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Climate change workshop - learning activities in the psychology classroom

Mette Eggertsen - Denmark

Morag Williamson - Scotland

.....Klimawandel.... ilmastonmuutoksen..... klimacændringer..... klimatförändring
...loftslagsbreytingar.... изменение климата..... le changement climatique....
..cambio climático.... klimaätverandering zmena klímy..... klimatsânîgîgo....

Workshop overview

- Climate change is probably the biggest challenge that our young people will have to face in life.
- It is a phenomenon which involves numerous psychological processes and impacts – cognitive, social, mental health etc.
- This workshop will suggest practical learning activities to help psychology students develop an understanding of these processes in relation to climate change and beyond.

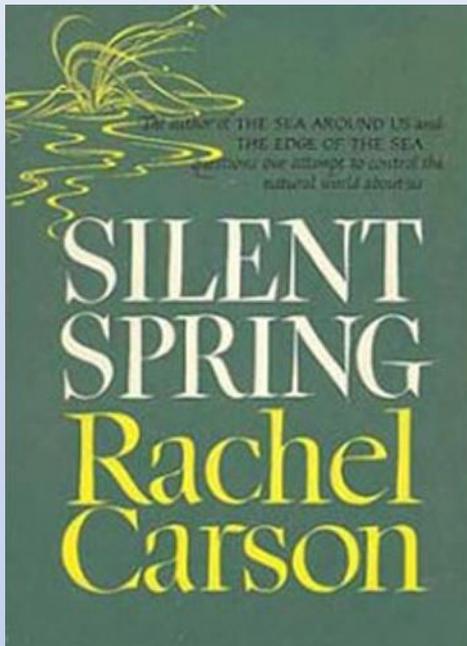


Climate crisis – some context

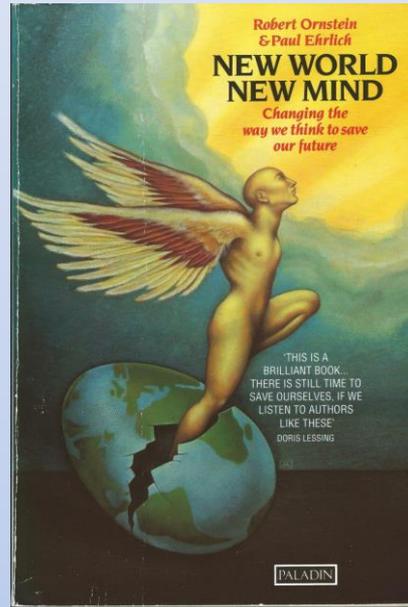
- Rio 1992: Concern about environmental degradation and climate change becoming global, though scientists had been giving warnings long before then.
- UNFCCC - the United Nations Framework Convention on Climate Change (1994) is the parent treaty of the Paris Agreement 2016: commitment to limit global temperature rise this century to 1.5 degrees. Has currently near-universal ratification: by COP27, late 2022, 198 parties.
- Conference of the Parties (COP): the COP is the supreme decision-making body of the Convention (COP26 Glasgow 2021, COP27 Egypt 2022.)
- UNFCCC cooperates with Intergovernmental Panel on Climate Change (IPCC), an independent scientific body.
- Sustainable Development Goals (SDGs) established by UN in 2015, under UN 2030 Agenda for Sustainable Development
- SDG 13: Take urgent action to combat climate change and its impacts “Governments, the private sector and civil society must work together to take immediate action”
- Recent years: increasing climate protest actions often led by young people, e.g. Extinction Rebellion. Many are inspired by Greta Thunberg’s School Strike.



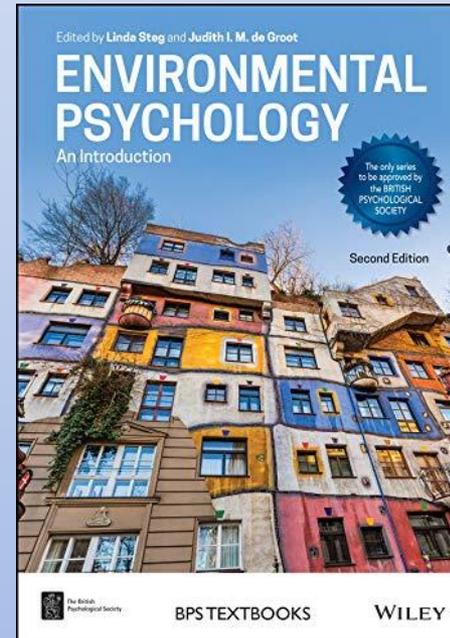
Environmental concern -> environmental psychology



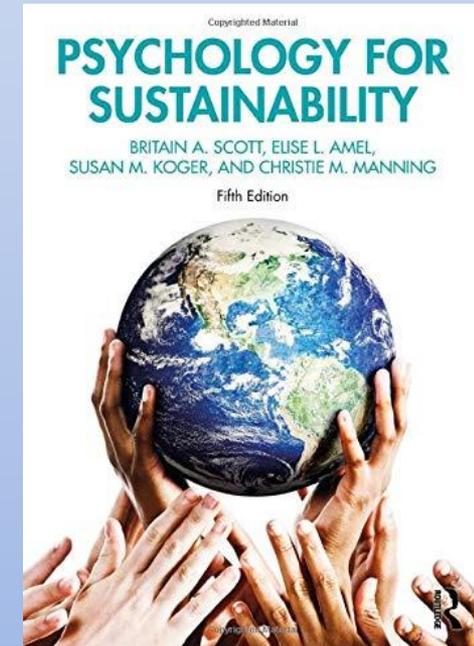
1962



1991



2019



2021

Examples of growth of interest in environment & environmental psychology

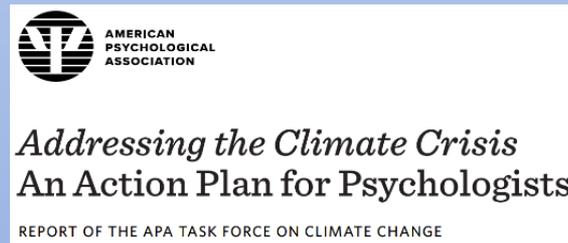
- Rachel Carson (1962): Silent Spring
- Robert Ornstein and Paul Ehrlich (1991): New World, New Mind
- Linda Steg & Judith I.M.De Groot (Eds)(2019): Environmental Psychology
- Britain A.Scott et al (2021): Psychology for Sustainability

Shift in perspectives

- Early applications of psychology in environmentalism focused on individual behaviour change (e.g. recycling); now more recognition of responsibilities of governments and large corporations – societal and political dimensions
- Growing awareness of interaction of climate change with poverty and inequality globally, affecting both physical and psychological health
- Huge growth in concern and psychological research into effects on young people's mental health and wellbeing - eco-distress, activism

What can psychologists and psychology educators do?

- Role of psychologists?
- Role of school education?
- Role of psychology education? e.g. APA



Ideas for classroom activities for students:

Activity 1 – practical research tasks

Can be used as classroom activities, or as student research projects

Questionnaire A: beliefs about cause – natural v. anthropogenic:

Thinking about the causes of climate change, which of the following best describes your opinion?:

	Tick one	Scoring key* (do not show to participants)
Climate change is entirely caused by natural processes		1
Climate change is mainly caused by natural processes		2
Climate change is partly caused by natural processes and partly caused by human activity		3
Climate change is mainly caused by human activity		4
Climate change is entirely caused by human activity		5
There is no such thing as climate change		0

* a high score means a strong belief in anthropogenic causes of climate change

Questionnaire adapted from Poortinga et al. (2011)

Questionnaire B: pro-environmental motivation

Please indicate to what extent you agree with each of the following statements

scoring*	strongly agree	agree	not sure	disagree	strongly disagree
	5	4	3	2	1
1. I feel a personal obligation to do what I can to help reduce climate change					
2. I am prepared to reduce my energy use to help tackle climate change					
3. I am prepared to avoid travelling by car and use public transport instead					
4. I am prepared to donate money to an environmental organisation					
5. I try to persuade others that it's important to tackle climate change					
6. I try to always re-cycle all items that are re-cyclable					

*Responses are totalled to give each participant a single score (max = 30); high score means high level of pro-environmental motivation. Sources: Arnocky et al (2014), Hornsey et al (2015), and Milfont and Duckitt (2004)

How the questionnaires could be used in student research projects

- Test for **differences** between genders, age groups, cultures, personality types, etc; both above questionnaires could be used **quasi-experimentally** in this way
- Discover whether there is a **correlation** between beliefs about causes and pro-environmental motivation; participants would complete both questionnaires
- Investigate whether a 'present-oriented' or 'future-oriented' mindset, **experimentally** manipulated, will affect pro-environmental motivation, using Questionnaire B

Various climate- and environment-related measures can be used in similar ways for student research tasks

- Gender / age / culture (etc) differences in measures such as connectedness to nature, environmental concern, eco-distress, etc
- Correlations of environment-related measures with measures such as emotional empathy, self-efficacy, locus of control, activism, wellbeing etc.

Search / browse the research literature for ideas and measures suitable for adapting for student tasks!

Activity 2:

'real-life' scenarios & psychological concepts

Which psychological concepts do you think might be most relevant to Louise in this scenario?

Louise worries about global warming. She signs petitions to reduce fossil fuels, encourage recycling, etc. But she also loves to travel and in recent years she has flown to New York, Sydney, & Rio de Janeiro. She knows air travel is a major factor in climate change but doesn't feel guilty - she tells herself the flights would happen anyway.

minority influence

anxiety

denial

cognitive dissonance

personality

attitudes-behaviour relationship

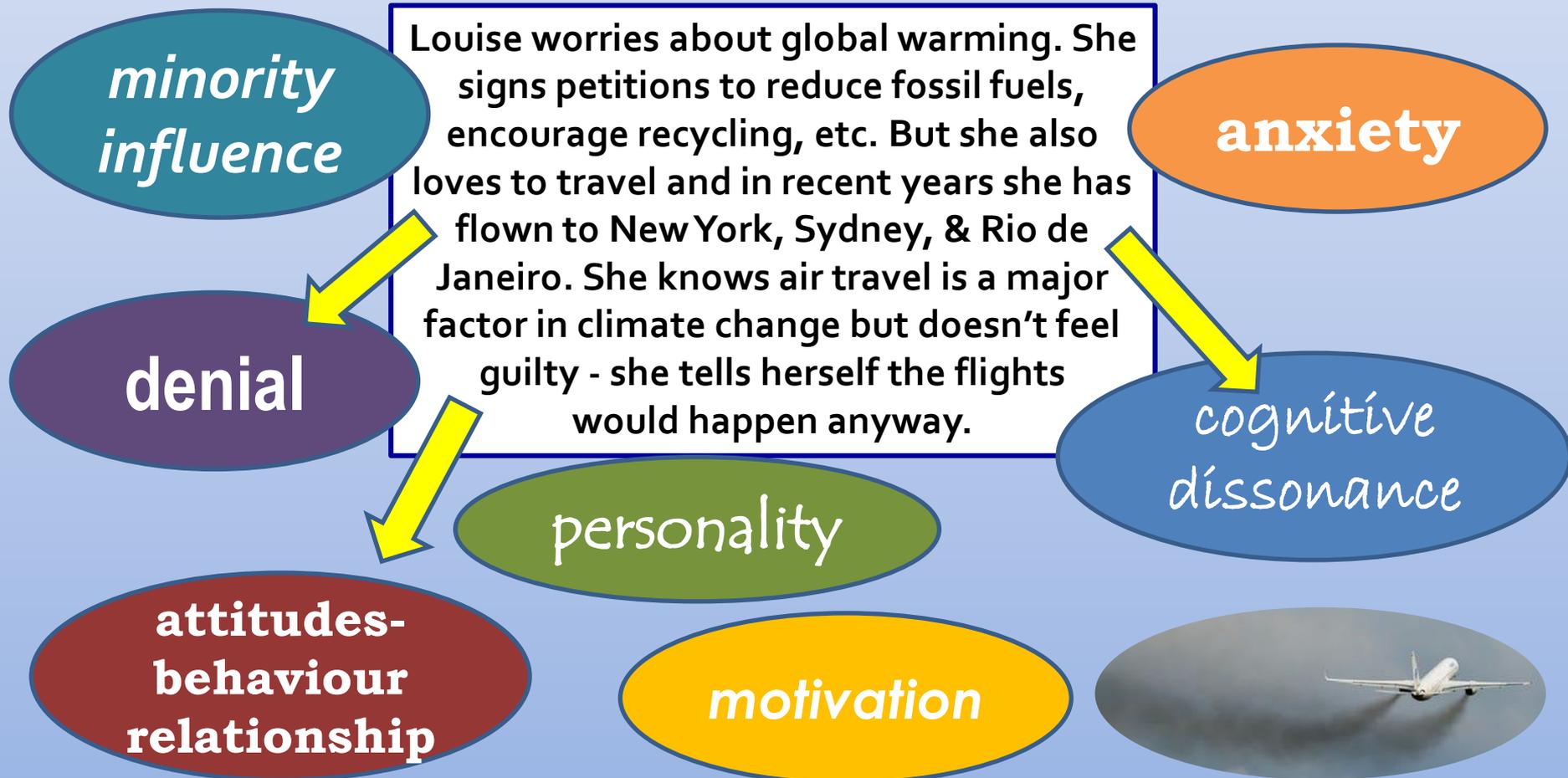
motivation



Activity 2:

'real-life' scenarios & psychological concepts

Which psychological concepts do you think might be most relevant to Louise in this scenario? → suggested answers



Activity 2: some more scenarios and concepts

1. Frida's Dad buys multi-packs of bottled water so family members can take a bottle with them to school or work every day. Frida notices some of her friends have trendy new re-usable bottles, and she reads about a survey that found 80% of people had recently switched to a re-usable bottle. She is surprised, and wants one too! She asks her Dad to stop buying bottled water. She goes shopping for an eco-bottle.

2. Hans loves animals and is studying to be a vet. A part of the job he dreads is having to 'put to sleep' (euthanise) pet cats and dogs - it upsets their owners so much. He can't bear to see wild animals suffering in extreme climate events like droughts, floods and wildfires, so he volunteers with an international animal rescue charity.

3. Ayisha lives on her own in a small city flat. During the covid pandemic she had to work from home, online, often for long hours. She goes out for an hour's walk each day, usually in a nearby park (which previously she never visited as it seemed boring). Though naturally shy, she starts to chat to people she meets, and learns the names of plants, trees and birds.

4. Marcus always drives the short distance to work. He has a bicycle but rarely uses it as it's too challenging - he is not physically fit. His car breaks down and the bicycle is his only option as there is no public transport. It's hard at first but after a week he has coped. He is starting to enjoy it and is thinking about giving up his car.

attitudes / attitude change
motivation

subjective norms

learned helplessness

connectedness to nature

locus of control

attitudes-behaviour link

pro-social behaviour /altruism

confirmatory bias

perseverance

cognitive dissonance

minority influence

defence mechanisms

moral reasoning

conformity

personality

empathy

self-efficacy

denial

anxiety



Questions for further discussion

Climate change / environmental issues/sustainability involve many psychological processes – we have shown a few examples of how these can feature in our psychology teaching. But many questions still need to be explored, for example:

- we have focused only on psychology in relation to climate /sustainability, but in schools are there also opportunities for cross-disciplinary student projects? involving environmental science, politics, citizenship, philosophy etc, as well as psychology?
- are there ethical concerns in discussing the environmental crisis in psychology lessons? should we avoid it, for fear of causing student distress? or would we be failing in our responsibilities to young people by NOT addressing it?
- Should we proactively encourage our students to engage in sustainability projects and climate activism, based on evidence of benefits to well-being?
- should our main aim as psychology teachers be to equip young people to address the challenges they will face in life?
- the learning activities above are suitable to illustrate concepts and theories in many existing school psychology courses, which are often structured on traditional lines (eg core domains); should we turn this approach on its head and explicitly design the psychology curriculum around climate change/sustainability and other key challenges?

Finally....

*Thanks for taking part in our
workshop!*

If you teach, or have taught, psychological
aspects of climate change / environmental
issues/ sustainability –

please tell us about it!

Contact Mette and Morag at info@efpta.org

References and further reading

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Some useful sources

- http://unfccc.int/paris_agreement/items/9485.php
- <https://sustainabledevelopment.un.org/topics/climatechange>
- <http://www.teachsdgs.org/>
- <https://www.youtube.com/watch?v=pgNLonYOCgs>
- <http://ipcc.ch/organization/organization.shtml>
- http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/sternreview_index.htm
- <https://www.climatepsychologyalliance.org/>

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