
BIOETHICS: PHILOSOPHY MAKING BETTER HEALTH CARE

The materials suggested below were prepared with the grade 12 curriculum in mind. But some of these concepts, resources and questions might also be relevant to the grade 11 curriculum, in particular:

Grade 11: D. The Relevance of Philosophy

Overall Expectation:

- **The Relevance to Everyday Life and Society:** demonstrate an understanding of the relevance of philosophical questions, theories, and skills to their everyday life and to the community and broader society
- **The Relevance to Education and Careers:** demonstrate an understanding of the relevance of philosophy to other subject areas and careers

APPROACHES TO TEACHING BIOETHICS

There are three main approaches to teaching bioethics:

1. Study various ethical theories (Confucianism, stoicism, hedonism, utilitarianism, existentialism, nihilism, ethical relativism, moral particularism, moral pluralism, virtue ethics, casuistry, care ethics, feminist ethics, rights theories, etc.) and consider how these theories would evaluate treatments, practices, or policies that arise in medicine, medical research, and health policy. Compare the suggestions that several different theories would make and try to judge between these possible solutions. This is the main approach by philosophers.
2. Use the principles (autonomy, beneficence, nonmaleficence and justice) from the principlist approach to bioethics (See: Beauchamp and Childress *The Principles of Biomedical Ethics* or *The Belmont Report* <http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html>). Consider how each principle would suggest we approach a bioethical issue and then try to find a balance among the direction(s) suggested by the principles. The principlist approach is the main approach used in medical schools.
3. Use a “stakeholder” decision-making framework to evaluate different bioethical issues (see here https://www.nwabr.org/sites/default/files/pagefiles/NSTA_ScienceEthicsDiscussion.pdf pg. 49 for an example). This is the main approach used by policy analysts.

These approaches can be combined and one approach might be more appropriate in a given context, while a different approach might be more suited to a different context.

SOME QUESTIONS TO RELATE PHILOSOPHICAL TOPICS TO ISSUES IN MEDICINE

I have tried to relate these questions to curriculum requirements, but feel free to move the questions to any section that seems appropriate in your classroom.

C. METAPHYSICS

C.1.1 PERSONAL IDENTITY

- **Head Transplantation Questions:** If a person has a head transplant are they the same person after the operation? Is it the person whose head was grafted, or the person whose body was grafted, that is the

same person over time? Is your answer affected by the characteristics of the individual (for example whether they were a scientist or an athlete)? If a person receives an organ transplantation other than the head are they still the same person? How many of our organs would have to be replaced for us to be considered a different person? What part(s) of the person is (are) privileged in your answer? What justifies your privileging of that part?

- **Alzheimer's Questions:** Locke believes that personal identity and moral responsibility depend on memory. If someone is suffering from Alzheimer's dementia are they the same person as they were before? How does your answer affect whether we should honour the advance directives (living will) they might have written about the treatments they would accept or refuse before they had dementia? What if it seems like the person who now has dementia would make very different choices if they were able to understand what treatments were on offer (e.g. before having Alzheimer's the person was thinking of their parent who was miserable once dementia began, while this person is unlike their parent and seems happy and content)?
- **Genetics and Epigenetics Questions:** how do advances in genetics and epigenetics affect how we think of personal identity? If I change my genes, then am I the same person after the change? Does it matter whether I am the one making the choice to change my genes vs. whether someone else makes that decision on my behalf?

C2.2 PERSONHOOD

- **Abortion questions:** How do views of personhood relate to views about the moral permissibility of abortion? What is the Akan conception of personhood? How would someone using an Akan conception of personhood evaluate the moral permissibility of abortion? How might this view differ from the evaluation that would be made by someone using one of the Western views of personhood? Does the moral permissibility of abortion depend on the personhood status of the fetus? What are our obligations to maintain the lives of persons? (Similar questions could be asked about fetal personhood and stem-cell research and therapies, and/or what to do about excess embryos created for IVF or other assisted reproduction that are not used.)
- **Animal Research Questions:** Are some animals persons? If so, which ones? How does this affect whether it is morally permissible to conduct medical experiments on animals?

D. ETHICS

QUESTIONS IN BIOETHICS

- **Research Ethics and Past Abuses:** Much of our medical knowledge comes from past medical studies that involved abuses of the human participants (e.g. medical knowledge about hypothermia largely came from Nazi experiments on concentration camp prisoners, much of our understanding of nutrition is based on experiments with First Nations children in residential schools). If we draw on this knowledge today are we participating in these past abuses? Is using this knowledge a way of showing respect to the victims of past research abuses so that their deaths were not in vain?
- **Genetic Engineering:** If you could manipulate your own genes what traits would you change? Which traits would you minimize? Which traits would you enhance? (Often it is worth reflecting on whether these traits are even genetic. We tend to assume that "everything" is genetic but this is not the case). If you could manipulate the genes of your child what would you change? Are these different traits? If so, why? Are there limits on parental authority to choose the traits of their children?

If your parents had hand-picked your talents from a list of possible traits would this make you feel differently about your abilities? Do abilities imparted by genetic engineering have the same value as abilities developed through hard work and practice?

If a parent has paid a genetic engineering company to ensure that their child has some particular trait (e.g. athleticism, musical talent, etc.) but the child does not grow up to enjoy those activities or demonstrate those traits, then can a parent sue the company? Could the parent “return” the child as a defective product?

If someone has deliberately selected your characteristics, are you responsible for your actions and decisions or is the person who engineered you responsible?

To what extent is it morally permissible to genetically engineer the plant and animal world to suit human needs or desires?

(See Sample Lesson Plan 1: Genetic Engineering: (How Far) Should we Shape Nature for Human Ends?)

- Prenatal Genetic Testing and Screening:** It is now standard practice for pregnant women to undergo a number of prenatal genetic screens and tests (e.g. ultrasound, maternal serum screening, amniocentesis, chorionic villus sampling). Our ability to test for genetic conditions has outpaced our ability to treat these conditions. If a pregnant woman receives a positive test, often (but not always) the only option is to abort the affected fetus or carry the child to term knowing it will have a particular disability. When offered tests, most women accept the test. If a positive finding for a genetic condition results most women (about 90% for Downs Syndrome, which is a relatively mild condition) accept the recommended abortion. How might social discrimination against people with disabilities affect this decision? Could changes to social systems and social policies (e.g. education and support for families raising children with disabilities) affect these decisions? Do parents have a responsibility to create the healthiest child possible? How do concerns about past eugenic programs that were often racist, sexist, classist, (etc.) affect our evaluation of modern genetic screening?
- Reproductive Technologies:** Advances in reproductive technologies allow infertile couples to have genetically (or partially genetically) related children. But these technologies have also created changes in familial relations. For example, a child could now have several (6 or more) parents (1 woman to donate the extra-nuclear egg and mitochondrial DNA, 1 woman to have her nuclear genetic material implanted in the egg, 1 man to donate the sperm, 1 woman to gestate the fetus, 2 or more parents to raise the child). Are these changes similar to the changes in family dynamics that are introduced by divorce and remarriage, or is there something different about genetic and/or gestational ties?

Facebook and other companies recently announced that they would provide an egg-freezing benefit to their female employees as a means of reducing gender disparities in tech fields. The drugs that allow the harvesting of eggs have some risks, however (ovarian hyperstimulation syndrome, cancer, infertility, etc.). In addition, these procedures would then require expensive IVF for conception and the policies are silent on whether they would cover IVF procedures. Finally, it is not merely the age of the egg that contributes to infertility, the age of the gestational mother also plays a role. Is this kind of employment perk a “benefit” to female employees? Is this a good way to address gender disparities in a field? Are there other ways to address these disparities that might carry fewer health risks (e.g. changes to work expectations, flex time, etc.) Do companies have a right to demand the best years of our lives?
- End of Life Issues:** The Supreme Court of Canada recently (Feb. 6, 2015) struck down the legal prohibition on assisted suicide and euthanasia. Does autonomy include the right to decide to end one’s life? Does autonomy include the right to ask someone else to help you end your life? Does autonomy allow you to make claims on government-funded medical resources to assist you in ending your life? Some disability

rights advocates, such as <http://www.notdeadyet.org/>, oppose the legalization of assisted suicide and euthanasia because they believe these are deadly forms of discrimination. Why do they think this?

ENVIRONMENTAL ETHICS AND MEDICINE

- The manufacture, disposal, and bioprocessing of pharmaceuticals leaks hormones and other chemicals into the water table. These hormones and chemicals are disrupting the development and the reproduction of aquatic life. Is it morally permissible for humans to create pharmaceuticals that benefit our lives and health at the expense of the wellbeing of animals?
- Many of the practices that we use to prevent the spread of disease (e.g. wearing silicone gloves, incinerating biological waste materials, etc.) contribute to climate change and environmental degradation. Can we justify the benefits of these practices against their harms?
- “Environmental Injustice” (or environmental racism, environmental classism, etc.) articulates evidence that pollution and climate change affect poor and racialized groups to a greater extent than those from dominant groups. For example, dumps are often built near poor or racialized neighbourhoods, and dumps that exist in poor and racialized neighbourhoods are often built to less demanding standards than those that are built near wealthy neighbourhoods. To take a second example, industrial factories, resource extraction projects (for example the tar sands), etc. are located near reservations in Canada. The pollution from these projects has a negative effect on human health leading to higher morbidity (incidents of illness) and mortality (lower life expectancy) in these areas. What kinds of responsibilities do wealthy people and members of dominant groups have to shoulder their share of the burdens that result from the goods we all enjoy?

GETTING META: ETHICAL QUESTIONS ABOUT BIOETHICAL METHODS

- The principlist approach was introduced as an attempt to capture the central insight of all the moral theories. Given that no single moral theory is perfect the principlist approach was a practical means of proceeding in light of philosophical disagreements about moral theories. How well does the principlist approach succeed in its aims? Which moral theory (or moral theories) is reflected in which principles? Are any moral theories underrepresented by these principles?

FINANCIAL LITERACY

- Pharmaceutical companies regularly “market diseases” in order to sell medications they have developed. Is it morally permissible to convince individuals they are sick so that they buy your treatment?
- What is the dividing line between promoting research and advertising? How do we tell the two apart? Does this line shift when companies are involved in creating and publishing their own studies?
(See Sample Lesson Plan 2: Confirmation Bias, Publication Bias, and Advertising Pharmaceuticals)
- Some forms of Complementary and Alternative Medicine (CAMs) have very little scientific evidence of efficacy. Is it morally permissible to claim these are “medicines” and to market them as such? Do other non-scientific forms of evidence count for proving efficacy?
- Are markets in human tissues, organs, gametes, and/or gestational capacities morally permissible? Do these markets lead to the commodification of human beings? Is it unfair that clinics, biobanks, and physicians all make a profit from human tissues, organs, gametes, and/or gestational capacities while the individuals who are donating these do not?

- Being in good health is fundamental for pursuing any other kind of opportunity (education, jobs, family, etc.) Do individuals or societies have moral obligations to contribute financially to the health of others?

BLOGS AND WEBSITES ABOUT BIOETHICS

Impact Ethics <http://impactethics.ca/> This blog has a Canadian focus and includes posts from some of Canada's best researchers on issues that affect Canadians. This blog would be useful for teachers to keep abreast of current bioethical issues in Canada. It would also be useful for tweaking the resources listed below so that they are more applicable in a Canadian context.

International Journal of Feminist Approaches to Bioethics <http://www.ijfab.org/blog/> This blog is in English, but has an international focus. It is a good place to keep current about how issues of social justice (sexism, racism, classism, etc.) affect bioethical issues from an international perspective.

Bioethics Forum <http://www.thehastingscenter.org/bioethicsforum/> This blog has a US-focus, but also covers international issues.

Global Bioethics Blog <http://globalbioethics.blogspot.ca/> This blog is in English and covers a variety of topics with an international focus.

TedMed Blog <http://blog.tedmed.com/> This blog discusses scientific research and includes short videos that could be used in class.

LESSON PLANS AND ASSIGNMENTS

Kennedy Institute of Ethics High School Bioethics Curriculum Project

<https://highschoolbioethics.georgetown.edu/information/index.html> This website has a number of resources that can be directly applied to teaching Bioethics in high school. This website is geared to an American audience, and so some issues might have to be tweaked to be applicable in a Canadian context. It has a wealth of useful information.

- The "units" tab has teaching modules (babies born at risk, organ transplantation, human experimentation, eugenics) and each link has several case discussions within each module's topic. The "sample text" link in each module contains the aims of the module, suggested questions for discussion, and assignment suggestions. The "Full Text" link for each module has the links to case discussions and recurring ethical topics. The full text link says it requires an alumni log-in, but this is not true you can access these materials.
- The "bibliographies" tab has links to a list of bioethics-related commercial films, documentaries and educational films, nonfiction and fiction books.

NYU School of Medicine High School Bioethics This website is US-focused, but some of the materials could be tweaked to apply in a Canadian context. It has modules <http://www.med.nyu.edu/highschoolbioethics/module> that contain lesson plans on various topics (Organ transplantation, embryonic stem cell research, assisted reproduction, end-of-life decision-making, psychopharmacology and the self, animal research, and two lessons on methodological issues: "What is Ethics? Key Distinctions" and "Conceptual Foundations of Bioethics"). In addition

to the full lesson plans, the website has “briefs” <http://www.med.nyu.edu/highschoolbioethics/briefs> which are case vignettes, discussion questions and multimedia selections that can supplement existing curricula.

Eubios Ethics Institute “Bioethics Education for Informed Citizens Across Cultures”

<http://www.eubios.info/betext.htm> This website is based in Bangkok; the materials are available primarily in English, some materials are also available in Chinese, Japanese, and German. The website <http://www.eubios.info/bet.htm> includes readings, activities and assessments for both bioethics and environmental ethics. This website might be useful for those who want to include a more cross-cultural approach to teaching bioethics.

Georgetown Scope Notes on Bioethics <https://repository.library.georgetown.edu/handle/10822/549470> This website is US-focused, but it contains brief notes about a variety of bioethical topics. The notes typically contain a 2-page summary of the issue and an annotated bibliography broken down by sub-topic.

Northwest Association for Biomedical Research <https://www.nwabr.org/teacher-center/bioethics-101#overview> This website has five lesson plans for 55 minute classes to introduce bioethics issues that arise in the course of medical research.

Center for the Study of Ethics in the Professions “Ethics Bowl Cases” <http://ethics.iit.edu/teaching/ethics-case-archive> This website has a number of case discussions from an applied ethics competition. Some of these could be a useful classroom activity.

National Center for Professional & Research Ethics “Ethics CORE”

<https://www.nationalethicscenter.org/resources/casestudies> This website has a number of case discussions. These are searchable by topic or name.

Philosophy Handouts and Notes <http://people.brandeis.edu/~teuber/philnotes.html> This website has a number of links to various other websites that deal with applied topics in philosophy (not limited to health care ethics) such as, philosophy in films

BIOETHICS AT THE MOVIES

Bioethics.com Movies <http://www.bioethics.com/reviews/movie-review> This website keeps a list of documentary and commercial films that deal with bioethical themes. It is constantly updated, so if you are looking for something current to show in class, this is a good place to look.

UK Program for Bioethics <http://ukhealthcare.uky.edu/bioethics/film-series/> this website has a list of documentary and commercial films that deal with bioethical issues. It lists the issues addressed in the film as well as a short synopsis of the film.

Scottish Council on Human Bioethics: Films <http://www.schb.org.uk/films/> This website maintains a list of films related to bioethics organized by topic.

Icarus Films Related to Bioethics <http://icarusfilms.com/subjects/bioethic.html> This website has a list of documentary films related to bioethics.

JOBS IN PHILOSOPHY AND BIOETHICS

Artificial Intelligence: As we design self-driving cars, war robots, and other forms of artificial intelligence we need to consider how to program them to have a moral compass. Philosophy graduates have the skills to consider these issues (e.g. ‘the trolley problem’ for self-driving cars, ‘just war’ for robots, etc.)

Clinical Ethicist: Most hospitals in major centres have bioethics departments. Clinical ethicists advise physicians, nurses, patients, and other health care professionals when ethical issues arise. Clinical ethicists develop hospital policies. Clinical ethicists provide “grand rounds” which are educational discussions with the hospital’s health care providers.

Policy Analyst: Policy analysts work for the civil service or other government agencies, for example Health Canada, Public Health Canada, the Canadian Institutes of Health Research, Environment Canada, etc. Philosophy gives the critical thinking and analytic tools necessary to develop and assess the policies that govern our lives.

Ethics Board for Pharmaceutical Research: Many pharmaceutical companies have in-house research ethics boards, or REBs (called institutional research boards, or IRBs, in the US). People who work for REBs look at research protocols and evaluate them for their scientific and ethical merit.

BRING RYERSON TO YOUR CLASS, OR YOUR CLASS TO RYERSON

The Philosophy Department at Ryerson is open to connecting with high school philosophy classes. Our professors would be happy to provide a guest lecture in your classroom, or we would be happy to give your students a “taste” of university by inviting them to sit in on one of our classes. To make arrangements, please contact our undergraduate director, John Caruana jcaruana@ryerson.ca or by phone: 416-979-5000 ext. 7414 or our department administrator, Ryan Walters r2walter@ryerson.ca or by phone: 416-979-5000 ext. 3208