# Lesson Plan: Behavioural Psychology: Why Do Our Brains Ignore Climate Change

As an **Undergraduate** teacher of **Psychology** in the **Social Sciences** you can use this lesson plan to teach your students aspects of behavioural science, explain why our brains are wired to ignore climate change, and discuss potential behavioural science solutions to the climate crisis.

This lesson plan provides teaching resources that would help your students learn about some **cognitive and psychological factors** that influence an individual's response to climate change. It includes discussions on how the human brain responds most strongly to threats that are direct, visible, and immediate. As the impacts of climate change are rarely such, we tend to have **psychological barriers** that prevent meaningful sustained climate action for the long term. The lesson plan further includes resources to show how behavioural science could provide some solutions to the climate crisis.

Thus, the use of this lesson plan allows you to teach aspects of **Behavioural Psychology** in your **Social Sciences** classroom. This lesson plan can be used as a module in a Behavioral Psychology course or as a topic in Behavioural Psychology in an Introductory Psychology course.

Use this lesson plan to help your students find answers to:

- What is behavioural psychology?
- What cognitive and psychological factors influence responses to climate change?
- What is climate psychology?
- What are some psychological barriers that prevent sustained climate action?
- How can behavioural science provide solutions to the climate crisis?

**About the Lesson Plan** 

**Grade Level:** Undergraduate **Discipline:** Social Sciences, Psychology Topic(s) in Discipline: Behavioural Psychology Climate Topic: Climate and Society, Climate Change and the Anthroposphere, Climate and Health **Location:** Global Access: Online Language(s): English

**Approximate Time Required: 60-120 min** 

# 1 Contents

### 1. Video (~33 min)

A video containing talks to introduce the science of behaviour change hosted by The Royal Institution of Great Britain.

This can be accessed at:

https://www.youtube.com/watch?v=154OttZtQ8w

### 2. Video lecture (~22 min)

A video lecture on the cognition of climate change denial by Prof Stephan Lewandowsky from the University of Western Australia.

This can be accessed at:

https://www.youtube.com/watch?v=QBOt7ecarc0&t=1s

## 3. Video lecture (~55 min)

A video titled 'Why Our Brains are Wired to Ignore Climate Change' by George Marshall at Talks at Google.

This can be accessed at:

https://www.youtube.com/watch?v=726BZat208A&t=1736s

#### 4. Suggested questions/assignments for learning evaluation

- What is behavioural psychology?
- What cognitive and psychological factors influence responses to climate change?
- What is climate psychology?
- What are some psychological barriers that prevent sustained climate action?
- How can behavioural science provide solutions to the climate crisis?

# 2 Step-by-step User Guide

Here is a step-by-step guide to using this lesson plan in the classroom/laboratory. We have suggested these steps as a possible plan of action. You may customize the lesson plan according to your preferences and requirements.

#### 1. Introduction to Science of Behavioural Change

Introduce your students to the lesson plan by providing an overview of behavioural psychology and the science of behavioural change. You may proceed with your own lecture material or can provide your students with the video titled 'The Science of Behaviour Change'. This resource contains three short talks hosted at the Royal Institution. Speakers include:

Prof Susan Michie - Professor of Health Psychology and Director of the Centre for Behaviour Change at UCL.

Nick Chater - researcher, author and editor for the journals Cognitive Science, Psychological Review, and Psychological Science.

Toby Park - Behavioural Insights Team

This resource can be accessed at

https://www.youtube.com/watch?v=154OttZtQ8w

You can use this resource to explain to your students how human beings often do not act in rational ways or do what is best for them. Solutions to critical problems such as climate change may require a behavioural change. This resource can be used to encourage your students to think about how people make decisions. Further, they can understand what interventions may encourage behavioural change that benefit individuals and society.

#### 2. Cognition of Climate Change Denial

Next, introduce your students to the topic of climate psychology. Use the video titled 'Cognition of Climate Change Denial' by Prof Stephan Lewandowsky from the University of Western Australia, hosted by the University of Sydney.

This resource can be accessed at

#### https://www.youtube.com/watch?v=QBOt7ecarc0&t=1s

In this video Prof Lewandowsky discusses "some of the cognitive and psychological variables that determine people's responses to climate science." Emphasize to your students, his findings on people's level of comprehension of climate data and climate science. Further discuss with your students, Prof Lewandowsky's results on how ideology plays a significant role in whether an individual accepts or rejects climate science.

### 3. Climate Psychology: Why Our Brains Ignore Climate Change

Next, discuss with your students what is climate psychology. Use the video titled 'Why Our Brains are Wired to Ignore Climate Change' by George Marshall at Talks at Google.

This resource can be accessed at

#### https://www.youtube.com/watch?v=726BZat208A&t=1736s

In this video, George Marshall discusses how the human brain is wired to ignore the climate crisis even though it is such a critical problem. According to Marshall, the human brain responds most strongly to threats that are direct, visible, immediate, and caused by a defined "enemy". As the impacts of climate change often tend to be less direct and immediate, we tend to have psychological barriers that prevent meaningful sustained climate action for the long term. Emphasize to your students, how Marshall addresses critical questions such as "What is the psychological mechanism that allows us to know something is true but act as if it is not? And how is it possible that when presented with

overwhelming evidence, even the evidence of our own eyes, we can deliberately ignore something while being entirely aware that this is what we are doing?"

Summarize this lecture during your classroom discussion and emphasize the point that behavioural change can provide potential climate change solutions once we better understand human motivational drivers.

#### 4. Questions/Assignments

Use the tools and the concepts learned so far to discuss and determine answers to the following questions:

- What is behavioural psychology?
- What cognitive and psychological factors influence responses to climate change?
- What is climate psychology?
- What are some psychological barriers that prevent sustained climate action?
- How can behavioural science provide solutions to the climate crisis?

# 3 Learning Outcomes

The tools in this lesson plan will enable students to:

- learn about behavioural psychology and climate psychology
- understand cognitive and psychological factors that influence responses to climate change
- understand psychological barriers to climate action
- discuss behavioural science approaches for climate solutions

# 4 Additional Resources

If you or your students would like to explore the topic further, these additional resources will be useful.

1. Reading; 'Psychology & Global Climate Change: Addressing a multifaceted phenomenon and set of challenges'

A Report of the American Psychological Association Task Force on the Interface Between Psychology and Global Climate Change.

Janet Swim, Susan Clayton, Thomas Doherty, Robert Gifford, George Howard, Joseph Reser, Paul Stern, Elke Weber.

- Section 2: What Are the Human Behavioral Contributions to Climate Change and the Psychological and Contextual Drivers of These Contributions? Pages 29-40
- Section 5: Which Psychological Barriers Limit Climate Change Action? Pages 64-69

This can be accessed at:

https://www.apa.org/science/about/publications/climate-change-booklet.pdf

2. Video lecture; "Climate psychology: Why our brains ignore climate change -and what to do about it"

By Per Espen Stoknes and hosted by the Stockholm Environment Institute.

This can be accessed at:

https://www.youtube.com/watch?v=if9LBQm\_yqA&t=34s

3. Video lecture; "Psychological barriers to climate change"

By Caroline Hickman and hosted at TEDxBathUniversity.

This can be accessed at:

https://www.youtube.com/watch?v=5yXDHazepUw

4. Audio; "Speaking of Psychology: The Psychology of Climate Change"

By Susan Clayton and hosted at The American Psychological Association

This can be accessed at:

https://www.apa.org/research/action/speaking-of-psychology/climate-change-impact

# 5 Credits/Copyrights

All the teaching tools in our collated list are owned by the corresponding creators/authors/organizations as listed on their websites. Please view the individual copyright and ownership details for each tool by following the individual links provided. We have selected and analyzed the tools that align with the overall objective of our project and have provided the corresponding links. We do not claim ownership of or responsibility/liability for any of the listed tools.

1. Video; 'The Science of Behaviour Change'

<u>Prof Susan Michie</u>, <u>Nick Chater</u>, and <u>Toby Park</u>. Hosted at <u>The Royal Institute</u> of Great Britain.

2. Video lecture; 'Cognition of Climate Change Denial'

<u>Prof Stephan Lewandowsky</u>, University of Western Australia, hosted by the <u>University of Sydney</u>.

3. Video lecture; 'Why Our Brains are Wired to Ignore Climate Change'

George Marshall at Talks at Google.

## 4. Additional Resources

American Psychological Association (APA)

Per Espen Stoknes, hosted at Stockholm Environment Institute

<u>Caroline Hickman</u>, hosted on <u>TEDxBathUniversity</u>.

Susan Clayton, hosted at APA.