

Transhumanism in Language Teaching

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Onco-mice and cloned sheep, drones and auto-automobiles, neuro-enhancement and prosthetic therapy: Is transhumanism a “movement that epitomizes the most daring, courageous, imaginative, and idealistic aspirations of humanity”, as the American libertarian science writer Ronald Bailey hailed it (2004), or rather “the world’s most dangerous idea”, as the well-known US political scientist Francis Fukuyama (2009) once called it. This paper attempts to elucidate what we understand by the term *transhumanism*, what topics and problems we face, what media are suitable for classroom use, what lesson scenarios seem effective, what benefits we may reap, and what challenges we have to cope with.

1. Terminology

Given the multitude of different directions, it is not surprising that we face almost as many definitions as there are people writing about the subject. There is no generally valid definition of *transhumanism* (Latin “trans”: ‘beyond’, and “humanus”: ‘humane’). Max More (1990) offers the following definition:

Transhumanism shares many elements of humanism, including a respect for reason and science, a commitment to progress, and a valuing of human (or *transhuman*) existence in this life rather than in some supernatural ‘afterlife’. *Transhumanism* differs from humanism in recognizing and anticipating the radical alterations in the nature and possibilities of our lives resulting from various sciences and technologies such as neuroscience and neuropharmacology, life extension, nanotechnology, artificial ultraintelligence, and space habitation, combined with a rational philosophy and value system.

In nuce: Transhumanism represents a line of thought that seeks to expand the limits of human possibilities by using various technological procedures. The evolution of life has promoted the development of higher and higher species – and probably did not end with man.

“Human is a step in evolution,
not the culmination.”
(Nikola Danaylov)

In the past, nature has brought forth new species, but today man has so much scientific and technical skill that we can consciously create new species.

Through conscious self-evolution, humans may perhaps transform themselves into higher beings who are physically, intellectually, ethically, culturally, aesthetically and emotionally much higher than they are today – as far above us humans as we are above the monkey:

from
Trans-Chimpanzees
to
Trans-Humans

The conceptual heterogeneity, on the one hand, results from the multitude of disciplines involved (biology and philosophy, cybernetics and artificial intelligence, political science and literary studies, nanotechnology and complexity theory, etc.), and, on the other hand, from the overlap with the concept of *posthumanism*. “We need to understand that five hundred years of humanism may be coming to an end, as humanism transforms itself into something that we must helplessly call posthumanism” (Hassan 1977: 843). Posthumanists (cf. i.a. Nayar 2014) deny the classical humanist paradigm, “in which an ideal human Self/Subject stands at the center of creation and commands all that is not made in ... ‘His’ image” (Csicsery-Ronay 1999: 313), reject a human exceptionalism (Snaza et al. 2014) and demand the decentering of the human being.

This implies a fundamental egalitarianism, which starts from a single matter, postulates an equality of all life and abolishes traditional binary oppositions (Braidotti 2014). That is why opposites such as nature – artificiality, body – spirit, material – virtual, organic – mechanical, human – animal are obsolete.

To further increase the terminological confusion, the affixes post- and trans- as well as super-, meta-, hyper- or anti- appear as prefixes of humanism. Although *posthumanism* is the most popular term, this “post” (‘after’) evokes either the departure from humanity and the paradoxical notion that man has the will and the power to proclaim his end, or associations with ‘against / anti’. *Transhumanism* seems to be a more appropriate term, because it is more neutral in value, not reminiscent of ‘after’ or ‘anti’, something that lies beyond common notions of the human being and does not have to be limited to technological innovations.

2. Issues

In view of these facets, the following thematic decalogue could be dealt with in foreign language teaching.

2.1 Practical Issues

What is the likelihood that the goals sought by transhumanists can actually be achieved?

Critics doubt the feasibility of predicted technologies and point to numerous failed prophecies concerning technological progress in the past (Jones 1998, Dublin 1992). However, one could also argue that in view of the enormous medical progress in recent decades, humanity is already transhuman.

2.2 Ethical Issues

To what extent do transhumanist positions threaten human values?

The Nobel Prize 2020 for chemistry was awarded for the development of *Crispr/Cas 9*, a method of genome editing. With the help of these genetic scissors, the dream of being able to cure inherited diseases may come true. This tool has taken the life sciences into a new era and can bring great benefit to humankind. Yet, what is a promise, can also be a peril. Due to its potential to alter human heredity, *Crispr* has become one of the most controversial developments in science. In 2018, He Jiankui, a Chinese scientist, announced that he had used the tool to edit the genes of human embryos, which brought forth the world's first genetically modified infants. His experiments were condemned by many in the scientific community as reckless and risky.

Several biologists reject the intention of interfering with nature by overcoming universal human limitations (ageing, physical and cognitive limits), eliminating the difference between humans and artifacts, and producing human-animal chimeras (McKibben 2003, Rifkin 1993, Newman 2003). However, some personality theorists discard this criticism as anthropomorphobia (Isaac Asimov's "Frankenstein complex", i.e. the fear of mechanical men, which produces the "yuck factor", a reaction of repugnance and distaste), or regard physical self-optimization as a logical consequence of a commercialized hyper-individualism.

This begs the question: Is there still an ontological distinction between human – non-human – inhuman – animal?

2.3 Eugenic Issues

Do genetic engineering experiments lead to eugenic discrimination?

Historical experiences, e.g. Social Darwinism, the survival of the fittest, racial hygiene, the Aryan race, the Germanic “Übermenschen” master race with its dogmas of life unworthy of life and blood purity, sometimes give rise to visions full of inhuman scenarios.

2.4 Religious Issues

Are human beings allowed to put themselves in the place of God?

What some transhumanists promise us for this world (“heaven on earth”), Christian theologians expect only in the hereafter: the end of suffering and eternal life (International Theological Commission 2002).

2.5 Political Issues

Does transhumanism undermine the ideals of liberal democracy?

Fukuyama (2009), for example, fears a fundamental change in human nature and equality (“... we all possess a human essence”).

2.6 Socio-Economic Issues

Will the gap between rich and poor become even wider?

Especially the wealthy classes can afford the emerging enhancement technologies, which could lead to a “genetic divide” (McKibben 2003) and a two-tier society of genetic “haves” versus “have nots” (see the film *Gattaca*, 1997).

2.7 Existential Issues

Do modern technologies threaten human survival?

British astrologer Rees (2003), for example, claims that new technologies pose an immense risk to Earth and that the probability of humanity’s demise before 2100 is 50 %. In contrast, the so-called “precautionary principle” suggests that humans are cautious in preventing potential dangers, despite a patchy knowledge base.

2.8 Cultural-Aesthetic Issues

In his concept of *panoptism*, Michel Foucault (1977) already noted the social conformity of the individual resulting from increasing surveillance mechanisms. Society controls human bodies by making them feel that they are observed permanently; accordingly they stage themselves aesthetically. Against the background of AI and posthuman bioethics, Abrams (2004) fears the elimination of differences in favour of uniformity.

2.9 Technological Issues

How can we weigh the pros and cons of all the individual transhumanistic techniques?

Does a hybrid fusion of human bodies with intelligent machines make sense (chip implantation, cyborgs)? Or the freezing of the body/brain for later reanimation (cryonics)? Or the transfer of one's own consciousness to an external medium (mind uploading) (e.g. Greenfield 2015)?

2.10 Media-Educational Issues

Should digital media in education be assessed more critically?

At least representatives of a critical posthumanism ask themselves this question. "In education, however, the rather uncritical endorsement of a narrative of digitalisation as a means of progress and a blessing merely and rather unreflectedly underlines the dominance of technology that a critical posthumanism calls into question" (Bartosch 2019: 15). In the "brave new world of digital learning", a critical reflection of the narrative of innovation should also take into account the underlying interests of business groups, and change the question of "what works" to "works for what".

3. Media

"The medium is the message", as the Canadian communication theorist Marshall McLuhan once claimed – or is it the message? Does a movie, or a novel, or a computer game relieve or sharpen our pain of transhumanism?

The following selection can only offer a small part of the large reservoir of media with transhumanistic motifs, which may be suitable for the foreign language classroom (cf. i.a. Thaler 2018, 2016, 2014, 2012, 2008).

3.1 Visual Fiction

- Miller, Frank et al. 2013. *RoboCop*.
- Rosenberg, Louis. 2008. *Upgrade*.
- Rosenberg, Louis. 2014. *Monkey Room*.
- Tan, Shaun. 2006. *The Arrival*.
- Thomas, Valerie. 2016. *Winnie's Big Bad Robot*.

In this picture book, Winnie the Witch makes a cardboard robot and decides to turn it into a real robot. That, however, is a BIG mistake! Winnie and Wilbur soon discover that the Big Bad Robot is trouble, especially when it grabs Winnie's magic wand.

3.2 Novels

- Atwood, Margaret. 2003. *Oryx and Crake*.
- Brown, Dan, 2013. *Inferno*.
- Coetzee, J.M. 1999. *The Lives of Animals*.
- DeLillo, Don. 2016. *Zero K*.
- Egan, Greg. 1995. *Distress*.
- Ghosh, Amitav. 1995. *The Calcutta Chromosome*.
- Gibson, William 1984. *Neuromancer*.

The *Sprawl* trilogy is Gibson's first set of novels, composed of *Neuromancer* (1984), *Count Zero* (1986), and *Mona Lisa Overdrive* (1988). It is set in a near-future world dominated by ubiquitous technology and powerful corporations, and guided by mind-machine interface (MMI), emerging machine intelligence, and global information space ("cyberspace").

- Huxley, Aldous. 1932. *Brave New World*.
- Hornung, Eva. 2009. *Dog Boy*.
- Ishiguro, Kazuo. 2005. *Never Let Me Go*.
- Lanchester, John. 2019. *The Wall*.

In his latest novel, the author of *The Capital* (2012) recounts a dystopian story after a climatic event, when movement between countries is outlawed, and the UK has turned into a fortress, which is walled in concrete and controlled by British youngsters looking for "Others". Lanchester's disquieting environmental anti-utopia was longlisted for the Booker Prize 2019.

- Lowry, Lois. 1993. *The Giver* (Film: 2015)
- Shelley, Mary. 1818. *Frankenstein*.
- Simmons, Dan. 1991. *Hyperion*.
- Wells, Herbert George. 1896. *The Island of Dr. Moreau*.

3.3 Plays

- Churchill, Caryl. 2008. *A Number*.

In this drama, the English playwright treats the topic of human identity and cloning, in particular nature versus nurture. Exploring the risks of artificial creation, the play is centred around the conflict between a father and his three sons, two of whom are clones of the first one.

- Marshall-Griffith, Linda. 2016. *Charlotte Brontë's Village Re-imagined*.

3.4 Short Stories

- Buckell, Tobias. 2004. *Necahual*.
- Hulme, Keri. 2004. *Floating Words*.
- Stiegler, Marc. 1989. *The Gentle Seduction*.

3.5 Poems

- *Bot or Not*. <http://botpoet.com/>.

This poem is a Turing test for poetry: The reader has to guess whether the poem they are reading is written by a human or by a computer.

- Brautigan, Richard. 1967. *All Watched Over by Machines of Loving Grace*.

*I like to think
(and the sooner the better!)
of a cybernetic meadow
where mammals and computers
live together in mutually
programming harmony
like pure water
touching clear sky ...*

- Burke, Ben. 2015. *The Transhumanist's Lament*. <https://ideas.ted.com/a-poem-from-the-future/> (audio + verse).

*... The wallpaper can see that you're stressed,
So it turns a lovely shade of blue
The thermostat has thought things over
And is ready to have a word with you ...
And Doctor mailman robot
Printed your pills in quite a hurry
Your vitamins were running low
Now there's B12 in your curry ...*

3.6 Non-Fictional Texts

- *H+Pedia*. https://hpluspedia.org/wiki/Main_Page.
- Harari, Yuval Noah. 2015. *Homo Deus. A Brief History of Tomorrow*.

In his new cult book, the author of *Sapiens* examines the future of Homo sapiens. He realizes that during the 21st century, humanity may gain immortality and God-like powers (*homo deus*), but he closes with the following question: “What will happen to society, politics and daily life when non-conscious but highly intelligent algorithms know us better than we know ourselves?”

- Kurzweil, Ray. 2005. *The Singularity Is Near: When Humans Transcend Biology*.
- More, Max/Natasha Vita-More (eds.). 2013. *The Transhumanist Reader*.
- Pottbäcker, Kirsten. 2006. *Science (Fiction) in the Third Millennium*. “Challenges” series.

3.7 Movies

- *Avatar*. 2009ff.
- *Bladerunner*. 1982.
- *Her*. 2013.

This American sci-fi romantic drama movie directed by Spike Jonze satirizes digital affairs in a techno-perfect future world. It is centred around the relationship between an introverted man (acted by Joaquin Phoenix) and an artificially intelligent virtual assistant with a female voice.

- *Gattaca*. 1997.

“I not only think that we will tamper with Mother Nature, I think Mother wants us to.” (Willard Gaylin, *Gattaca*)

- *I, Robot*. 2004.
- *Matrix*. 1999.
- *RoboCop*. 1987.
- *The Hunger Games*. 2012ff.
- *Transformers*. 2007ff.

- *Transcendence*. 2013.
- *X-Men*. 2000ff.

3.8 TV Series

- *Black Mirror*. 2011ff.
- *Life after People*. 2009/10.
- *Orphan Black*. 2013ff.
- *Stargate SG-1*. 1997ff.
- *Westworld*. 2016ff.
- *Years and Years*. 2019ff.

3.9 Documentaries

- *Fixed: The Science/Fiction of Human Enhancement*. 2013.
- *How Would Immortality Change the Way We Live?* 2017 (6 min.).
- *Ray Kurzweil: The Coming Singularity*. www.youtube.com/watch?v=1uIzS1uCOcE
- *Transcendent Man*. 2009.

This docu chronicles the life and visions of Ray Kurzweil, an American futurist, hailed by Forbes as “the ultimate thinking machine”. It also presents his daring vision of the Singularity, i.e. a point in the near future when technology will be changing so quickly that we will need to enhance ourselves with artificial intelligence to keep up.

- *Transhumanism*. 2019.
www.youtube.com/watch?v=RmS_aL-cKxU
- *Visions of the Future: Science and Technology*. 2018.

This is a collection of 6 x 5–7-minute clips on regenerative medicine, genetic match-making, the city car, the bionic boot, etc.

3.10 Music Videos

- A Capella Science. 2016. *CRISPR-Cas9*

This hilarious *Mr. Sandman* parody satirizes the Nobel Prize (2020) winning genetic engineering technique by which the genomes of living organisms can be modified:

(lyrics) ... *Cas9*

Cheap and precise

Rewriting genomes from microbes to mice

And soon the humble human being

CRISPR-Cas9 bring me a gene ...

- Dorian Electra. 2015. *Forever Young: A Love Song to Ray Kurzweil*.
- Lady Gaga. 2011. *Born This Way*.

Lady Gaga plays with identity in a post-/transhumanist manner (Miller 2020):

- is an alien goddess, a zombie, a dancer, an evil goddess, a humanoid life form; video cuts between shots of her different roles ► her identity is constantly changing
- common binaries are broken down: good/evil (“How can I protect something so perfect without evil?”), male/female, white/nonwhite (backup dancers in shadow ► gender and racial distinctions obscure), human/non-human (new creatures: “a race within the human race”, “bears no prejudice, no judgment” ► transhumanist ideas: more than human, human enhancement)
- lyrics: “I was born this way” ► contradiction to posthuman message (universal and constant nature in each person) or emphasis of posthumanism (“same DNA” ► breakdown of binaries)?
- music: autotuning, electronically manipulating the human voice ► a hybrid human-robotic sound ► distinction between human and machine distorted.

- Katy Perry. 2011. *E.T.*

3.11 Songs

- Coldplay. 2005. *Talk*.
- Grimes. 2012. *Be a Body*.
- Neurotech. 2014. *Transhuman*.

- Post Human Era. 2011. *Building the Machine*.
- Queen. 1986. *Who Wants to Live Forever*.
- The Lisps. 2011. *Singularity*.

3.12 Computer Games

- *Deus Ex*. 2000ff.
- *Fallout 4*. 2015.
- *BioShock*. 2007ff.

4. Scenarios

Apart from the impulses given in the section above, teachers could be inspired by the following lesson sequences:

- Carrying out a blog project discussing the question “What makes us human?”, including a class blog and individual student blogs (Herbrechter 2019)
- Studying representations of posthumans in visual literature, making use of picture books and graphic novels, and finally having pupils design their own posthumans (Ludwig/Shiplely 2019)
- Organizing debates on the pros and cons of certain transcultural technologies, e.g. cryonics
- Planning an intermedial sequence on Ray Kurzweil with the help of his book on singularity, a documentary and a music video (see above)
- Addressing the ethical dilemmas of cloning by reading a novel by Ishiguro and a play by Churchill (Boller/Voigts 2019)
- Focusing the concept of *otherness* by treating a theatre play, a TV series and a novel (Hoydis 2019)
- Discussing quotations, e.g.

- | |
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| <ul style="list-style-type: none"> ▷ <i>It may be that our role on this planet is not to worship God – but to create him.</i> (Arthur C. Clarke) ▷ <i>It is a postmodern truth universally acknowledged that today's parody is tomorrow's reality.</i> (Csicsery-Ronay) ▷ <i>L'existence précède essence.</i> (Jean Paul Sartre) |
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5. Potential

All these teaching scenarios already hint at the benefits of this topic in TEFL. Trans- and posthumanism are themes of timeless topicality and existential relevance. Motifs such as the striving for immortality can be found in the Gilgamesh Epic and the historical search for the source of eternal youth. In addition, are there more important questions than “What is man?” and “What can/should/must/may he/she be?”?

These questions should also arouse intrinsic interest among our adolescent students. Technological future scenarios generally evoke excitement and creativity in our “digital native” learners.

Furthermore, there is no shortage of fascinating media and materials for a lively discussion of the usually very controversial transhumanist concepts – rather the agony of choice. By now, there are canonical literary texts, for which secondary sources are already available (e.g. Atwood’s *Oryx and Crake*, Ishiguro’s *Never Let Me Go*).

Finally, the discourse on transhumanism in the field of research methods could lead to a critical reflection on the *empirical turn*, which discriminates against hermeneutic-interpretive methods in favour of quantitative-statistical methods. Snaza/Weaver (2014: 2), for example, attack this “methodocentrism” – “the belief that particular, pre-formed methods can guarantee the validity of an intellectual investigation into the world by factoring out the vicissitudes of the observer’s entanglement with the world.” However, purely empirical methods do not do justice to the complexity of human relationships and learning processes – this “more-than-human world” (Ib.).

6. Challenges

Where there are benefits, there must be problems as well. “Nichts ist ohne sein Gegenteil wahr”, as Martin Walser once claimed, or “Sic et Non” (“Yes and No”), as Peter Abelard, the medieval French scholastic philosopher, stated in the 12th century.

Dealing with trans-/posthumanism in the classroom presents the teacher with two challenges which are anything but insignificant. In terms of discourse evaluation, it is often difficult to distinguish between serious argumentation and fashionable hype. What is catchy neologism, euphoric take-off into dream worlds, sectarian dogmatism, irrational speculation, fanaticism, nihilism, expression of human self-hatred, fear-of-death-driven fantasy? And where are we dealing with scientifically founded and ethically reflected developments? With

some advocates of transhumanism, one believes to be able to diagnose symptoms of over-confidence. Hype or hubris?

From a didactic point of view, high demands are put on the teacher's competence. Who possesses sufficient domain-specific knowledge in artificial intelligence, nanotechnology, biotechnology, information technology, simulated reality, super-intelligence, chemical brain preservation, 3D bio-printing, mind uploading, cryonics? "Dealing with the posthuman as an encounter with alterity on various levels presupposes and requires quite a lot of theoretical knowledge, textual-analytical skills and understanding" (Hoydis 2019: 175). The complexity and heterogeneity of the topic is further exacerbated by partly contradictory positions and intersections between *post-* and *trans-*, between humanism and feminism, colonialism, modernism etc.: "One runs the risk of overburdening the curriculum with just one too many '-isms', 'post-', and 'trans-', each of which, of course, easily warrants instructional consideration and a class (or several) on its own" (Ib.).

7. Conclusion

Well, who is right: Is transhumanism "the most dangerous idea in the world" (Fukuyama 2009) or "the most daring, courageous, visionary and idealistic endeavor of mankind" (Bailey 2004)?

We humans are – and have always been – a work in progress of creation or evolution. "Up till now human life has generally been, as Hobbes described it, 'nasty, brutish and short'" (Huxley 1957). Are we not called upon "to think beyond humanism, anthropomorphism and anthropocentrism" (Callus et al. 2014: 112)? Bartosch demands a critical discourse "with the future, with global survival and with living together" (2019: 13). To let the biologist, "founder" of transhumanism (and brother of the great writer Aldous) once again have his say: "The human species can, if it wishes, transcend itself" (Huxley 1957) – with Julian Huxley consciously inserting the short conditional clause "if it wishes".

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