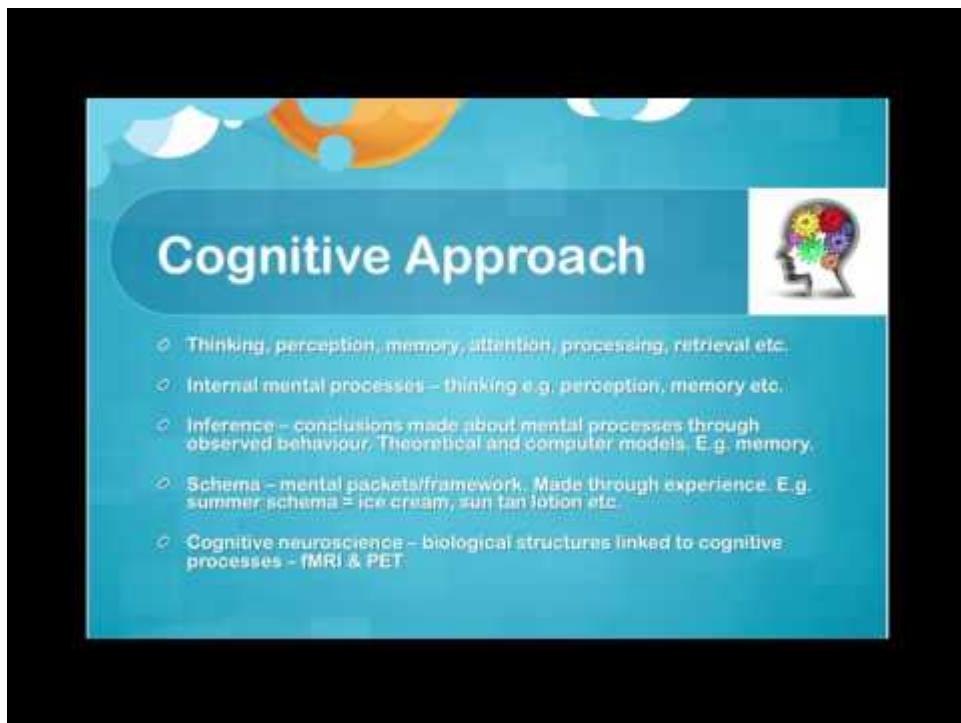


A Level Psychology - Fifth to Sixth Transition: Week 4

The Cognitive Approach

Step 1: Discover



Watch the YouTube video above and answer the following questions:

- 1) What do cognitive psychologists focus on/try to study?
- 2) Who are cognitive psychologists very different from?
- 3) Why do cognitive psychologists need to make inferences?
- 4) How is the brain like a computer?

5) What is a schema? Can you give an example?

6) What kind of methods do cognitive psychologists use to study the mind?

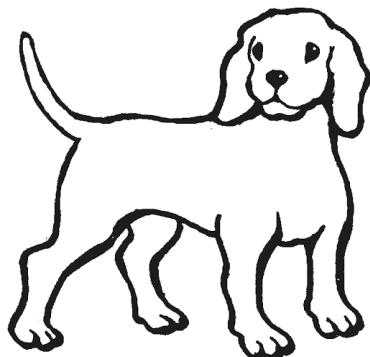
Step 2: Apply

Schemas:

Task 1: Write down all the words that come to mind when you see this picture:



The picture has activated your schema for ‘the beach’ which is built from your past experiences of going to the beach, films or videos you may have seen of the beach, stories other people may have told you. Schemas are mental frameworks of ideas which help us interpret the world. Your schema gives you a set of expectations about the beach and so when it is activated, you think of all the words you have written above.



Task 2: You haven’t seen this particular drawing of a dog before yet you can recognise it as a dog. Explain how schemas have helped you to do this.

Step 1: Discover

Memory

Choose 1 of the options below to complete. Do not complete both.

Option A: Context-dependent forgetting.

In Psychology there are lots of theories about how we remember things, but there are also theories about how we *forget* things. One of these theories is called **retrieval failure** and is the idea that the same cues (triggers) need to present when you learn something and when you try to recall it. These are called retrieval cues.

Retrieval cues may be based on context - the setting or situation in which information is encoded/learned and recalled. For example, you might study for a test in the same classroom which you'll take the test in. As the learning and recall occurred in the same context (environment), you should do better in the test than if you learned the information at home because the context at home is very different.

Context also refers to the way information is presented. For example, words may be printed, spoken or they may be presented in meaningful groups (e.g. a list of animals) or as a random collection without any link between them. Evidence indicates that retrieval of information is more likely when the context at learning matches the context at recall.

You may have experienced the effect of context on memory if you have ever visited a place where you once lived (or an old school). Often such a visit helps people recall lots of experiences about the time they spent there which they did not realize were stored in their memory.

Task: Find out about the deep sea diving study by Godden and Baddeley (1975). Summarise their findings below using the headings.

Aim:

Procedure:

Findings:

Conclusion:

Option B: Leading questions.

Leading questions are questions that are worded to suggest a particular answer is desirable. For example, if you say 'did you see the broken glass?' it implies that there was broken glass and therefore the witness is more likely to say 'yes'.

As part of cognitive psychology, scientists have been studying whether asking leading questions can change a person's memory of an event. This is extremely important because in eye-witness testimony people are asked to recall what they saw happen if they witnessed a crime. If leading questions can change a person's memory, then this could lead to inaccurate recall of information which has implications for the conviction of criminals.

Below is a famous study that was conducted to find out if leading questions affect a person's memory:

Loftus and Palmer (1974) investigated the effect of leading questions on the accuracy of eyewitness testimony.

Their sample consisted of 45 American students, who were divided into five groups of nine. All of the participants watched a video of a car crash and were then asked a specific question about the speed of the cars. Loftus and Palmer manipulated the verb used in the question, for example:

One group was asked: 'How fast were the cars going when they contacted each other?'

Another group was asked: 'How fast were the cars going when they smashed into each other?'

They repeated this with three other groups changing the verbs to also use *collided*, *bumped* and *hit*.

They found that the estimated speed was affected by the verb used. For example, participants who were given the verb *smashed* reported an average speed of 40.5 mph, where participants who were given the word *contacted* reported an average speed of 31.8 mph, an overall difference of 8.7 mph.

According to these findings, does it seem like leading questions affect eyewitness testimony? Why (use data to back up your justification)?



Step 2: Apply

Memory

Decide whether you are going to complete a task based on option A or B having read the information above. Once you have decided, complete the option that corresponds to the Discover option you chose above.

Option A: Context-dependent forgetting.

You are going to conduct your own experiment into context-dependent forgetting. Below is a list of 10 words. Ask someone in your house to take part in your experiment (it'll only take a few minutes). You'll need at least 1 participant, but if you can get more than that that would be brilliant. They will need to take part one at a time.

The Experiment

Choose a room in your house for them to learn the words in, we'll call this Room A. Choose a second room in your house for them to recall the words in, we'll call this Room B.

Read the words below out loud, one by one to your participant in Room A. Once you have read the words, wait 2 minutes then ask your participant to recall the list out loud back to you. This is condition 1. You need to write down how many words they remembered correctly in the table below.

List 1 – Read and recall in Room A

Chocolate

Pillow

Candle

Jog

Thief

Plug

Hot

Year

Ocean

Jelly

Now read your participant the second list of words still in Room A. However, move into Room B with your participant before you ask them to recall the list. This is condition 2. Make sure you wait two minutes between reading the list and asking them to recall the list. Write down how many words they remembered correctly in the table below.

List 2 – Read in Room A and recall in Room B

Juggle

Alarm

Cheap

Toothpaste

Knee

Salt

Duck

Scale

Fence

Copper

Participant number	Score /10 for condition 1	Score /10 for condition 2
1		

If you can repeat this experiment with more than one person then that would be great! Find the average of all your participant scores in condition 1 and then the average scores in condition 2.

Answer the following questions:

1. Was there a difference between the scores in condition 1 and condition 2?
 2. Do you think context affected your participant's memory? Justify your answer – do not just write yes or no.
 3. Godden and Baddeley's experiment suggests that learning and recall are better when they are in the same context. This finding could be used in education to help students sitting exams. Can you think of another real life situation where this finding could be used?

4. If you were to repeat this experiment, what things would you change?

Option B: Leading questions.

You are going to conduct your own experiment into the effect of leading questions. Below is a link to a YouTube video. Ask someone in your house to take part in your experiment (it'll only take a few minutes). You'll need at least 1 participant, but as many as you like can take part (one at a time).

The first thing you're going to do is tell your participant that they are going to be watching a video and then asked some questions to test their memory.

Then show them the YouTube clip below.

Only play up until 1:40! We are not doing 'stage 2' which is in the video



Once they have seen the clip, you are going to ask them the following questions (the leading questions are in bold so you can tell, but don't tell them that!) Write down their answers and only tell them the correct answers at the end of the study.

- 1) **What gender was the person who stole the red bag?**

Participant answer:

Answer: the bag was actually black

- 2) What hairstyle did the lady in the long fur coat have?

Participant answer:

Answer: short, blonde bob (something like this)

- 3) What injury did the man in the hood pretend to have?

Participant answer:

Answer: it was not the man in the hood with the injury

- 4) What did one of the men offer the woman at the end of the clip?

Participant answer:

Answer: his phone to call the police

Answer the following questions:

- 1) What was the participant's score out of 4?

- 2) Did the leading questions affect the accuracy of their recall?

- 3) If you could write your own leading question to affect someone's memory after watching this video, what would it be?

- 4) Do you think based on your learning about eye-witness testimony so far that the court system should rely solely on eyewitness testimony? Explain your answer, do not just write yes or no.

Step 3: Check

Both options complete the same check task:

Task: Create a summary poster of your learning from the tasks above. It must be at least A4 in size and have a minimum of 150 words, it can be drawn or completed on the computer.

You must create your poster as though you will be giving it to someone in the class who completed a different option to you. For example, if you learned about context-dependent forgetting then your poster will be sent to someone who learned about leading questions and vice versa. So you need to assume the person reading it doesn't know anything about context-dependent forgetting/leading questions.

It must include:

- A brief summary of what the cognitive approach is
- What you have learned about memory or forgetting
- A summary of the study you learned about
- Information about the study *you* conducted and your results
- Your answers to the four questions at the end of the 'Apply' step.