

# Perspectives and biases

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Book: Perspectives and biases

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# Table of contents

Introduction and learning outcomes

Test your logical thinking skills

Perspectives

Bias

Seeing patterns

Quick brain exercise

Anchors and pre-existing beliefs & experience

Learn more about bias

Critical reflection on perspectives and biases

What have I learned?

References and further resources

# Introduction and learning outcomes

This unit focuses on *perspective*, i.e. our particular attitude towards or way of regarding something, and *bias*, i.e. our tendency to be subjective when we weigh a situation or judge something. Our background, our experiences, our unconscious mind may lead us to perceive the same situation differently from others. As critical thinkers, we would like to be as unbiased as possible, which is why, if we want to be fair in judging a situation, we should keep an open mind and learn about as many other people's perspectives about the same issue as possible before we make up our mind what to think and how to act.



## Banksy Pollard Street, East End of London (1)

This unit will help you to recognize different perspectives or point of views speakers or authors may approach a topic from. You will also learn how to identify biases when analyzing information. Having an increased understanding of perspectives and biases, means you will be better able to reflect on your own and others' biases.

# Test your logical thinking skills

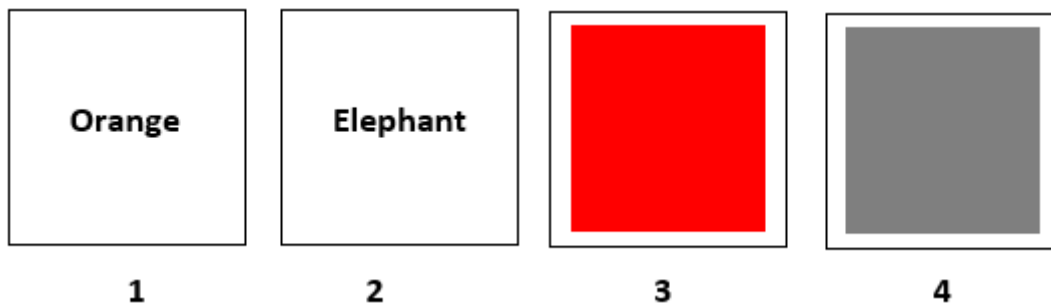


## Practical activity

Here is a famous logic task for you to warm up with. A similar task was formulated in 1966 by the psychologist Peter Wason, who used it as part of an experiment on reasoning (1). Imagine that four cards are lying on the table in front of you. Every card has the name of a fruit or animal printed on one side and the colour red or grey on the other. As they appear in front of you, two cards show the name of a fruit or animal. The other two cards show a colour.

The four cards appear as illustrated below. Your task is to decide if the following rule is true for these four cards:

*If a card has the name of a fruit printed on one side, then it has the colour red on the other side.*

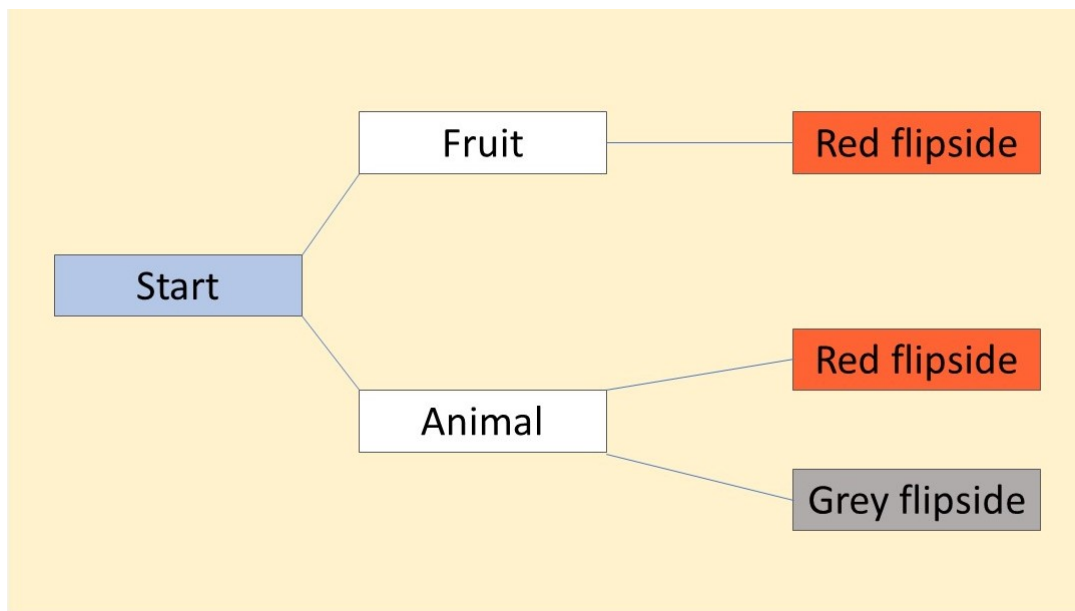


Which card(s) do you need to turn over to find out whether the rule is true or false? Only turn over the minimum number of cards necessary to determine if the rule is true.

**Tip:** To organize your thinking about the correct answer, you may want to revise your learning about conditional statements in Unit 4 and draw a tree diagram for the logic task in this example.

Once you have thought your answer through, you can reveal the comment below and check whether you are right.

The correct answer is cards 1 and 4. Using the tree diagram, you may reason as follows:



Card 1: Orange is a fruit. So the colour of the flipside needs to be red, if the rule is true. Turn the card! If the flipside's colour is not red, you have disproved the rule.

Card 2: Elephant is an animal. The rule doesn't say anything about animals. So don't turn the card, as the flipside's colour won't tell you anything about the truth of the rule.

Card 3: The card is red. So the card could have the name of a fruit on the flipside and the rule would be true. But it could also have the name of an animal on it and the rule would still be true. So don't turn the card.

Card 4: The card is grey. If the name on the other side is a fruit, the rule would be false, since it says that each fruit card is red. So turn the card! If the flipside shows the name of a fruit, you can conclude that the rule is false.

Peter Wason used this task in an experiment and found that only about 10% of individuals tested answered the question correctly. Most participants answered that you need to turn over cards 1 and 3. But our logical thinking resulted in the conclusion that by turning card 3 you don't get any evidence that the rule is true or false, whereas by turning card 4 you have the chance to disprove the rule, if there is the name of a fruit on the flipside.

Peter Wason concluded that the participants' confirmation bias could have been the possible reason why most participants chose cards which confirmed their hypothesis rather than paying the same attention to eliminating it.

You will learn more about the confirmation bias later in this module.

# Perspectives

'Perspective' is defined as a particular attitude towards or way of regarding something, in other words, a point of view. As we look at something or someone, or watch a process or phenomenon unfold, we may see and interpret it differently from others because of where we stand and where we come from. Our usual way of doing things influences how we perceive new issues.



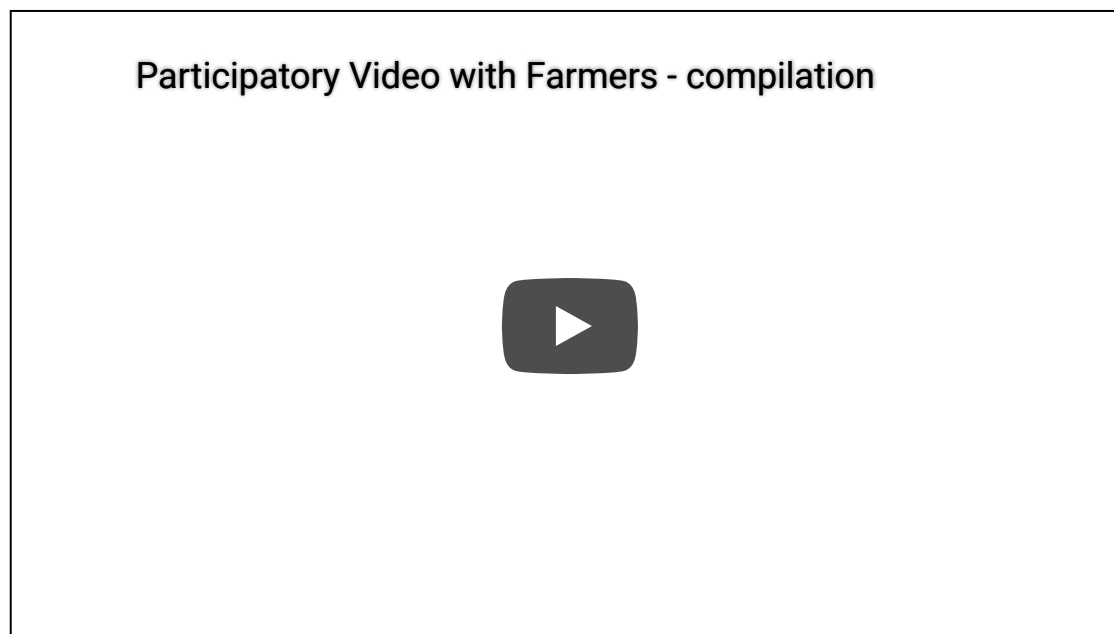
## Exploratory activity

Watch the video below (duration approx. 14 min) which explores issues affecting the environment and farmers' adaptation strategies to cope with the effects of global climate change. Then answer the questions below.

*The compilation was produced by farming communities across Sub-Saharan Africa. The programme which led to its production was implemented by InsightShare in association with five UK-based development agencies and numerous community-based organisations and local NGOs.*

### Questions:

- What different perspectives or major concerns of the speakers can you identify? Which perspective(s) do you sympathize with the most, and why?
- What do people argue or advocate for? Which argument(s) stand out for you as the most convincing? Why do you find those arguments most convincing?



### Video 'Participatory Video with Farmers - compilation' (1)

Once you have thought through your answers and made notes, read the comments below. Are your answers similar to the comments, or did you perceive the issues quite differently?

**a. Speakers were concerned about:**

- Changes that have occurred in the weather (heat, drought, flooding)
- The destruction of the environment
- Going a long way to find drinking water
- The state of crops (despite having used fertilizers)
- Making space for crops
- Making a livelihood and providing for their families
- Making money to pay for their children's education

**b. Speakers argue or advocate for:**

- Diversifying crops and income sources
- Working together and discussing the cause of the changes in the environment, as well as solutions
- Sustainable farming (e.g. using manure instead of fertilizers)
- Planting artificial forests
- Taking care of the environment
- Listening to the elderly
- Adjusting and adapting to nature
- Preventing the negative effects of climate change to save the future

# Bias

A bias is a genuine limitation in our thinking. It is not intended fallacious thinking, but rather a flaw in judgement that arises from our tendency to be subjective, from errors of memory, from too much information, from limited understanding, from our need to decide or act quickly, etc. Biases may lead to poor choices, as well as false beliefs and unfounded expectations.

Biases draw us to details that confirm our existing beliefs rather than looking for information that disprove our beliefs. It also makes us look for patterns even when being exposed to sparse unrelated data.



## Energizer

### Can you spot an image?

Look for 20 seconds at the picture below. Can you spot any shapes, figures or things?



Now reveal the comment!

Reveal

Hide

One of our content development team saw a woman looking up to the sky in the middle of the clouds. But you may have seen something totally different. Some people even 'read' messages when looking at the sky. This phenomenon of seeing familiar shapes and objects in a vague and often random input is the result of your brain trying to make sense of your environment even in situations in which there is no sense to find. This phenomenon is also called 'Pareidolia'.

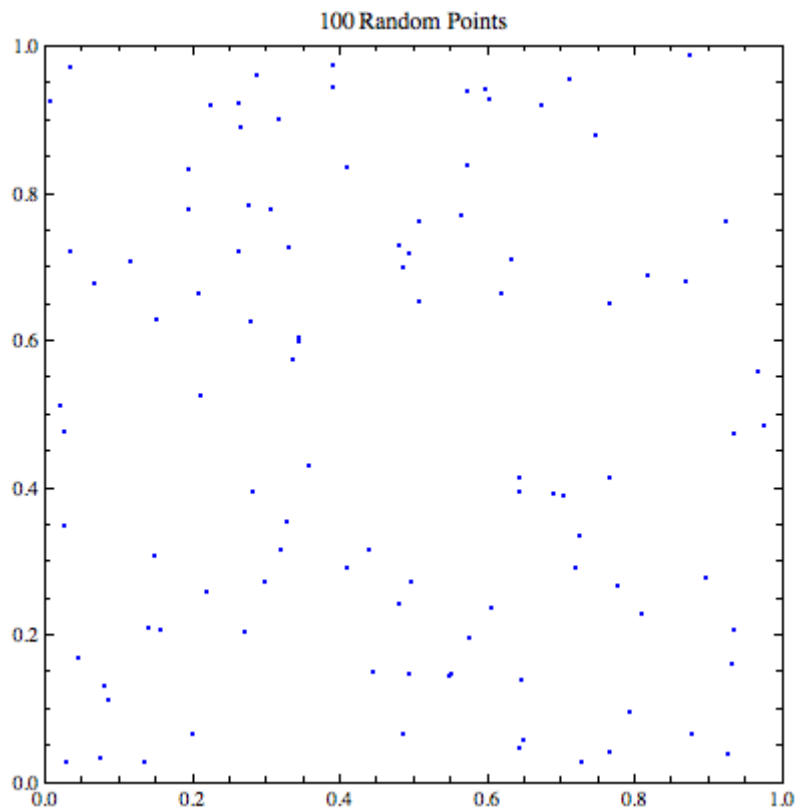
By the way, if you have just seen clouds that's of course totally normal too. There is a wide range of sensitivity to this phenomenon.



## Seeing patterns

In a very similar way to how your brain made sense of the clouds in the picture above, researchers may also see patterns in data collections that may only be random sequences of numbers or events. This tendency to recognize accumulations or clusters in random distributions is called a **clustering illusion**.

The picture below shows randomly generated points. However, you may recognize changing clusters of points appearing.



**GIF 'RandomPoints' (1)**

Also, take the popular saying "good things come in threes", which is really a superstition feeding on our **selective perception**. The reasonable explanation for it is that when we are looking for the good things, we will find them, and three being a 'magical' number, we will look until we find at least three in a row. In fact, how many times are we likely to have experienced good things that have come in more than three in a row or perhaps fewer? However, telling the story of three good things happening to us is much more interesting than telling the story of just one or two, and also such a story is much more likely to stick in our mind than a less spectacular one.

# Quick brain exercise



## Energizer



**Political map of South America (1)**

Let's have another short brain energizer to keep you focused. Answer quickly the following questions. It's not meant as a test of your knowledge about countries and population numbers, and you will learn more if you don't look the numbers up. So please just guess and jot down your answers with pen and paper.

### Question 1

*What's the total population of Peru?*

Select one answer option:

a) *Higher than 30 million*

Question 2

*Guess what the total population of Peru is. Estimate the number and jot it down, without researching it beforehand!*

Question 3

*Which continent is Peru in?*

Select one answer option:

- a) *Africa*
- b) *Europe*
- c) *North America*
- d) *South America*

Question 4

*What's the total population of Colombia?*

Select one answer option:

- a) *Higher than 30 million*
- b) *Lower than 30 million*

Question 5

*Guess what the total population of Colombia is. Estimate the number and jot it down, without researching it beforehand!*

Now look up the total population of Peru and Colombia! For example on this page. For which country was your guess most accurate?

## Anchors and pre-existing beliefs & experience

In the exercise on the previous page, which country population did you guess better? If for both countries your guess was around 30 million, the number which had been given to you as an anchor, you have just followed another common human behaviour. This one is called **anchoring bias**.

Anchoring often leads to poor decisions when estimating something such as the worth of an item you want to purchase.

For instance, let's say the price tag says \$1,000. You may be tempted to pay \$800 for it, but think that \$1,000 is too much. Now if you walk down the street and find another place where the same product goes for 800, you probably won't spend too much time wondering if it is worth the money; you will buy it. However, you may be disappointed to find out that if you had started shopping from the other end of the street you may have found the same item going for 600. Except then you would have been tempted to think that it was only worth about 500 or so.

So anchoring occurs when individuals use the initially provided information to make subsequent judgements; the first piece of information offered (the 'anchor') affects us when making a decision. This is an often-used tactic in bargaining.

**Confirmation bias** is the tendency to search for, interpret, favour, and recall information in a way that confirms one's pre-existing beliefs or hypotheses, while giving disproportionately less consideration to alternative possibilities. Do you remember the Peter Wason experiment earlier, where people (and maybe you too) tended to pick cards which confirmed their hypothesis instead of disproving it?

Similarly, in research, the **expectancy bias** is a form of reactivity in which a researcher's cognitive bias – being drawn to details that confirm their existing beliefs – causes them to subconsciously influence the participants of an experiment. Also, the so-called **experimenter's bias** is the tendency of experimenters to believe, certify, and publish data that agree with their expectations for the outcome of an experiment, and to disbelieve, discard, or downgrade the corresponding weightings for data that appear to conflict with those expectations.



Cartoon from Crimes Against Hugh's Manatees by Hugh D. Crawford (1)

The term **cultural bias** refers to interpreting and judging phenomena by standards inherent to one's own culture. The phenomenon is sometimes considered a problem central to social and human sciences, such as economics, psychology, anthropology, and sociology. **Prejudice** and **stereotyping** are examples of this type of bias.

2/4/2019 Prejudice involves judging someone or a group of people before you meet them, usually relying on stereotypes, which refers to judging a group of people different from you based on your own or others' opinions formed as a result of limited encounters with too few people from that group.

It is important to remember that bias is mostly unconscious; it even includes our wrongly thinking that we are less biased than others. Whether we like it or not, bias influences our decisions and behaviour. What we can do to limit its effect is to keep an open mind, search for and consider diverse perspectives respectfully, and weigh them all carefully before making an important judgment or decision.


## Learn more about bias



### Optional activity 1

Listen to this interview (duration approx. 30 min) with Tom Gilovich, a professor of psychology at Cornell University, and make notes on the biases he mentions. Keep in mind the description of the biases in the above reading to identify the ones mentioned by the speaker.

Episode 8 – Extraordinary Claims: Uncut conversation with ...



Video 'Episode 8 – Extraordinary Claims: Uncut conversation with Tom Gilovich' (1)

Now reveal the biases mentioned in the video.

Reveal

Hide

clustering illusion; confirmation bias; selective perception; self-serving claim; selection bias



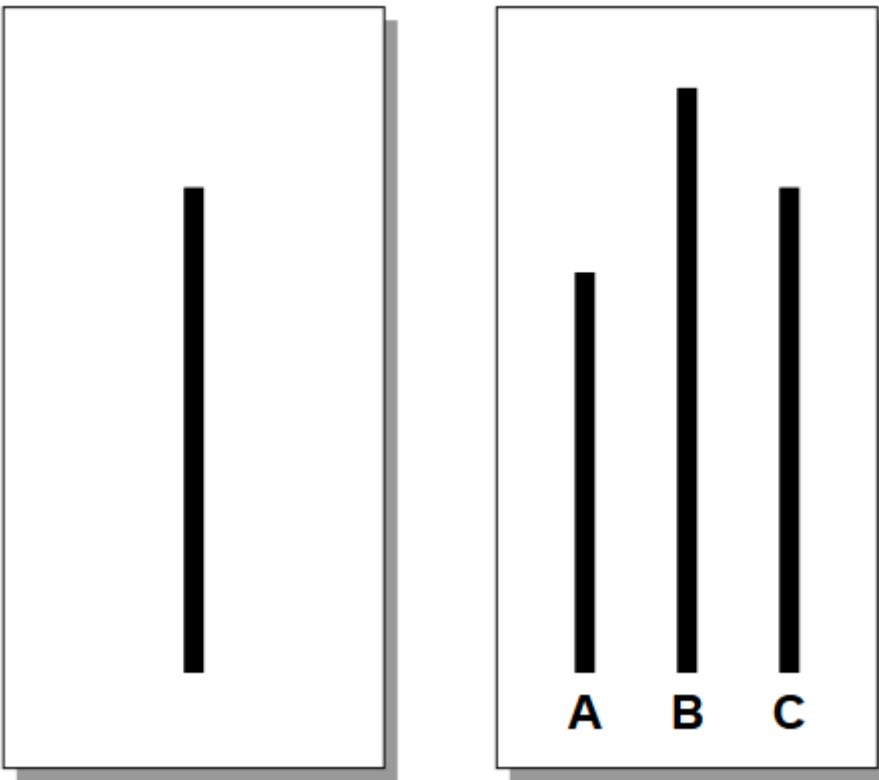
### Optional activity 2

*Read this text about conformity bias, which is our tendency to behave similarly to the others in a group, even if doing so goes against our own judgement.*

The **Asch conformity experiments** refer to a series of studies directed by Solomon Asch studying if and how individuals yielded to or defied a majority group and the effect of such influences on beliefs and opinions. Asch conducted his first conformity laboratory experiments at Swarthmore College, PA, USA, in 1951, laying the foundation for his later conformity studies.

In this experiment, groups of eight male college students participated in a simple 'perceptual' task. In reality, all but one of the participants were 'actors' - something the one test individual (the 'subject') did not know. The true focus of the study was about how the subject would react to the actors' behaviour. The actors knew the true aim of the experiment, but were introduced to the subject as other participants.

Each participant viewed a card with a line on it, followed by another with three lines labelled "A", "B", and "C" (see figure).



One of these lines was the same as that on the first card, and the other two lines were clearly longer or shorter. One would expect a near-100% rate of correct responding for such a simple task.

Each participant was then asked to say aloud which line matched the length of that on the first card. Prior to the experiment, all actors were given specific instructions on how they should respond in each trial. They would always unanimously call the same line, but on some trials they would give the correct response and on others an incorrect response. The group was seated such that the subject always responded last.

Each subject completed 18 trials. On the first two trials, both the subject and the actors gave the obvious, correct answer. On the third trial, the actors would all give the same wrong answer. This wrong-responding recurred on 11 of the remaining 15 trials. It was the subjects' behaviour on these 12 'critical trials' that formed the aim of the study: to test how many subjects would change their answer to conform to those of the seven actors, despite it being wrong. Asch expected that the majority of people would not conform to something clearly wrong, but the results showed that as many as 75% conformed at least once, and 5% conformed every time. In the control group, with no pressure to conform to fellow participants, less than 1% of participants gave the wrong answer.

Subjects were interviewed after the study including being debriefed about the true purpose of the study. These post-test interviews shed valuable light on the study: both because they revealed subjects often were "just going along" and because they revealed to Asch considerable individual differences.

Note that Asch used a biased sample in this experiment – all subjects were male, belonging to the same age group. In addition, one needs to keep in mind the political context of the time when the experiment was conducted: the 1950s, during which the US was highly conservative, with people holding left-wing views being accused of being communist and put on trial.



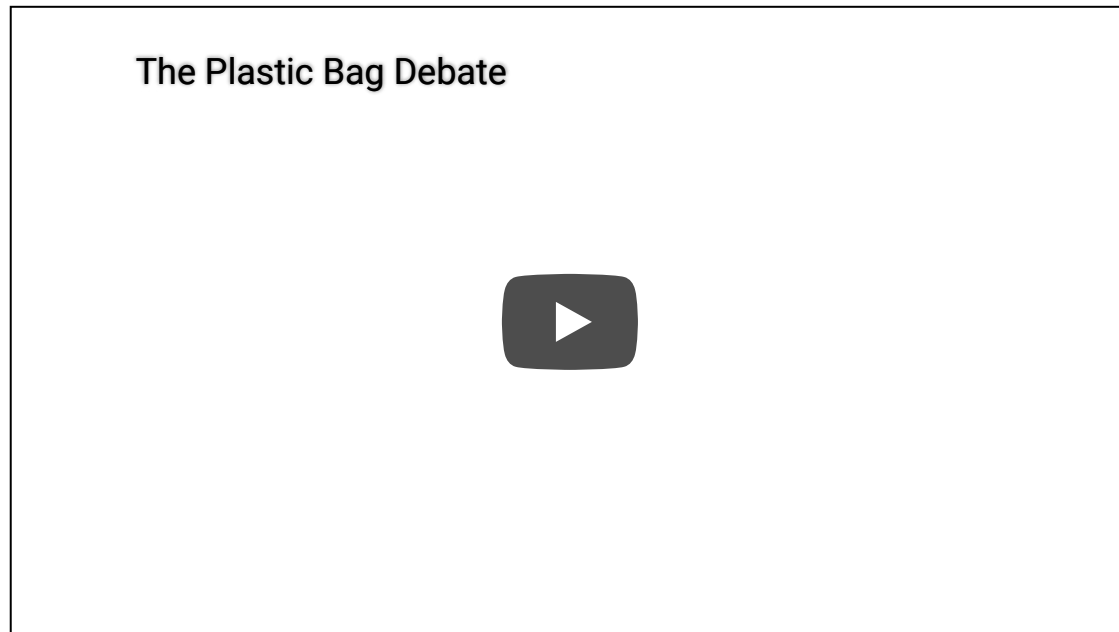
# Critical reflection on perspectives and biases



## Exploratory activity

Recall what you have learned in this unit about perspectives and biases.

Now watch this short video (duration approx. 7 min) where two members of a town council express their views about reducing the use of plastic bags in their community. While watching the video, reflect on the questions you have been given below. Make notes!



Video 'The Plastic Bag Debate' (1)

Search for answers to the following questions and make notes.

1. What do the speakers tell us about themselves? Knowing the speakers' backgrounds can tell you a lot about which perspectives they are coming from. Personal background can also lead to individual biases.
2. Which group of people do the speakers belong to or are important to them? The group they belong to may have a particular interest. Considering those allegiances will help understand what the person believes about the issue and what they assume is true.
3. What arguments do the speakers express? Are there any premises which would need to be verified in order to be able to judge whether the arguments are strong or weak? Campaigners often present information so that it seems to favour them and their positions. People in a community may say things that are not necessarily true.
4. Will anyone benefit or lose if the speakers' arguments are accepted or rejected? To whose advantage is it if the information is taken at face value?
5. Is the information complete? What does it not speak about? What else would people need to know?
6. Has one of the speakers expressed a view or idea that is close to your own thinking? Do you think you could be biased when deciding how strong or weak the speakers' argumentation is?

Once you have answered the questions and made your notes, reveal the comments below.

Reveal

Hide

### 1. The speakers' background

The first speaker is the reporter leading into the topic. She doesn't talk about herself but tries to be objective by introducing both sides and not revealing any personal position she may have. The speakers who argue about their point of view are town officials – Councilman Greg Miles and Mayor Mark Barron. The reporter explains that Greg wants to ban or tax plastic bags, whereas Mark doesn't think that is something the town council should put its energy into.

Greg introduces himself by saying he has travelled quite a lot in the world and that he has seen the impact of plastic bags himself. Does this make him trustworthy in your eyes?

Mark doesn't speak about himself. So we only know that he is the mayor of the town. But he starts to point out that the council has put in place actions related to environmental issues. What kind of impression does he likely want to give about himself by doing that?

## **2. The speakers' social affiliation**

Greg expresses a global view when talking about his observations in African and Latin American countries but also his home country, the United States. Having travelled the world, he seems to observe his own home community more from the outside when he explains how he perceives the shopping behaviour of his fellow citizens. Coming from a global view, he wants to change the goals of his town towards environmental sustainability. Do you think his global view makes a difference when speaking and acting as a council representative in the interest of the town citizens?

Mark is much more focussed on the town he leads as its mayor. He gives the impression that he wants to speak on behalf and in the interest of the town citizens. Do you think he therefore necessarily speaks on behalf of all citizens in the town and represents their opinions?

## **3. The speakers' argumentation**

Greg speaks about the effects of plastic bags on the oceans and the environment, and the impacts on communities all over the world, but doesn't actually explain further what the impact and effects are. The pictures, which for example show piles of plastic bags lying around, give an indication. Do you think one would need to know more about the impact in order to make a well-informed decision on a plastic bag ban/tax? Did you understand clearly what he meant when he said we want to be sustainable and when he mentioned eco-tourism?

Mark says that the plastic bag issue has much media attention but he cannot see a meaningful effect. Would this statement help you in any way with the decision on whether a plastic bag ban or tax should be introduced? Or does it remind you of the irrelevant reason fallacy you learned about in Module 4? He also mentions that paper bags leave a bigger "footprint in our waste stream" than plastic bags. Did you fully understand what he means? Did he give any evidence?

What are the reasons why some people like Greg want plastic bags to be charged? Do you expect the charge would change any behaviour and that this could lead to the sort of 'meaningful effect' Mark cannot see?

## **4. Gains and losses**

Mark says that the bag tax would affect in particular the poorest people in the community. Do you think such a charge would mean that the people in the community pay more in the end, or would they try to avoid the costs? You could try to imagine what you would do if you needed to pay an additional charge for a plastic bag.

Who would lose in the end if less plastic bags are used because people want to avoid additional charges and instead re-use bags? Who would benefit?

Mark says the community has limited resources. Has the debate informed you what resources such an initiative would require?

## **5. Additional information needs**

Before making the decision on whether plastic bags should be banned or taxed, some other information would be useful. For example, how will the money that will be raised through the charges be used? What are the pros and cons of a total ban of non-reusable bags compared to a tax approach? Are there any other alternatives for lowering the use of plastic bags? What else would you like to know?

## **6. Own point of view and bias**

The author of these comments has also travelled quite a lot and has lived in several communities in Europe and Africa. During a holiday, she went to a Greek bay which looked lovely from far away but coming closer she saw that loads of plastic bags were swimming in the water close to the beach. Her holiday feeling was quite spoilt by this view. The author is aware that her own background and life experience seems to be more similar to Greg's than Mark's and that this may lead to a bias.

Her home country has introduced a charge for plastic bags and the media reported the charge resulted in a considerable decline of plastic bag consumption. Do you think the findings in one country mean such an approach will lead to the same result in any other country or community?

When reading these comments, did you see any indicators of what the author's own point of view is? Do you agree with most comments or is your point of view quite different?

# What have I learned?



## Reflective activity

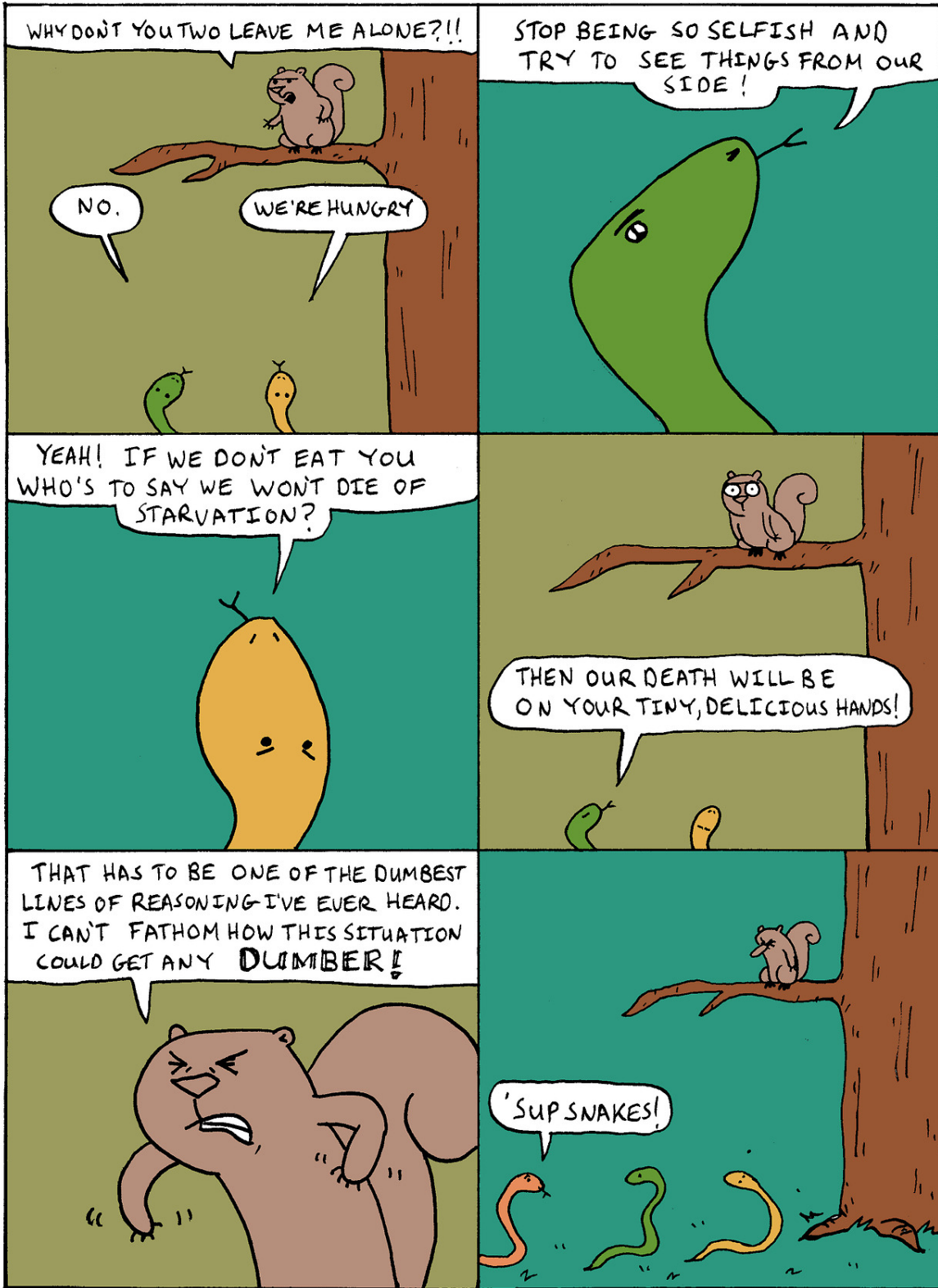
Reflect on your learning in this unit so far. Go over all your notes in this unit, and then answer the questions below:

- Are you now able to recognize different perspectives and identify some biases you or someone else may have in regard to an issue in discussion?
- How did you find the tasks in this unit: too easy, too challenging, or just right? Which one was the most challenging?
- What are the three most important things you now know and which you did not know at the beginning of this unit?
- How do you expect your new learning to impact your future response to information you read or hear?



Note your thoughts down. Post your ideas in the discussion forum if you'd like to share them with your fellow students.

CRIMES AGAINST HUGH'S MANATEES



Comic from Crimes Against Hugh's Manatees by Hugh D. Crawford (1)

# References and further resources

## References by course pages

### Introduction and learning outcomes

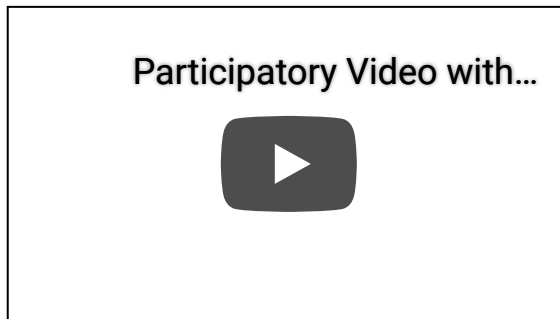
1. Photo 'Banksy Pollard Street, East End of London' by Paolo Redwings, [https://de.wikipedia.org/wiki/Banksy#/media/File:Banksy\\_Pollard\\_Street.jpg](https://de.wikipedia.org/wiki/Banksy#/media/File:Banksy_Pollard_Street.jpg), licensed under CC BY 2.0, retrieved 16 March 2018

### Test your logical thinking skills

1. 'Wason selection task', [https://en.wikipedia.org/wiki/Wason\\_selection\\_task](https://en.wikipedia.org/wiki/Wason_selection_task), accessed 12 January 2018

### Perspectives

1. 'Participatory Video with Farmers - Compilation' by InsightShare (2013), licensed under Creative Commons Attribution license (reuse allowed), retrieved 30 January 2018



### Seeing patterns

1. GIF 'RandomPoints' by CaitlinJo (2013), <https://commons.wikimedia.org/wiki/File:RandomPoints.gif>, licensed under CC BY 3.0, retrieved 16 March 2018

### Quick brain exercise

1. Image 'Political map of South America' by Yug (2010), this is a retouched picture which means that it has been digitally altered from its original version, [https://commons.wikimedia.org/wiki/File:South\\_America-en.svg](https://commons.wikimedia.org/wiki/File:South_America-en.svg), licensed under CC BY-SA 3.0, retrieved 16 March 2018

### Anchors and pre-existing beliefs & experience

1. Comic from Crimes Against Hugh's Manatees by Hugh D. Crawford, <http://crimesagainsthughsmatees.tumblr.com/image/158616111767>, licensed under CC BY-NC-ND 3.0, retrieved 16 March 2018

### Learn more about bias

1. Video 'Episode 8 – Extraordinary Claims: Uncut conversation with Tom Gilovich' by Think101 (2014), licensed under Creative Commons Attribution license (reuse allowed), retrieved 30 January 2018

## Episode 8 – Extraordina...



### **Critical reflection on perspectives and biases**

1. Video 'The Plastic Bag Debate' by TheJHVoice (2012), licensed under Creative Commons Attribution license (reuse allowed), retrieved 30 January 2018

## The Plastic Bag Debate



### **What have I learned?**

1. Comic from Crimes Against Hugh's Manatees by Hugh D. Crawford, <http://crimesagainsthughsmantees.tumblr.com/image/157466293247>, licensed under CC BY-NC-ND 3.0, retrieved 16 March 2018

### Further resources

McLeod, S. A. (2008). 'Asch experiment', [www.simplypsychology.org/asch-conformity.html](http://www.simplypsychology.org/asch-conformity.html), accessed 12 January 2018

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