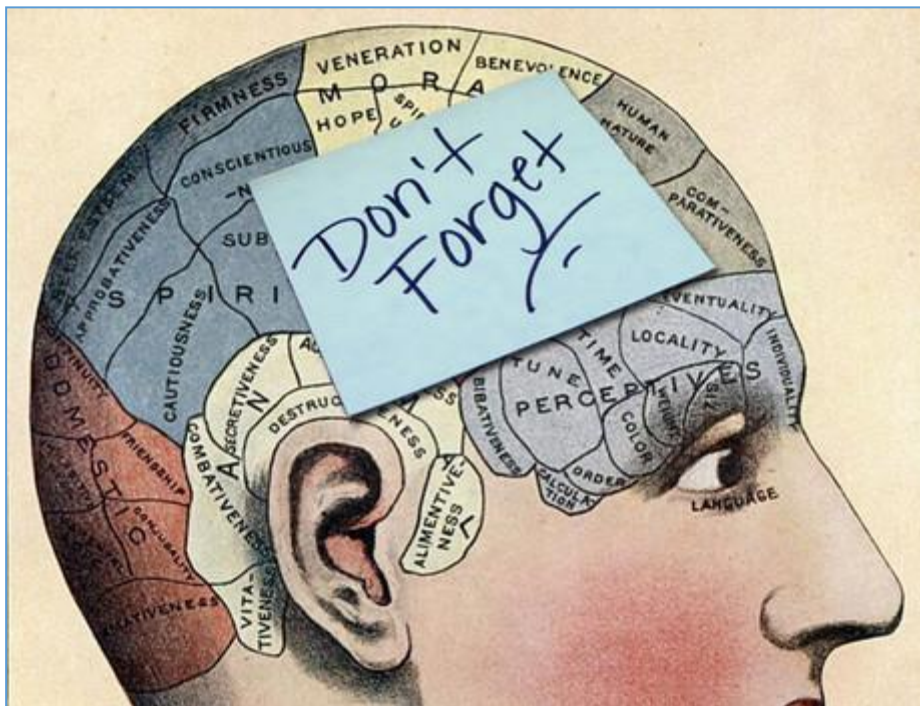


UNIT 1: Memory

GCSE Psychology

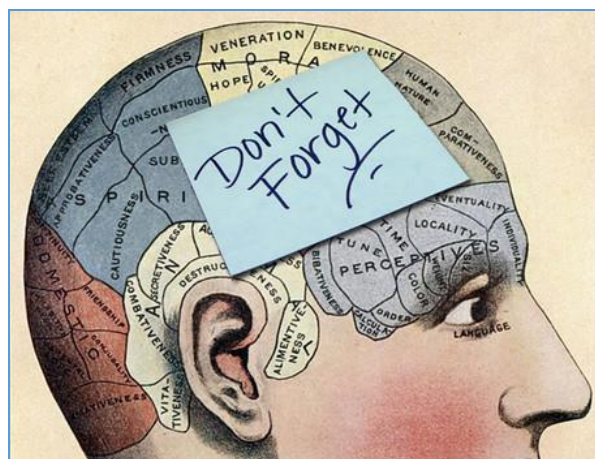


Name:

Form:

What do I need to know for the exam?

Content	Additional information
Processes of memory: encoding (input) storage and retrieval (output)	<ul style="list-style-type: none"> • Different types of memory: episodic memory, semantic memory and procedural memory. • How memories are encoded and stored.
Structures of memory	<ul style="list-style-type: none"> • The multi-store model of memory: sensory, short term and long term. • Features of each store: coding, capacity, duration. • Primacy and recency effects in recall: the effects of serial position. • Murdock's serial position curve study.
Memory as an active process	<ul style="list-style-type: none"> • The Theory of Reconstructive Memory, including the concept of 'effort after meaning'. • Bartlett's War of the Ghosts study. • Factors affecting the accuracy of memory, including interference, context and false memories.



Research Methods – what do I need to know?

<https://www.tutor2u.net/psychology/reference/research-methods-key-term-glossary>

Content	Done
Writing a hypothesis	
Identifying the independent variable (IV)	
Identifying the dependent variable (DV)	
Identifying the experimental design: <ul style="list-style-type: none"> • independent measures • matched pairs • repeated measures 	
Advantages and disadvantages of experimental designs	
Identifying an extraneous variable	
Identifying the sampling method used: <ul style="list-style-type: none"> • random • opportunity • systematic • stratified 	
Reading a results table	
Identifying an anomalous result and being able to comment on its effect	
Identifying the range	
Advantages/disadvantages of the experimental method	
Ethical issues: <ul style="list-style-type: none"> • consent • debrief • confidentiality • deception • right of withdrawal • protection of participants 	



Memory - key terms. You will know some of these and you will need to use the internet to find out the correct definitions for the others. Use <https://www.tutor2u.net/psychology/reference/psychology-memory-glossary>

Key term	Definition/explanation
encoding	
storage	
retrieval	
sensory memory	
short term memory (STM)	
long term memory (LTM)	
episodic memory	
semantic memory	
procedural memory	
duration	
capacity	

multi-store model	
chunking	
recency effect	
primacy effect	
serial position effect	
reconstructive memory	
serial reproduction	
interference	

Introduction - Ask yourself:

1. Write down how you have used your memory in the last 30 minutes
2. What would life be like if you lost your memory?



Memory is an example of a *cognitive* process

Cognition means 'knowing' or thinking process.

Life would be very difficult if we did not have a memory. You wouldn't be able to get to college, dress yourself or even recognise yourself in the mirror. We take memory for granted. We probably are not even aware of the process that occurs for us to be able to receive, interpret, store and access information in order for us to make sense of the world around us.

Memory involves *three* processes: putting information into your brain, storing it there and retrieving it again.

The processes of encoding storage and retrieval

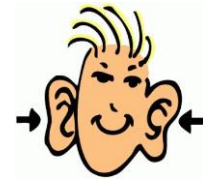
Memory involves *three* processes - write a brief definition of the stages below.

Encoding:

Storage:

Retrieval

Different types of encoding



Encoding



You can retrieve information in several ways:



- **Recognition** – for example, doing multiple choice questions, you are given four possible answers and you have to decide which one is the right answer. Or seeing someone and being able to identify who they are (this is different from trying to recall *what* someone looks like)
- **Cued recall** – you try to remember a piece of information...it's on the tip of your tongue...and then someone gives you a clue or cue (e.g. it begins with the letter 'B') and then you remember it
- **Free recall** is when you retrieve information at will without cues





Research Methods

Read the item below then answer the questions that follow:

A psychology teacher believed that students performed better on recognition tasks than free recall tasks. She conducted a study on memory to see which method of remembering was more effective – recognition or recall.

In the recall condition, 10 participants studied a list of 20 words. The list was removed and the participants wrote down as many words as they could remember.

In the recognition condition, 10 different participants studied the same list of words. After this was removed, they were given a list of 100 words which included the 20 they had seen previously. They had to select the words they recognised.

What is the independent variable? (What are you changing?)

What is the dependant variable? (What are you measuring?)

Write a hypothesis (remember to include both the IV and the DV)

Name two ethical issues that the psychologist should consider



The way the participants are organised in an experiment is referred to as the experimental design

Look at the information below and identify the experimental design that was used in the study

Type of experimental design	Explanation	Example
Independent Groups	Different participants take part in each 'condition' of the study	One group learns a word list in silence and the other group learns the same word list listening to music
Repeated Measures	One group of the same participants take part in two different conditions,	One group of participants learns a word list in silence and then the same group of participants learn a word list listening to music and then their scores on a recall test are compared
Matched Pairs	Participants are matched (e.g. two students with similar scores on earlier tests) and one takes part in each condition	

This study is not named in the specification and therefore you cannot be asked questions specifically about this study. However, you can use the study as a means of answering such questions as 'Describe and evaluate one study that has investigated how memories are encoded'. [9 marks]

A study of encoding

Psychologists distinguish between short-term memories (STMs) and long-term memories (LTM) – sometimes we store information but only rather briefly; for example, if you are phoning someone up you remember their phone number while dialling it but then the number is forgotten. This is an example of short-term memories.

Long-term memories are those which last longer, in other words, you can retrieve them later, after hours or days or even years.

Baddeley's study

Aim: Baddeley aimed to see if there was a difference in the type of encoding used in short- and long-term memory.

Method: There were four groups of participants: A, B, C, and D. Each group was read sets of words at a rate of one per second – they then had to recall the words in order

Group	Task	Encoding	Example
Group A	Heard sets of five words that sounded the same – recall was then immediate	acoustically similar words (they sound the same)	cab, can, mad, man, max mat, map, cap, cad, cab
Group B	Heard sets of five words that sounded different - recall was then immediate	acoustically dissimilar words (they don't sound the same)	cat, pen, dog, car, bin eye, cup, hit, bat, car
Group C	Heard sets of five words that had similar meanings - they waited 20 minutes before they recalled the words	semantically similar words (they have a similar meaning)	great, large, big, huge, broad long, tall, fat, wide, high
Group D	Heard sets of five words that had different meanings - they waited 20 minutes before they recalled the words	semantically dissimilar words (they don't mean the same thing)	good, huge, hot, safe, thin deep, strong, foul, old, late

Results: Baddeley found that participants did worse with list A than list B. He also found that they did worse with list C rather than list D.

Conclusion:

The fact that participants did worse with list A than list B suggests that words are encoded **acoustically** because those were the words that got muddled up so they must have been thinking in terms of the sounds of the words. This applies to short-term memory (STM) because they were asked to recall the list immediately.

The fact that participants did worse with list C than list D suggests that information is encoded **semantically** if it isn't recalled immediately. This applies to long-term memory (LTM) because these lists were recalled after 20 minutes.

Overall this suggests that short-term memories are encoded acoustically and longer-term memories are encoded semantically

Study tip A conclusion is an interpretation of the results – an attempt to generalise from the particular research study to wider issues. In this case, making a statement about short-term memory generally, rather than a statement about the participants in the study.

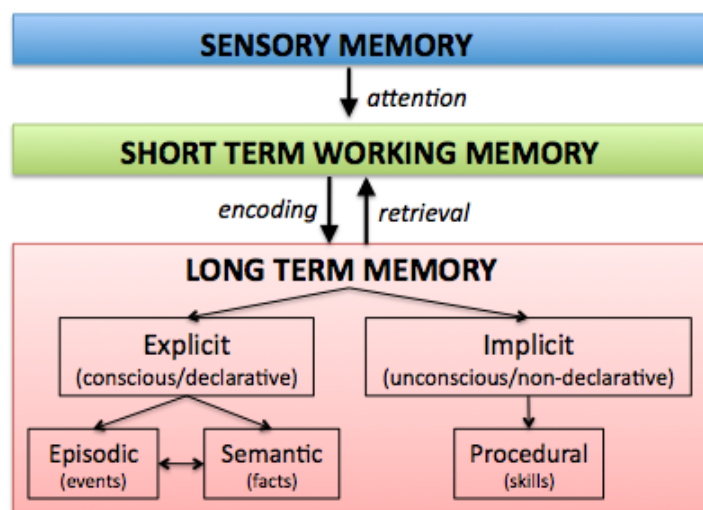


Point	One strength is this is a well-controlled experiment which enhances the validity of the results.
Evidence/example	One important factor that was controlled was poor hearing, which could be an extraneous variable. If participants had poor hearing they might be less likely to hear similarity in words. Baddeley did give participants a hearing test
Explain	The level of control means we can be more confident that the results are due to changes in the independent variable (acoustic or semantic similarity/dissimilarity). STM may sometimes be visual

Extraneous variable:

Point	One weakness is that Baddeley may not have been testing LTM at all.
Evidence/example	In the study LTM was tested by waiting for just 20 minutes before the participants were asked to recall the words
Explain	There are many things that we remember for 20 minutes but have forgotten by the next day, so recall after 20 minutes may not really be LTM. Therefore, Baddeley may not have actually been testing what he claimed to be testing.

Different types of memory



Episodic memory:

Semantic memory:

Procedural memory:

Evaluation

You need to be able to discuss **strengths and limitations** of psychological concepts, theories and studies

Point	One strength of dividing LTM into different types is that people who suffer from loss of memory due to brain damage lose only certain kinds of memory
Evidence/example	
Explain	

Point	Another strength is that brain scans have shown separate locations in the brain for each of the three types of memory
Evidence/example	
Explain	

Point	One weakness is that, in reality, there isn't a clear difference between episodic and semantic memories
Evidence/example	
Explain	

Answer the following questions in your exercise book.

1. Which **one** of the following terms is a description of storage? [1 mark]

- (i) Putting information into your memory.
- (ii) Recalling information.
- (iii) Learning information in terms of how it sounds.
- (iv) Holding information in your memory.

2. Use your knowledge of psychology to explain how memories are encoded. Give an example in your answer. [2 marks]

3. Explain what is meant by each of the following terms: storage and retrieval. [4 marks]

4. Which one of these is a description of procedural memory? [1 mark]

- (i) Your memory for personal events.
- (ii) Your unconscious memory for skills.
- (iii) Your memory for knowledge and facts of the world.

4. Outline **two** criticisms of research into different types of memory. [4 marks]

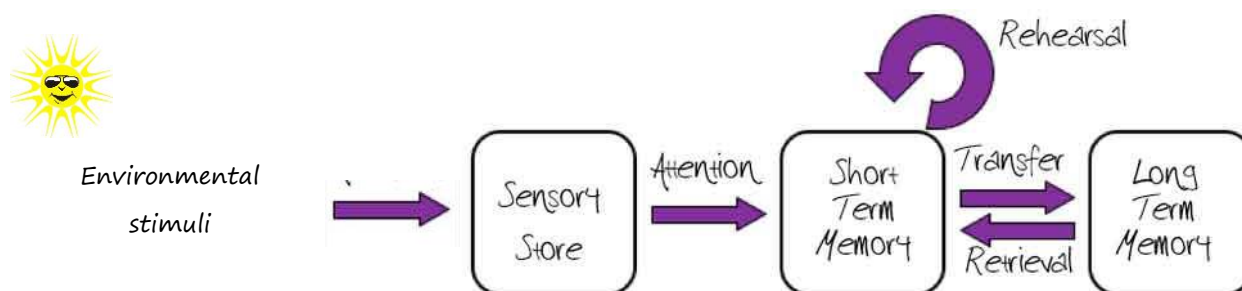
5. Explain what is meant by the terms *episodic memory*, *semantic memory* and *procedural memory*. [6 marks]

EXPLANATIONS

There are different ideas on exactly how our memory system is organised.

The Multi-store model – Atkinson and Shiffrin (1968)

Richard Atkinson and Richard Shiffrin developed a model to explain how memory works. The model consisted of three kinds of memory and an explanation about how information moves from one store to the next.



<https://www.youtube.com/watch?v=egzvLaP3498>

This model states that memory is organised into different stores, the sensory store, the short-term store and the long-term store.

Each of these stores has different features:

	(en) coding	Capacity	Duration
Sensory memory			
Short-term memory			
Long-term memory			

A case study to support the MSM

Case studies of individuals with memory disorders have provided some useful evidence relating to the multi-store model. One of them has become especially well known – the case of patient ‘HM’ (he was only known by his initials, why do you think that was so?)

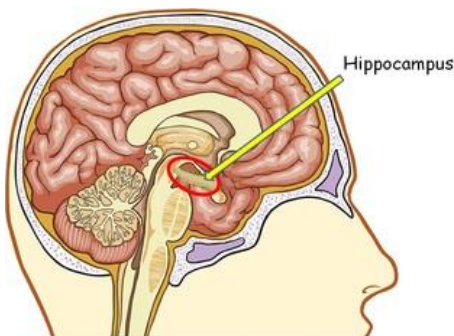
At the age of 27, HM underwent a radical surgery to try to cure his epilepsy. Unfortunately, the procedure was in its infancy and not fully understood.

The hippocampus was removed on both sides of his brain, and although his epilepsy was cured, he was left with amnesia. His memory of events prior to the surgery was near normal but he could not remember anything after the surgery.

His LTM was tested repeatedly but never improved with practice. However, he performed well on tests of immediate memory span.



Q: How does the case study of HM provide evidence in support of the multi-store model?



The hippocampus is now known to be central to memory function

Testing the capacity of the STM – Digit Span

- Digit spans measure the **capacity** of the STM.
- By testing an individual with lists numbers of varying lengths it is possible to find out **how much** information they can store in their STM

What was **your** digit span?

There are ways that we can extend how much information we can hold in our STM such as **chunking**.

This is the process of putting information together to create meaningful chunks of information using information stored in the LTM.

EVALUATION

You need to be able to discuss **strengths and limitations** of psychological concepts, theories and studies

Point	One strength is there is research evidence for different memory stores
Evidence/example	
Explain	

You need to be able to discuss **strengths and limitations** of psychological concepts, theories and studies

Point	One weakness is that the model is too simplistic
Evidence/example	
Explain	

Point	Another weakness is that the model over-emphasises the role of rehearsal
Evidence/example	
Explain	



Answer the following questions in your exercise book.

1. Identify **three** features of short-term memory (STM).

Refer to encoding, capacity and duration in your answer. *[3 marks]*

2. Explain how the multi-store model has increased our understanding of memory. *[4 marks]*

3. Outline and evaluate the multi-store model of memory. *[9 marks]*

Primacy and Recency

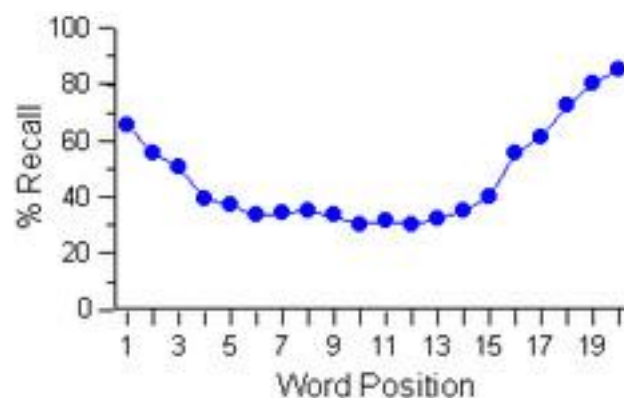
Murdock's serial position curve study

Bennet B. Murdock Junior conducted a similar investigation to the one described on the left.

Aim: Murdock (1962) set out to see if memory for words was affected by the number of words a person had to remember.

Method: To create his word lists Murdock randomly selected words from the 4,000 most common words in English. 103 students on a Psychology course took part in the study and were tested in groups over a number of different sessions. In each session, the participants listened to 20 word lists, each containing different words. The words lists varied in length from 10 words to 40 words. After each list the participants had to recall the words they had just heard.

Results: Murdock found that the likelihood of recall was related to the position of the word in the list, as shown in the graph below for a 20-word list

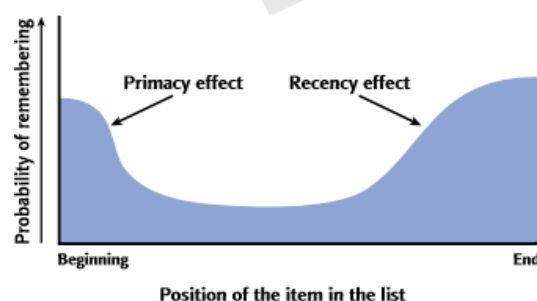


A similar graph was produced no matter what the length of the list – in every case participants had:

- Higher recall for the first few words on the list than those in the middle of the list. This is called a primacy effect because primacy means ‘first’.
- Highest recall for the final few words on the list. This is called a recency effect because these words were most recent

Conclusions: These results demonstrate a serial position effect – the position of a word determines the likelihood of its recall. Recency effects are strongest. The results support the multi-store model because they fit the predictions of the model. The first words are well remembered because they have been rehearsed longest and are therefore long-term memories. The more recent words are well remembered because they are still in the short-term memory store.

So the study illustrates the action of short- and long-term memory as described by the multistore model.





Research task

You have been asked to conduct an experiment to investigate the effects of serial position when learning a list of words.

Describe how you would conduct this experiment. In your answer, you need to include:

- The experimental design you would choose, and why this would be suitable.

- The task participants would be required to do and the data that you would collect.

- The results you would expect to find from your experiment.

When participants agree to take part in research they do not know how much it will affect them emotionally. Therefore, it is important that participants know that they can leave the experiment at any time and that they can withdraw their responses in the experiment so that it is not used in the results.

Question: What can the researcher do to ensure that the participant is aware that they are allowed to do this?



The Generation Game

Read the item below and then answer the question that follows.

The Generation Game was an 80s TV show which featured a particularly novel way for contestants to win prizes. They had to watch a number of items go past them on a conveyor belt and had to remember as many of those items as they could – they were allowed to take home anything they remembered. There were usually 20 items and each contestant saw each item for a few seconds before it disappeared out of their view. Contestants often remembered the first and last prizes that they saw.

Question: Explain why the contestants tended to remember the first and last prizes that they saw. Refer to the primacy and recency effect in your answer. [4 marks]



Evaluation

You need to be able to discuss **strengths and limitations** of psychological concepts, theories and studies

able to discuss

Point	One strength is that this study was conducted in very controlled conditions which means we can trust the results.
Evidence/example	

Explain	
---------	--

Point	One weakness is that, in this study, memory was investigated by using lists of words that only represent a small part of what we do with our memories.
Evidence/example	
Explain	

Memory as an active process:

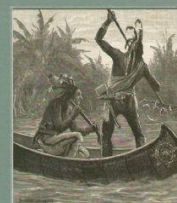
Frederic Bartlett (1932) saw memory as something which is active. He conducted a series of studies to show that memories are formed through reconstruction.

Bartlett thought that memory was not just a stored copy of facts

He believed that we change our memories to fit in with what we already know, even when we think we are remembering exactly what happened. His hypothesis was that if a person was given something to remember and then asked to recall the story or picture over a period of weeks or years, the recollection would be endlessly transformed (i.e. changed).

This is known as **reconstructive memory**

In particular, if the information to be remembered is somewhat unfamiliar and/or unusual, people will impose their own familiar



expectations and make the story more familiar over time. Such expectations are based on social and cultural knowledge

To test and support this idea Bartlett told participants a story and then asked them to recall it afterwards.

War of the ghosts study

This study is **named** in the specification and therefore you can be asked questions specifically about this study.

Aim: To investigate how memory is reconstructed when people are asked to recall something repeatedly over a period of weeks and months. Bartlett's aim was to use a story from a different culture to see how cultural expectations affect memory.

Method: Bartlett used a technique he called serial reproductions. In the War of the Ghosts study he showed participants the story on the left and asked them to reproduce it shortly after (e.g. 15 minutes later), then he showed the new version to another person and asked them to recall it a short time later, and repeated this with further participants. A key feature of the story was that it belonged to a culture that was very different from that of the participants – Bartlett's participants were people at his university in the UK (students, friends and colleagues).

Bartlett kept a record of successive recall (a protocol). None of the participants knew the purpose of the study.

Results: Bartlett found that participants remembered different parts of the story and that they interpreted the story within their own frames of reference (social and cultural expectations), changing the facts to make them fit.

Bartlett made several observations about the transformations that occurred:

- The story was shortened, mainly by omissions
- The phrases used were changed into language and concepts from the participant's own culture. For example, using 'boats' instead of 'canoes'.
- The recalled version soon became very fixed, though each time it was recalled there were slight variations

Conclusions: All of these transformations had the effect of making the material easier to remember. We don't remember details, we remember fragments and use our knowledge of social situations to reconstruct memory. Individuals remembered the meaning and tried to sketch out the story using invented details.

This reconstructed version of events is simpler to remember and therefore becomes our memory for the event

Exam style question



Outline and evaluate Bartlett's 'War of the Ghosts' study. [9 marks]

Evaluation

You need to be able to discuss **strengths and limitations** of psychological concepts, theories and studies

Point	One strength is Bartlett's research has important implications in situations where accurate recall is crucial, for example, eyewitness testimony
Evidence/example	
Explain	

Point	One weakness is that Bartlett's own beliefs may have affected the way he interpreted the data
Evidence/example	
Explain	

Reconstructive theory

Sometimes you will be asked specific questions about a study however, sometimes the questions will ask about the **theory**. You must focus on what is required

Frederic Bartlett (1932) conducted the War of the Ghosts study to support his theory of reconstructive memory. It showed how people tend to remember the overall meaning of the events and reconstruct the story from this overall meaning. This shows that memory is an active process – people don't behave like a passive memory machine, recording everything that happened. They actively reconstruct a memory.

Memory is inaccurate

Many people believe that they have a very exact recall for events that have happened in their past. It is quite likely that you have argued with a friend about something in the past. Your friend's memory and your memory don't match and you feel very sure that you are right. Your memory may seem very real and accurate.

Psychologists too believed that memory was simply an act of reproduction – that we store information about an event and recall it later without altering the record in any way.

However, Bartlett challenged this and proposed that memory was an active process. We store fragments of information and when we need to recall something we build these fragments into a meaningful whole. The result is that elements are missing and memories are not an accurate representation of what happened.

Reconstruction

According to Bartlett the information we store in our long-term memories has been changed before it is 'recorded'. We 'record' small pieces of information and later, when recalling the event, we recombine the pieces to tell the whole story. Each time you retell the story the elements are combined slightly differently

Social and cultural influences

A key part of Bartlett's theory is that the way we store and later recombine the 'small pieces' can be related to social and cultural expectations. In the picture on the left, the way participants remembered the picture was influenced by what they expected to be true – that a black person is more likely to be the attacker.

In the War of the Ghosts study, people transformed those parts of the story that did not fit with their own cultural expectations; for example, in the actual story the young men were hunting seals – this was often misremembered as going fishing, a more common activity for British young men.

Social/cultural expectations may influence storage and/or recall. Bartlett called his work 'the social psychology of remembering'.

Effort after meaning

In the War of the Ghosts what people recalled was the general meaning of the events rather than specific details (though they did remember some of these too). Bartlett used the phrase 'effort after meaning' to describe this. What he meant was:

- We focus on the meaning of events
- Afterwards we make an effort to interpret the meaning in more familiar terms. In other words, we try to make sense of the 'fragments'

Evaluations

+ More realistic research

One strength is that Bartlett's way of investigating memory reflects how we actually use memory in our everyday lives, which is more realistic than research using word lists to be remembered

+ Real-world application

Another strength of this theory is that it can explain problems with eyewitness testimony.

- Some memories are accurate

One weakness is that it is wrong to suggest that all memories are inaccurate or affected by social expectations



Ann and Martyn were at the bank when a person attempted to rob it. Later, when they were at the police station, they gave different accounts of the incident. Ann said the incident happened in a different order than Martyn recalled. She also remembered the robber wearing different clothes and saying different things to the people at the bank than Martyn recalled.

Q: Use your knowledge of the theory of reconstructive memory to explain why Ann and Martyn have different memories of the same event. [6 marks]

Factors affecting the accuracy of memory

When looking at reasons for forgetting it is hard to determine whether or not the information is actually truly forgotten or whether it's just that you cannot retrieve it. Think of the times it's taken someone else to remind you of something and then memory comes flooding back.

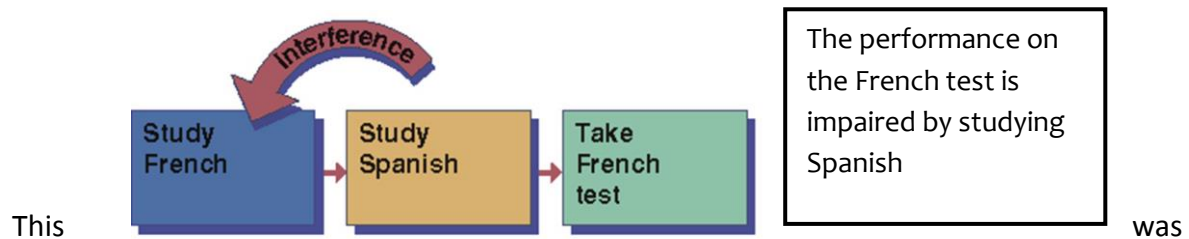


Forgetting may be the result of either **availability** or **accessibility**

Availability:

Accessibility:**Interference theory**

One explanation for forgetting is called **interference**. Forgetting may occur if two memories compete with each other. This is especially likely if the two memories are quite similar. Interference causes our memories to be distorted in some way



This study is **not** named in the specification and therefore you cannot be asked questions specifically about this study.

However, you can use the study as a means of answering such questions about how interference affects the accuracy of memory

McGeoch and McDonald's study

Aim: To see if information learned more recently affects the accuracy of earlier memories of learned material.

Method: Twelve participants had to learn a list of ten words until they could remember them with 100% accuracy. They then were shown a new list.

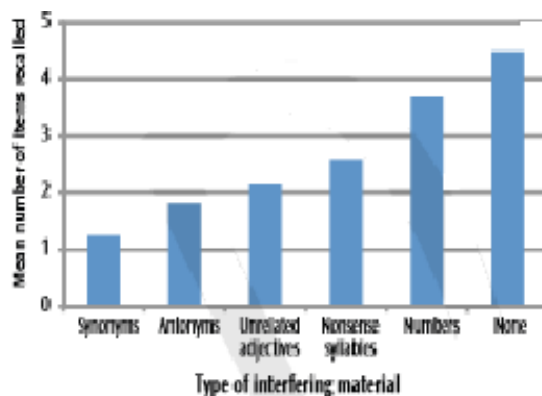
There were five different kinds of lists that were shown to the participants:

- List 1: synonyms – words with the same meaning as the originals.
- List 2: antonyms – words with the opposite meaning to the originals.
- List 3: words unrelated to the original ones.

- List 4: nonsense syllables.
- List 5: three-digit numbers.
- Control condition: no new list – the participants were just retested

Results: When the participants were then asked to recall the original list of words, their performance depended on the nature of the second list. The most similar material (synonyms) produced the least accurate recall. All the results are shown in the graph below

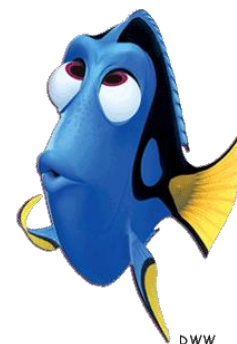
Graph showing results of the study by McGeoch and McDonald



Conclusion: The results show that interference is strongest when an intervening activity is similar. In other words, forgetting is more likely to happen if you try do something else quite similar afterwards

ACTIVITY

Question: Now that you know how interference can affect memory, what practical applications can you think of for this knowledge?



EVALUATION

You need to be able to discuss **strengths and limitations** of psychological concepts, theories and studies

Point	One strength is that the researchers in this study used a number of techniques to ensure that their test of memory was unbiased.
Evidence/example	

Explain	
---------	--

Point	One weakness is that in this study interference was tested using word lists, which does not reflect real-life memory activity
Evidence/example	
Explain	

Point	Another weakness is that interference may not be an explanation of forgetting.
Evidence/example	
Explain	



Answer the following questions in your exercise book.

1. Describe the method used by Bartlett in the War of the Ghosts study. *[2 marks]*

2. Researchers have criticised Bartlett’s War of the Ghosts study because the story used was unusual. Outline **one** other criticism of Bartlett’s study. *[3 marks]*

3. Explain what Bartlett’s War of the Ghosts study shows about memory being reconstructed. *[3 marks]*

4. A teacher struggles to remember the names of her new students because she has taught so many students before. Use your knowledge of psychology to explain why this would occur. *[3 marks]*

5. Explain how interference can be used to explain accuracy in memory. [4 marks]

6. Explain why interference studies may lack validity. [3 marks]

Context

It has been found that information is linked to the context in which it was initially learned. A good technique to use then is if you are asked to remember something or you are trying to remember something in your exam then the thing to do is to remember where you were when you learnt that information: put yourself back into the situation.

Certain triggers (cues) can be encoded in memory at the time of learning. For example, if you think about one of your primary school classrooms, it may trigger a memory of something that you learned in that classroom

Question: Can you think of a real-life application for remembering in context?

Godden and Baddeley (1975)

Aim To see if context improved a person's memory

Method:

Eighteen participants were recruited who were all members of a diving club. The divers had to listen to a list of 36 unrelated words either on the beach (dry), or under about 10 feet of

Point	One weakness is that word lists were used to test memory, which is not a 'natural' way to investigate recall.
-------	---

water (wet). The divers were tested after about four minutes to see how many words they could recall

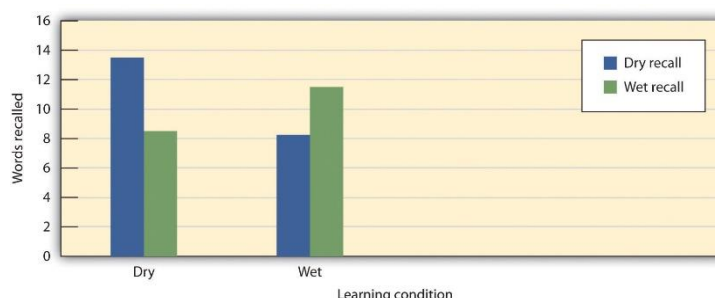
There were **four** conditions:

Group 1: learned on the beach and then tested on beach (DD)

Group 2: learned underwater and tested on beach (WD)

Group 3: learned on beach and tested underwater (DW)

Group 4: learned underwater and tested underwater (WW)



Results The results showed that those who recalled in the same environment as that in which they had learned the words recalled 40 % more than those recalling in a different environment.

Conclusion This concluded that recall of information is improved if it occurs in the context in which it was learned.

EVALUATION

You need to be able to discuss **strengths and limitations** of psychological concepts, theories and studies

Evidence/example	
Explain	
Point	Another weakness is that participants had to recall the words almost immediately, which is a very specific effect.
Evidence/example	
Explain	

Factors affecting the accuracy of memory: False memories

Reconstructive memories can be applied to eyewitness testimony – people who are witness to a crime do not record the scene passively but are likely to reconstruct what happened based on fragments of what they remember and, most importantly, their expectations.

Elizabeth Loftus argues that eyewitnesses reconstruct their memories but this may happen during therapy. Some therapists aim to 'recover' memories in their patients – in other words they help their patients remember things that the patient had forgotten. In some cases, these 'recovered memories' turn out to be false.

Elizabeth Loftus and Jacqueline Pickrell (1995) investigated such false memories in a study which is referred to as the 'Lost in the Mall' study.

Elizabeth Loftus and Jacqueline Pickrell (1995)

The aim of this study was to see if false memories could be created in participants through suggestion in order to test the existence of repressed and false memories.

Method: The study included 24 participants (3 males and 21 females) ranging in age from 18 to 53. For each participant, a relative was also contacted.

Results: In total there were 72 true episodes to be remembered and participants remembered 68% of these.

Six of the participants (25%) recalled the false story fully or partially. One participant thought she recalled it and then changed her mind and the others had no memory of the false event.

19 out the 24 participants correctly chose the lost in the mall memory as false.

Conclusions: This research suggests that the simple act of imagining an event has the potential of creating and implanting a false memory in a person.

This shows that false memories are an example of reduced accuracy in memory, based on the idea of reconstructive memory.

EVALUATION

You need to be able to discuss **strengths and limitations** of psychological concepts, theories and studies

Point	One weakness of the study is that the false memory event (lost in a mall) is not of the same traumatic kind that might be recovered by a therapist.
Evidence/example	
Explain	

Point	A weakness is that participants may be left with the implanted false memories.
Evidence/example	
Explain	

Answer the following questions in your exercise book.

1. Outline one criticism of research into how false memory affects the accuracy of memory. [2 marks]

2. Describe the results and conclusion of one study that investigated false memory. [4 marks]

3. Mark, a full-time clothes model was arrested for stealing a woman's handbag from a café. The victim, called Debbie, identified him as stealing her handbag and picked him out from a line-up. He had an alibi and couldn't have done it as he was out of the country working. The victim admitted she had seen a picture of Mark in a magazine she was reading before her handbag was stolen.

Outline what is meant by false memory and how it affected the accuracy of Debbie's memory of the theft of her handbag. [4 marks]
