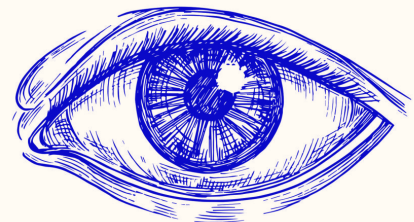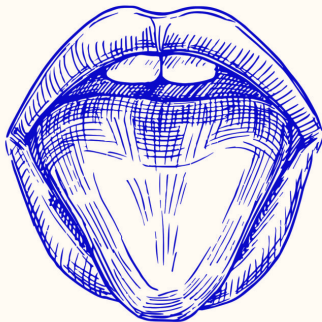*Role-playing game*

Trans human ism

Resources for classroom work

This pack contains the following materials:
1. Transhumanism.
Definition and types of modifications.
Role-play and discussion activity.
Instructions.
2. Sheets with 9 cut-out cards (grouped into 3 sections: Powers, Context and Role):
  Powers
  Genetics or neurochemistry
  Prosthesis
  Implant
  Context
  Family
  Work
  Affective-sexual
  Roles
  Lawyer
  Politician
  Business person

3. Suggested resources to study in the classroom with the pupils, and questions to encourage discussion.
4. To learn more...

Trans human ism

Definition

Transhumanism is a social and philosophical movement that promotes and encourages the use of technology to enhance and modify bodies, minds and social structures. Its historical precursors are eugenics and dystopian literature, or science fiction (*Frankenstein, A Brave New World* and so on), which gave rise to a wide range of opinions and visions as to what human beings could and should be and the future scenarios that certain possibilities for modification might bring into being.

A distinction is made between two possible future periods: transhumanism, when present-day humans decide to modify their structures; and posthumanism, a second era when humans have already evolved towards a new species.

At heart, the transhumanist movement advocates for the dissolution of the norms and boundaries that govern bodies, and which were the result of both natural evolution and the impossibility of carrying out radical modifications to the body. However, two factors transformed this scenario: on the one hand, new technologies that enable us to go beyond what has ever been possible in modifying humanity; and, on the other hand, a social and moral willingness to permit these changes.

In this sense, transhumanism seeks to break down the frontiers of bodies and their functions (reproductive, cognitive, locomotive...). We might well say that, in response to the possibilities of modifying the human body, there is a negative position (bioconservationists) and a positive one (transhumanists). There are many challenges to transhumanism, particularly those related to ethics and legality, although the essentialist objections are perhaps the strongest: at which point does a technologically modified human being become a machine or, at least, is no longer a human being like any other?

Types of modifications:

According to the time when they are made:

Before birth:

In vitro modification of the genes, that is, of the genetic material before the embryo is generated, or *in utero* modifications once the embryo has been formed.

After birth:

During infancy, adolescence or adulthood.

According to methodology:

Chemical:

Neuromedicines, which are drugs that affect the function of the nervous system, or other drugs that are individually adjusted according to the objective to be achieved. For example, drugs to increase memory and concentration.

Biotechnological:

Genetic engineering (direct modification of genes), synthetic DNA or modified blood. For example, doping to enhance sports performance.

Implants:

Technological devices connected directly to the neck or spine. Moreover, deep brain implants can affect the senses. For example, cochlear implants that affect the hearing and implants that modify the sight.

Muscular stimulators, or exoskeletons:

External structures that can assist movement and/or increase the capabilities of the human body.

Trans-species:

Cases in which people do not identify with the human species (totally or partially) and undergo modifications inspired by other non-human species, such as, for example, animals.

Role-play and discussion activity

Instructions

The activity consists of a role-play in which the class is divided into groups of 4 pupils. The teacher gives each group the 9 cards.

Instructions:

1. Each group places the 9 cards in the 3 corresponding piles: Powers, Context and Roles.

2. Three members of the groups each take a card, each from a different pile. The fourth group member acts as the secretary, writing the account of the turn.

3. Next, each pupil, based on the content of their card, has to imagine a situation and explain it to the rest of the group. Once the three suggestions have been made, the group discusses what would happen in these conditions of Power, Context and Role. The secretary writes down the conclusions.

   For example:

   The player who chooses the Power card has to imagine a benefit or a new cyborg feeling achieved thanks to a particular technology. For example: A body implant that provides access to the Internet everywhere.

   The player who chooses the Context card has to imagine how this power can affect a particular context. For example, in a work environment, could the fact that an employee has this power affect the company?

   The player who chooses the Role card has to put themselves in the position of the person on it (lawyer, politician or employer). For example: If you were a politician, how would you handle the fact and what proposals would you make to regulate citizens having (or not having) the possibility of acquiring this power?

4. The players take turns: the one that had chosen the Power card now takes a Context card, the one with the Context card now takes a Role card, the person who had the Role card now plays the role of secretary and, finally, the previous secretary takes a Power card. And so on for three turns. Once the cards have been used, they are returned to the corresponding pile. In principle, each member can choose the card they want from the pile assigned to them, although we should remember that the more variety, the more interesting the activity.

5. Once all changes of turn considered necessary have been made (we recommend from 4 to 6 changes), the group reviews the notes on all the turns, and the final reflection begins:

   a. Could you share some individual reflections with the group?

   b. Would you like to elaborate on some of your thoughts?

   c. Would you add any additional context?

   d. Is any important role missing?

   e. What would you particularly note as being the most significant or surprising fact?

6. Once the work in small groups is complete, the discussion is opened up to the whole class and the students are asked what happened in the role-play and what challenges transhumanism poses.

7. We believe that the importance of the following points should be stressed in the discussions:

   - Individual and social equality: do those who are modified have the right to have an advantage?

   - Essentialism as a false value (based on the *ad antiquitatem* fallacy): that is, the idea that if something has been done or believed in for a long time, it must be good or true. This assertion is a fallacy, since the truthfulness of an argument does not depend on whether it is new or old, but on the facts and evidence that confirm or refute it.

   - Moral challenges concerning a *different* new way of being (or not being) a person.

   - The fact that, nowadays, there are already many people with bodily and/or cognitive modifications: cochlear implants, prostheses, glasses, pacemakers and so on).

At the end of this dossier, you will find a number of resources to view and/or read in the classroom, and a short list of questions and subjects that can be used to encourage discussion among the students.

Role

You are a
lawyer

You are the person who has to legally defend one of these two possibilities:

1. Respect for current legislation concerning the proposed change (Is it valid? Is it legal?).

2. Proposing a necessary legal change to justify and integrate people with this change.

You need to argue your position. You are now part of the social machinery!

Role

You are a
politician

In theory you want what is best for society, but you don't want to create conflicts that could harm you and your party politically or in the media, because you want to stay in power as long as possible.

Taking your inspiration from current political parties, would you do?

Role

You are a
business person

The priority is economic benefit, if not you would have created an NGO. However, there are nuances regarding how to do things.

You have two options:

1. You are the company offering this modification and you have to try to persuade your potential customers.

2. One of your employees has decided to modify their body. with the change chosen. You have to decide whether or not you will continue to employ them.

Powers

Choose a power that you can attain through
GENETIC OR NEURO-CHEMICAL MODIFICATIONS

This includes:

- Genetic editing.

- The creation of made to measure artificial organs, whether different from those already present in the human body or the same but because the original ones have failed.

- The use of chemical substances to alter the identity or abilities; for example, drugs or medicines to increase concentration or physical performance, to improve social behaviour, to relax and so on on.

Powers

Choose a power that you can attain through the use of
PROSTHESES
(such as exoskeletons).

- There are prostheses:

- For the senses: enhanced vision, better hearing...

- Muscular: exoskeletons, for example, to enhance runnning.

- For the body: more teeth or arms, different motors such as rockets...

Powers

Choose a power that you can attain from
BODY IMPLANTS
(in the brain or other parts of the body).

Body implants enable the body to acquire new abilities, perhaps even without anyone else being aware of it. For example, microphones in the teeth, internal loudspeakers, memory enhancers in the neck, artificial retinas in the eyes and so on.

Context

The action you have to define takes place in a
FAMILY ENVIRONMENT

Think about things related to specific situations, such as meal times, mutual care among family members, shared problems, household chores, family relationships, etc.

Context

The action you have to define takes place in an
WORK ENVIRONMENT

Think about what might happen if a person equipped with a transhuman device arrived at work (company, shop, leisure service...). Would this change things for other people working there?

Context

The action you have to define takes place in a
SEXUAL-AFFECTIVE ENVIRONMENT

There are various possible scenarios:

- Changes to the body may affect normal affective relationships.

- Sexual relationships may be modified by these technological changes.

Suggested resources to study in the classroom with the pupils, and questions to encourage discussion

TEDxBarcelona – Núria Conde: Cómo convertirse en un biohacker (2016):

Transhumanismo y Cyborgs: 4 increíbles historias que desafían los límites de la vida – *Infobae* (2019):

Programa Redes -Transhumanismo – Edurard Punset amb Ray Kurzweil (2009):

Ciborgs, grinders y biohackers: el próximo paso de la evolución – Ismael Marinero. El mundo (2017):

Questions and subjects

- What is biohacking? Who are biohackers?

- Do you think it is a new movement or has it been around for a long time?

- Could it become fashionable if celebrities become interested?

- Could they force us to be modified?

- Will transhumans, if they sense the world differently, understand and share ideas with non-transhumans?

- What happens if the implants expire or cease to receive support and assistance? Will they depend on private companies?

- What would happen to the security and privacy of our data? Couldn't we become even more traceable?

- Do you think it is possible to transfer the mind to a machine?

- Will "natural" humans have the same rights as transhumans? Or fewer?

To learn more...

For working on with pupils

Conde, N. (30 novembre 2016). **«TEDxBarcelona: Cómo convertirse en un biohacker».** *DIY Bio Barcelona:*

Diàlegs de Pedralbes

Cortina, A. *et al.* (febrer 2017). **«Intel·ligència artificial i transhumanisme»,** *Temes d'Avui: Revista de Teologia i Qüestions Actuals,* **56.** [Study from the Christian bioethical perspective]:

Sánchez, C. (3 juny 2015). **«Transhumanismo en política: ¿votarías por ser un cíborg que vive eternamente?»,** *elDiario.es.* [Article about the Transhumanist political party in the USA]:

Diàlegs de Pedralbes 2020 - **Posthumanisme: el perfeccionament de l'espècie humana. Per què no?**

Diàlegs de Pedralbes 2021 - **Com relacionar-nos amb els robots. Què és la roboètica?**

Diàlegs de Pedralbes 2020 - **Reptes ètics de l'edició genètica**

References for teachers

Bostrom, N. i Savulescu, J. (ed.). (2017). **Mejoramiento humano.** *Saragossa: Teell.*

Braidotti, R. (2015). **Lo Posthumano.** *Barcelona: Gedisa.*

Diéguez, A. J. (2017). **Transhumanismo: La búsqueda tecnológica del mejoramiento humano.** *Barcelona: Herder.*

Ferry, L. (2017). **La revolución transhumanista: Cómo la tecnomedicina y la uberización del mundo van a transformar nuestras vidas.** *Madrid: Alianza.*

Vallverdú, J. i Cortés. N. (2016). **Corporeidades.** *Ciutat de Mèxic: CENART.*

Sádaba, J. (2019). **«Trashumanismo». AGORA: Papeles de Filosofía, 38(1):** 7-14. [Professional article]

Sánchez Margalef, F. (2020). **Axiologia i pedagogia en la cosmovisió transhumanista: una aproximació fenomenològica i hermenèutica. Universitat de Barcelona.** [Doctoral thesis]

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