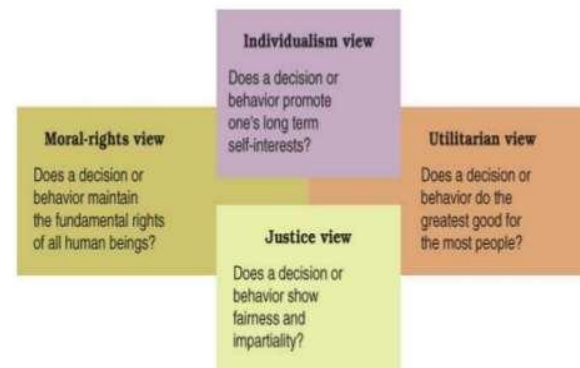
According to Kenneth Blanchard and Norman Vincent Peale, authors of The Power of Ethical Management, there are three questions you should ask yourself whenever you are faced with an ethical dilemma.



ETHICS

Moral Reasoning

- Moral Reasoning
 - Reasons for various ethical practices



Bioethics Module

Method

For each of the identified topics and challenges we will examine (a) how they emerged; (b) what the current state of the debate is, including best practices for the scientist and for society; and (c) what the new directions are, if any, in resolving some of the most acute controversies around the challenges.



Bioethics Module

Resources:

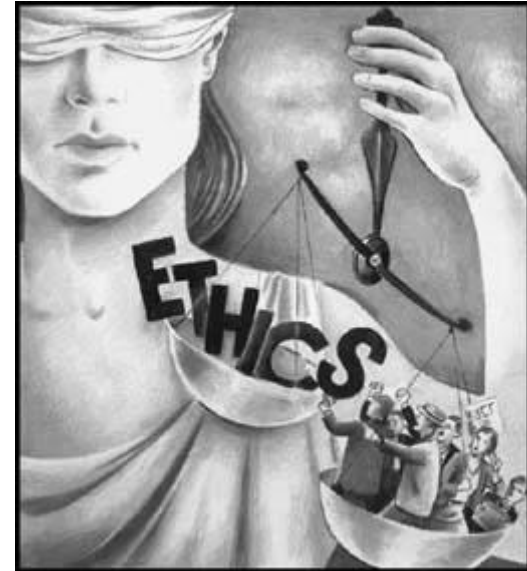
- Slides
- PDF articles
- Links to electronic resources (website, reports, bibliography)

Available at:
virtuale.unibo.it



What is “ethics”?

- **Ethics:** the rules of conduct recognized in respect to a particular class of human actions or a particular group or culture



Who studies ethics?

**Moral philosophers:
they investigate what is morally good and bad,
right and wrong**



**Ethics simply asks the question: “Just because
we *can*, does this mean that we *should*?”**
This is a question for scientists, too.

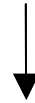


ETHICAL THEORY...TO ACTION

Theory



Principle



Rule



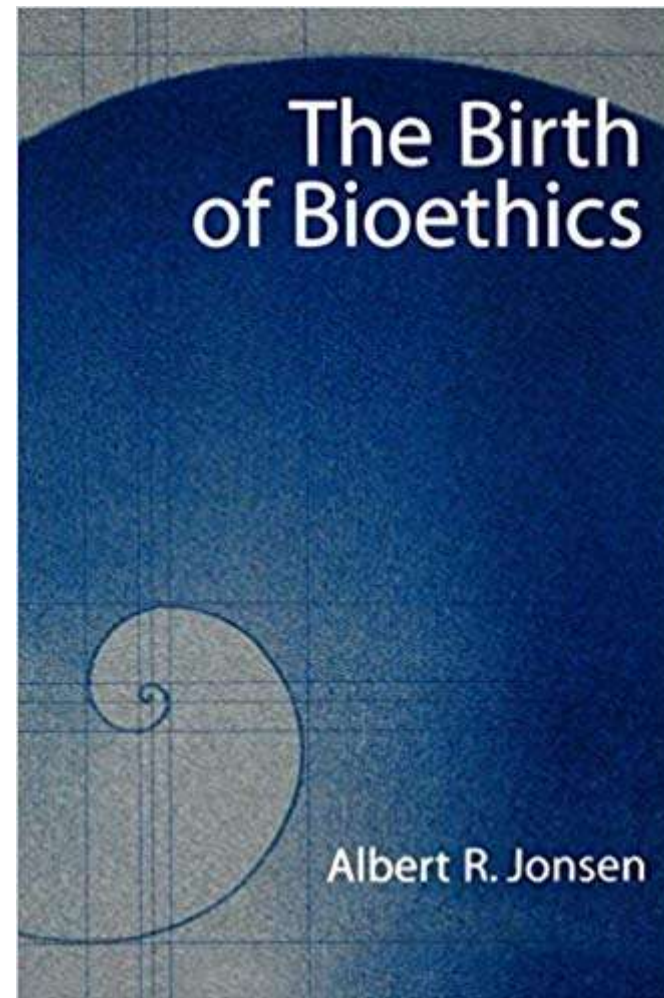
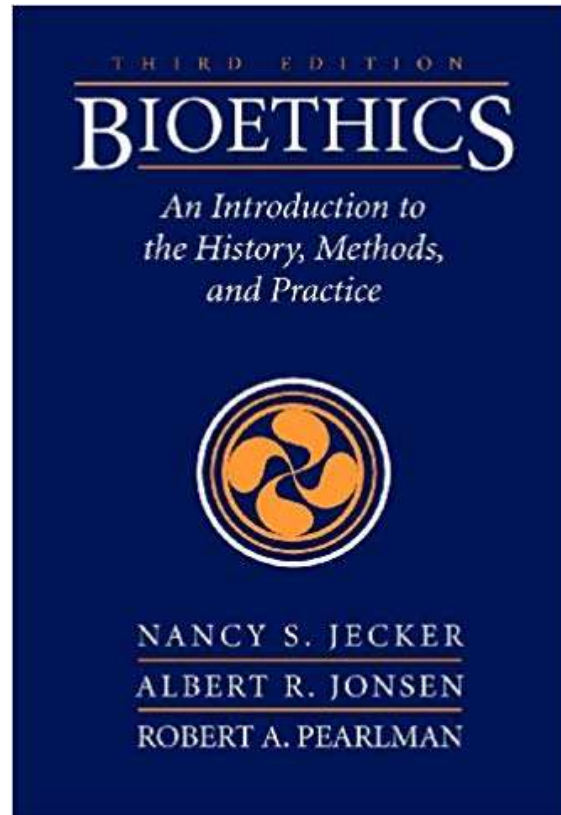
Action

What is “Bioethics”?

- **Bioethics:** a field of study concerned with the **ethics and philosophical implications of certain biological and medical procedures, technologies, and treatments, such as organ transplants, genetic engineering, and care of the terminally ill**



What is “Bioethics”?



What is “Bioethics”?

- Term created by Van Rensselaer Potter (oncologist), in 1970.

- **VAN RENSSELAER POTTER (1911-2001):**



What is Bioethics?

The term “bioethics” was introduced in the 70’s by Van Rensselaer Potter for a study aiming at **ensuring the preservation of the biosphere.**

It was later used to refer a study of the ethical issues arising from health care, biological and medical sciences.

It is a major area in applied ethics.



What is “Bioethics”?

He published:

- 1970 – the article “**Bioethics, the Science of Survival**” in *Perspectives in Biology and Medicine*;
 - 1971 – the book ***Bioethics: Bridge to the Future***.
-

What is “Bioethics”?

- a new philosophy that sought to integrate biology, ecology, medicine, and human values;
 - *“all the medical and natural issues that allow the survival of man in this planet, namely the preservation of an ecosystem that turns the planet inhabitable for human beings”.*
-

BIOETHICS

- **Bioethics** is the philosophical study of the ethical controversies brought about by advances in biology and medicine.
 - **Bioethicists** are concerned with the ethical questions that arise in the relationships among life sciences, biotechnology, medicine, politics, law, philosophy, and theology.
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Who study bioethics?

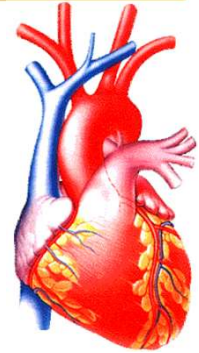
All parts of science must consider bioethics
“Just because we can, should we?”



deals with the questions relating to the appropriate use of
science advancements and new technologies



A classic bioethical decision



- One heart available → who should get it?

17-year old girl



40-year-old school
principal



70-year-old
woman



Bioethics

The emergence of this new area of study has been triggered by and a response to the new scientific/technological developments **in biomedical and life sciences.**



Medical ethics and nursing ethics are more concerned with the ethics of the health care professionals and their relationship with the patient. Bioethics has a broader scope



Main topics in Bioethics

1. Death and dying
2. Pre-birth Issues
3. Issues in human reproduction
4. Human cloning
5. Stem cell research
6. The new genetics
7. Resources allocation
8. Organ transplant
9. Doctor-patient relationships
10. Experimentation with human subjects & animals



Bioethics

Examples of main ethical and legal issues on human reproduction technologies:

- Procreation rights of infertile couples
 - It is unnatural
 - Inequality and exploitation
 - Selling babies (maternal surrogacy)?
- The moral status of extra embryos left over from IVF
 - Definition of parent-child relation
 - Integrity of the family
 - Best interests of the child



Reproductive Cloning

- Creating a genetically identical organism
- Many animals have been successfully cloned



Preimplantation Genetic Diagnosis (PGD)

- Diagnosing inherited genetic disorders “in vitro”
- Choosing which embryos will be transferred to the uterus based upon desired traits
- Gender decisions
- “Designer Babies?”



Genetic Testing

- Individual risk assessment based upon a person's DNA profile
- DNA chip identifies genetic predispositions
- Potential for genetic discrimination
- DNA profiling? DNA banks?



Transgenic Plants

- Engineered plants that contain novel genes from other species
- Results in new characteristics that make plants more desirable and useful to humans
- Are they safe to eat?
- How do they affect the ecosystem?



Bioethics' History

- a) the public acknowledgment of the research done, during World War II, by the Nazi physicians;
- b) the quick progress of biomedicine, posing new ethical dilemmas;
- c) the insufficiency of the traditional ethical concepts to solve the problems raised by biomedicine.



Bioethics' History

1946 – Nuremberg trials:

- German physicians said that they had not practised war crimes, but only obeyed to orders;
- the Nuremberg Code was approved, providing the standards against which the practices of Nazis involved in human experimentation were judged.



Bioethics' History

- **December 1967**: Christian Bernard performs the first heart transplantation at Groote Schuur in Cape City.
- **July 1972**: **Tuskegee Study** (In 1932, the Public Health Service, working with the Tuskegee Institute, began a study to record the natural history of syphilis. It was called the "Tuskegee Study of Untreated Syphilis in the Negro Male) **is publicised as a trial where natural history of syphilis was observed in 399 afro-American who died without treatment.**
- **1973**: The Belmont Report was written by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research.
- **1973**: **Roe vs Wade**: the US Supreme Court recognized a right to abortion, 410. U.S. 113, followed from its decision recognizing a right to privacy.
- **1975**: Karen Quilan's parents ask the administration of the hospital where she was being taken care of, to turn off the machines that kept her alive.
- **1978**: **Louise Brown** was born, the world's first baby to be conceived via in vitro fertilization (IVF)



Encyclopedia of Bioethics (1978, 1995)

In the Introduction to the 1995 revised edition of the Encyclopedia of Bioethics, **Warren Thomas Reich**, Editor in Chief, defined bioethics as:

“the systematic study of the moral dimensions—including moral vision, decisions, conduct, and policies—of the life sciences and health care, employing a variety of ethical methodologies in an interdisciplinary setting.”

This definition shapes the third edition, which continues the broad topical range of earlier editions



Basic Bioethics Principles

The Four-Principle Approach

One of the most important approaches in bioethics is the four-principle approach developed by Tom Beauchamp and James Childress (Principles of Biomedical Ethics, 6th ed., New York: Oxford University Press, 1978, 1990, latest edition 2009).

The four-principle approach, often simply called principlism or principlism, consists of four universal prima facie mid-level ethical principles:

- (1) autonomy, (2) non-maleficence
 - (3) beneficence and (4) justice
-

Basic Bioethics Principles

- AUTONOMY: respect for people's rights
 - *Autonomy*
 - *Dignity*
- BENEFICENCE: Benefits must be proportionate to risks
 - *Potential harm = potential good*



Basic Bioethics Principles

- JUSTICE: The even distribution of benefits and risks throughout society
 - NONMALEFICENCE: Do no harm
 - *Experiment must stop if causes harm.*
-

Autonomy:

- Greek:
 - *autos* “self” and
 - *nomos* “rule,” governance,” or “law”
 - **Self-rule that is free from both controlling interference by others and from certain limitations such as an inadequate understanding that prevents meaningful choice**
(Beauchamp and Childress)
-

BENEFICENCE

- **Providing a benefit to another**
- **Principle of beneficence:** a moral obligation to act for the benefit of others



- Protect and defend rights of others
 - Help persons with disabilities
 - Rescue persons in danger
-

NONMALEFICENCE

- An obligation to not inflict harm on others
 - ***First do no harm***
 - Distinct from Beneficence
 - Obligations not to harm (rob or kill)
 - Obligations to help others (rescue a drowning child)
-

JUSTICE

- Fair and just distribution of social burdens, benefits, opportunities and allocation of positions
 - Justice and Distributive Justice: fair, equitable and appropriate distribution determined by social norms
 - **Access to Health Care**
 - **Selection of Research subject population**
-

PRINCIPLES, RULES, ACTION

Bioethics

- **What could and *should* we do?**
- **Why?**



- **Case specific**
 - **Depends on values of the individuals**
 - **Some universal principles**
-

Finding a Balance

- Focusing on whether or not “we could”
- Instead of whether or not “we should”

Weighing the advantages and disadvantages.

Acknowledging the responsibilities that must be faced with the information that we have acquired.



EXAMPLES OF MORAL THEORY

Utilitarianism

- **Consequence-based theory (Ends justify the means):** the right action is the action that maximises the total well-being. For utilitarians, a couple (or a single reproducer) has a significant moral reason to select the best child, one with the lowest chance of disease and the best prospects for the best life. Because utilitarians have a broad understanding of what makes a life go well, which goes beyond prevention or treatment of disease, they have no objections to genetic enhancement, if it promotes overall well-being.

Kantianism or deontology

- **Why you do something matters...can you make something a universal rule?**
- **The Golden Rule:** the principle of treating others as one would wish to be treated

Liberal Individualism: to protect the right to autonomy and the right of self-determination

Communitarianism

- **The good of the community**

Ethics of Care:

focus on relationships involving care, responsibility, and trust
