

Learning Unit 8: Greening the brain

GGH2604



Sources to consult

- **Atlas:** Switzerland, India and Morocco
- **Prescribed book:** Chapter 8: Greening the brain: Understanding and changing human behaviour, pages 143-161 and chapter 9: Misanthropy, adaptation and safe operating spaces, pages 162-163 in Whitehead (2014)
- **Case studies 8.1 and 8.2:** Conscientious consumption and renewable energy policies in Morocco
- **Additional resources on myUnisa:** YouTube videos and Podcast 8.4

Learning Outcomes

- Identify and explain the links between human behaviour and environmental degradation.
- Analyse and describe the causes and extent of environmental degradation associated with resource consumption.
- Assess the possible consequences of overconsumption with reference to case studies.
- Describe how environmental policies can reduce or prevent environmental degradation.

Human psychology in the Anthropocene

- Researchers contend that although humans like to think of themselves as rational decision makers (carefully weighing up options to guide important decisions), a significant portion of human behaviour is driven by irrational (emotional) prompts to action.
- In the example of climate change, it appears that those living in the poorer parts of the world – who have contributed least to global warming – will experience many of the worst effects of climate change. Therefore, it is argued that without a direct, emotional connection to the consequences of climate change, it will remain difficult to motivate people in more developed countries (MDCs) – who are the main emitters of greenhouse gases (GHGs) – to reform their carbon-emitting behaviours.

Changing patterns of human behaviour and their environmental consequences

- **Read** Case study 8.1: Conscientious consumption
- **Listen** to Podcast 8.4 titled “Overconsumption” on myUnisa.
- **Vote** in Poll 8.4 on myUnisa. The poll question is:
 - In your opinion, can the consumption of environmentally friendly white goods (household appliances) assist with achieving sustainability?
- **Watch** the YouTube video titled “This video has consumed 122.8 household-days of electricity!” from the link:
<https://www.youtube.com/watch?v=EQzyo3q-C2Y>

Changing patterns of human behaviour and their environmental consequences

- **Watch** the YouTube video titled “Ecological footprint of countries: Deficit or reserve?” from the link:
<https://www.youtube.com/watch?v=6g49bL9f7mU>
- **Participate** in the Discussion Forum Topic 8 on myUnisa:
 - Revisit the theories on population growth and resource exploitation in Learning Unit 2. Whitehead (2014:149) claims “...if the whole world consumed at rates similar to that in the UK we would collectively require 3.1 planets to provide all of the resources required”. In your opinion, are the ecological footprints of MDCs examples of the Malthusian, Cornucopian, Peakist or Marxist perspective? Give reasons to support your answer.

Understanding human behaviours: Religion, science and ideology

- The biological perspective suggests that by the very nature of human evolution as a species – competing with other species and exploiting environmental resources as best we can – we tend to be "by nature aggressive, materialistic, utilitarian and self-interested".
- In his theory – *The Empathic Civilisation* – American economist Rifkin argues that despite long-held beliefs that humans are inherently self-interested and individualistic, humans are a naturally empathic species.
- He further relies upon the work of biologists who suggest that there are "mirror neurons" in the brain, which mean our brains have a "predisposition for empathetic response" when we see distress in other mammalian species.

Understanding human behaviours: Religion, science and ideology

- Some theorists have claimed that the emergence of organised religion – particularly in the Judeo-Christian tradition – lies at the centre of our exploitative environmental conducts.
- Lynn White Jnr claims that Christianity has generated a situation where humans believe that they are superior to the rest of nature and that scientific and technological interference with the environment is justified.
- Neil Smith claims that it is capitalism that has laid the foundations for current patterns of environmental exploitation. By objectifying nature, capitalism has made it much easier for people to accept the large-scale transformation of resources since long commodity chains and complex market place exchanges obscure the environmental consequences of these actions.

Changing human environmental behaviours: Beyond *Homo economicus*

- The figure of *Homo economicus* is a type of 'economic person' who lives out life as a rational market actor.
- The term *Homo economicus* was coined on the belief in rational human action. In a market economy, the efficient distribution of goods and services requires humans to respond to price signals in a rational way: Buying the things they want at the most competitive prices.
- There are different ways to shape decision-making without having to revert to the coercive powers of law and legislation.
- Australia and the European Union have established carbon markets in and through which companies can trade greenhouse gas emission permits with each other. By giving GHG emissions a price, a rational incentive is provided for companies to reduce their emissions and enhance their profits.

Changing human environmental behaviours: *Beyond Homo economicus*

- Research in economics, behavioural psychology and neuroscience has started to cast serious doubts on the rationality assumptions associated with *Homo economicus*.
- At the heart of these studies has been recognition of the significant role that emotions and irrationality play in human decision making and behaviour.
- Corporations have been exploiting the emotional aspects of our decision making to influence our consumption patterns through advertisements, the design of supermarkets and other prompts to encourage us to consume their products in ever-greater quantities.

Changing human environmental behaviours: *Beyond Homo economicus*

- However, the idea that humans are *predictably irrational* provides an opportunity for policy makers to design environmental strategies that can coax human action away from mass consumption.
- **Vote** in Poll 8.6 on myUnisa. The poll question is:
 - Corporations exploit irrational aspects of human behaviour to increase consumption levels. Do you think it is ethical to use pro-environmental behaviour policies (that may also be considered as forms of social manipulation) to decrease consumption levels?

Misanthropy, adaptation and safe operating spaces

- Although thinking about the Anthropocene appears to require us to place humans at the centre of environmental studies, there are dangers within this anthropocentric perspective.
- Even though we may worry over the long-term environmental impacts of human development over the last 6 000 years, some may take solace in the fact that humans are in charge of the biosphere and can address ecological problems. Nevertheless, this immodesty can lead us to forget that humans are still only one part of the planetary system. Failing to acknowledge the natural limits that exist to human development could have devastating consequences for both the environment and human wellbeing.

Misanthropy, adaptation and safe operating spaces

- Discussions of the Anthropocene can create a fertile breeding ground for misanthropy – the hatred of humans. Supporters of the deep green perspective argue that the response to the imbalances in the global ecosystem should prioritise the needs of the environment over those of humans.
- Several environmental policies and awareness campaigns, aimed at changing human behaviour towards the environment, have been launched in recent years. These campaigns are regarded as instrumental in maintaining safe operating limits (preventing resource depletion and limiting environmental degradation). Examples of these campaigns are Earth Hour and Earth Overshoot Day.

Misanthropy, adaptation and safe operating spaces

- **Read** Case study 8.2: Renewable energy policies in Morocco
- **Watch** the YouTube video titled “Noor, the largest concentrated solar power complex in the world” from the link:

<https://www.youtube.com/watch?v=WGCYlogzjcl>

Thank you

Acknowledgement: This document was compiled by Mr DS Boshoff

Define tomorrow.

UNISA


college of
agriculture and
environmental sciences