

# GCSE Psychology

## Paper 2

### Social context and behaviour

#### Revision guide



NAME: \_\_\_\_\_

# EXAM DATES

FRIDAY 24<sup>TH</sup> MAY 2019

MONDAY 3<sup>RD</sup> JUNE 2019

## Paper 1: Cognition and behaviour

### What's assessed

- Memory
- Perception
- Development
- Research methods

Students will be expected to draw on knowledge and understanding of the entire course of study to show a deeper understanding of these topics.

### How it's assessed

- Written exam: 1 hour 45 minutes
- 100 marks
- 50% of GCSE

### Questions

- Section A: multiple choice, short answer and extended writing (25 marks)
- Section B: multiple choice, short answer and extended writing (25 marks)
- Section C: multiple choice, short answer and extended writing (25 marks)
- Section D: multiple choice, short answer and extended writing (25 marks)

- MEMORY
- RESEARCH METHODS
- PERCEPTION
- DEVELOPMENT

YEAR 10

## Paper 2: Social context and behaviour

### What's assessed

- Social influence
- Language, thought and communication
- Brain and neuropsychology
- Psychological problems

Students will be expected to draw on knowledge and understanding of the entire course of study to show a deeper understanding of these topics.

### How it's assessed

- Written exam: 1 hour 45 minutes
- 100 marks
- 50% of GCSE

### Questions

- Section A: multiple choice, short answer and extended writing (25 marks)
- Section B: multiple choice, short answer and extended writing (25 marks)
- Section C: multiple choice, short answer and extended writing (25 marks)
- Section D: multiple choice, short answer and extended writing (25 marks)

- SOCIAL INFLUENCE
- LANGUAGE, THOUGHT + COMMUNICATION
- BRAIN AND NEUROPSYCHOLOGY
- PSYCHOLOGICAL PROBLEMS

YEAR 11

## GOLDEN RULE

ANSWER **EVERY** QUESTION ON THE PAPER!  
YOU CAN ONLY GAIN MARKS IF YOU WRITE SOMETHING!

# EXAM AND REVISION TIPS

1. When defining a key term, do NOT use the word you are defining within your answer!

 "Obedience is when people obey authority figures"



"Obedience is when people follow orders from authority figures"

2. If you are asked to draw a graph, make sure you include a title, labelled X and Y axis and an appropriate scale – i.e. if the data starts at 400, **don't** start your axis at 0!

3. Never start a hypothesis with 'I'! Always start it with "There will be..."

4. Use acronyms to summarise main points of theories – i.e. **SPCF** (sensorimotor, pre-operational, concrete operational and formal operational – stages of development)

5. Make your revision material as **concise** as possible – summarise key studies & theories onto flashcards. You could have description on the front and evaluation on the back!

6. No matter how tempting it is, avoid listening to music whilst revising. Studies have shown that we have trouble recalling if our physical state is different from when we learnt the material (Carter & Cassaday!).

If you use music because other things distract you, find a quiet room without the distractions instead.

## USEFUL WEBSITES

- <https://illuminate.digital/aqapsychgcse/> (Use the digital access to the textbook to summarise key concepts, catch up on missed work and practice exam questions!).
- <https://learndojo.org/aqa/gcse-psychology-revision/> (A website that covers **most** of what you need to know for your exam).
- [www.getrevising.co.uk](http://www.getrevising.co.uk) (Make flashcards, revision documents, steal revision material that is already made! Just make sure you select the correct exam board [**AQA**] using the filters when searching).
- <https://simplypsychology.org/> (An older website but still relevant! Just a warning – you don't need to know everything on that website).
- <https://www.tutor2u.net/psychology/collections> (An **A-LEVEL** website ran by exam performance specialists – hundreds of free study notes with the choice to buy extra revision material).

## GOLDEN RULE

ANSWER **EVERY** QUESTION ON THE PAPER!  
YOU CAN ONLY GAIN MARKS IF YOU WRITE SOMETHING!

# EXAM TIPS

Use a template like the one below to help structure your 9 mark answers

**AIM:** What did the researcher want to find out?

**METHOD:** How was the study carried out?

**RESULTS:** What did the researcher find?

**CONCLUSION:** What can the researchers now say about **people** in general?

EVALUATION PEE #1:

EVALUATION PEE #2:

# EXAM TIPS

If you struggle to remember evaluation, use the prompts below to help!

## HOW CAN WE EVALUATE STUDIES?

G

R

A

V

E

D

### GENERALISABILITY

### RELIABILITY

### APPLICATION

### VALIDITY

### ETHICAL ISSUES

### DESIGN

Does the sample used in the study represent everyone? If the study used males only, does it represent females?

Can the study be easily replicated? If not, we cannot say it is a reliable method

Can the findings from the research be used to benefit society in any way? Can the findings from the research be used to explain why/how something happens in every day life?

A study may lack external validity if the people used in the study have a specific characteristic, i.e. epilepsy

Does the experiment break any ethical guidelines? Which ones does it break?

What experimental design is used in this study? How might this impact the results?

Does the study use animals? If so, can we say that a human would act in the same way?

If the research is a case study, it would have low reliability as we cannot easily replicate case studies. If the research is a lab experiment, it can be easily replicated.

"Research into memory has shown us that if we rehearse information, we have a better chance of remembering it. This is useful because we can use this to select information we want to remember"

Does the study lack ecological validity? If the setting of the study does not replicate an everyday setting, it lacks ecological validity

If the study doesn't break any ethical issues, it is a strength but DO NOT include this as evaluation, it is not strong enough!

Would a different experimental design suit the study better? Explain why

## HOW CAN WE EVALUATE THEORIES?

S

C

O

U

T

### SUPPORTING EVIDENCE

### CONFLICTING EVIDENCE

### OTHER THEORIES

### USEFULNESS

### TESTABLE

Are there any studies or other evidence which might suggest this theory is correct?

Are there any studies or other evidence which might suggest this theory is incorrect?

How else might we explain this behaviour? Are there important things that this theory fails to explain?

Does this theory have any practical applications? Does it have any use in a real life situation?

Can this theory be tested? If it is difficult to test, how can the theory be 'proved'?




**Remember:** your evaluation doesn't have to be a mixture of strengths and weaknesses! It can be all strengths or all weaknesses.



# TOPIC 5 – SOCIAL INFLUENCE

What do I need to know for the social influence topic?

Content	Additional information
Conformity	Identification and explanation of how social factors (group size, anonymity and task difficulty) and dispositional factors (personality, expertise) affect conformity to majority influence.  Asch's study of conformity.
Obedience	Milgram's Agency theory of social factors affecting obedience including agency, authority, culture and proximity.  Explanation of dispositional factors affecting obedience including Adorno's theory of the Authoritarian Personality.
Prosocial behaviour	Bystander behaviour: identification and explanation of how social factors (presence of others and the cost of helping) and dispositional factors (similarity to victim and expertise) affect bystander intervention.  Piliavin's subway study.
Crowd and collective behaviour	Prosocial and antisocial behaviour in crowds: identification and explanation of how social factors (social loafing, deindividuation and culture) and dispositional factors (personality and morality) affect collective behaviour.

#	Content			
1	A study of conformity: Asch (1955)			
2	A study of conformity: Asch (1955) - AO3			
3	Explaining conformity: Social and dispositional factors			
4	A study of obedience: Milgram (1963) – AO1 + AO3			
5	Explaining obedience: Milgram's agency theory (social factor)			
6	Explaining obedience: Adorno's authoritarian personality (dispositional factor)			
7	A study of prosocial behaviour: Piliavin (1969)			
8	Explaining prosocial behaviour: Social and dispositional factors			
9	A study of crowd/collective behaviour: Zimbardo (1969)			
10	Explaining crowd/collective behaviour: Social and dispositional factors			



## CONFORMITY

When someone's behaviour or thinking changes because of group pressure. The pressure might be real or imagined.

KEY STUDY - IMPORTANT

### ASCH (1955) - CONFORMITY

	AO1 DESCRIPTION	AO3 EVALUATION
A	To investigate how people respond to group pressure.	<p>Asch's research only used males. This is a weakness because the research doesn't represent how females would have responded. We can't generalise the results to females.</p> <p>Asch's research only used Americans. This is a weakness because the research doesn't represent how other nationalities would have responded. We can't generalise the results to the wider population just because Americans behave in a certain way.</p> <p>Perrin &amp; Spencer (1980) found just one act of conformity among 396 trials. This is a weakness because their research shows that people don't conform as much as Asch thought, suggesting he is wrong in his theory.</p>
M	<p>Asch used 123 American male students in his research who believed they were taking part in a different experiment.</p> <p>The participant was sat in a room with 6-8 confederates. The group were then shown two cards. One had a 'standard' line and the other had three 'comparison' lines.</p> <p>On each trial, the men were asked to say whether line A, B or C was the same as the standard line.</p> <p>The confederates were told to give the wrong answer, even their answers were clearly wrong (unambiguous).</p>	
R	The participants gave a wrong answer <b>36.8%</b> of the time. <b>75%</b> of participants conformed at least once.	
C	People are influenced by group pressure, even when the task involves giving a wrong answer. People can resist conformity though.	

Confederates = white circles

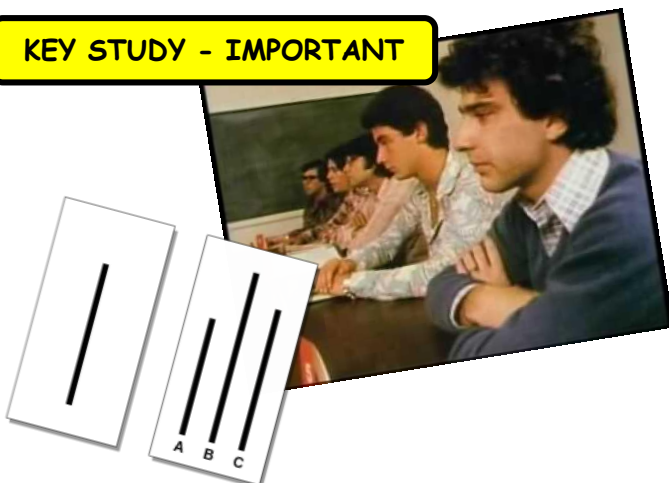
Participant = red circle



#### EXAM PRACTICE #1

- 1) Describe the aim, method, results and conclusion of Asch's study into conformity. [4 marks]
- 2) Evaluate Asch's study into conformity. [4 marks]
- 3) Describe and evaluate Asch's study into conformity [9 marks]

KEY STUDY - IMPORTANT



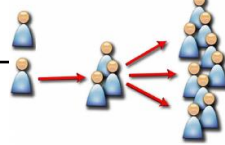
**WHAT MAKES US CONFORM?**

**SOCIAL FACTORS** (You conform because of the characteristics of the **environment**)

**DISPOSITIONAL FACTORS** (You conform because of your **own** characteristics, i.e. personality)

**GROUP SIZE**

The more people there are in a group, the greater the pressure to conform to their opinion.



**PERSONALITY**

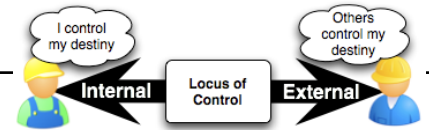
Someone with an external locus of control believes that they do not influence the things that happen to them. Someone with an internal locus of control believes that they do influence the things that happen to them.

**ANONYMITY**

When Asch give his participants anonymity (i.e. write down your answer instead of saying out loud), conformity rates decreased because you don't feel the pressure to conform from the group.



In terms of conformity, people with external LOCs were more likely to agree with the group pressure whereas internal LOCs are more likely to resist the group pressure and stick to their own answer.



**TASK DIFFICULTY**

As the task difficulty increases, the answer becomes less obvious and people feel less confident about their answer so they look to others for the right answer.



**EXPERTISE**

Your intelligence increases your confidence in your opinions and knowledge so people with greater expertise are less likely to conform to group pressure. One researcher found that if someone felt good at maths, they would be less likely to agree with incorrect answers.



**EXAM PRACTICE #2**

1) Identity **three** social factors that can affect conformity. **[3 marks]**

2) Simon is a confident young man who is doing well at school and is very talented at geography. He has recently started to hang around with some boys who often get into trouble. Simon has a geography exam in a few weeks which is worth 50% of his overall exam grade. One of the boys has stolen the exam paper from the exams officer without him looking. The boys decide they are going to cheat and look at the exam paper.

Explain **one** aspect of Simon's disposition which would explain why he is unlikely to conform and look at the paper. **[3 marks]**

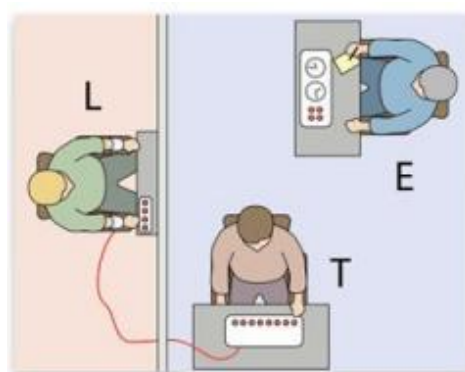
3) Explain the difference between a social and dispositional factor in relation to explaining conformity. **[3 marks]**





**OBEDIENCE**

Following orders from an authority figure (i.e. police, teachers).



**MILGRAM (1963) - OBEDIENCE**

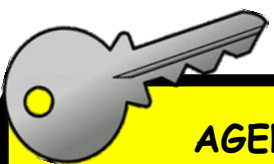
	AO1 DESCRIPTION	AO3 EVALUATION
A	To see whether a normal person would give another person a lethal electric shock if told to do so	<p>A weakness of Milgram's research is that some participants appeared to have realised it was fake. This is a weakness because if the participants realised the study was fake, they would show demand characteristics (impressing the researcher by changing behaviour).</p> <p>A weakness of Milgram's research is that it only used male participants. This is a weakness because we cannot generalise the findings to females. We cannot say that females would have reacted in the same way. The study is androcentric.</p> <p>A weakness of Milgram's research is that the participants were volunteers. This is a weakness because Milgram would have ended up with extroverts who are willing to take part in research. We can't say for certain that other personality types would react in the same way.</p>
M	<p>40 male volunteers (20-50yrs) were told they were taking part in memory research. They were paid for their time.</p> <p>The <b>teacher</b> (the participant) was told by the <b>experimenter</b> (actor) to give the <b>learner</b> (actor) shocks every time the learner got the answer wrong. The <b>fake</b> electric shocks started at 15v and went up to 450v (lethal).</p>	
R	<p>100% of people went to 300v 65% of people went to 450v Three participants had seizures (fits) caused by stress.</p>	
C	<p>People will listen to an authority figure if they believe they aren't responsible for the consequences. People obeyed because of the location, the pressure and the situation was new to them.</p>	

**EXAM PRACTICE #3**

- 1) Describe the aim, method, results and conclusion of Milgram's study into obedience. [4 marks]
- 2) Evaluate Milgram's study into obedience. [4 marks]
- 3) Describe and evaluate Milgram's study into obedience [9 marks]



**WHAT MAKES US OBEY?**



**AGENCY THEORY**  
 We obey because we are acting as an agent for an authority figure.

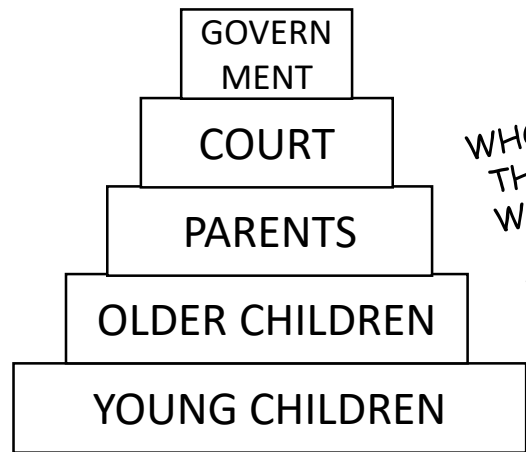
“People will listen to an authority figure if they believe they aren’t responsible for the consequences.”



**AUTONOMOUS STATE**  
 Autonomous state is when people behave according to their own principles and feels responsible for their actions.



**AGENTIC STATE**  
 Agentic state is where people act on behalf of someone else and therefore follow their orders. They don't feel responsible for their actions.



WHO IS AT THE TOP?  
 WHO HAS MOST POWER?

**PROXIMITY**  
 When the learner sat in the same room as the teacher, obedience rates dropped from 65% to 40%, suggesting that proximity increases the 'moral strain', i.e. we feel sorry for them and responsible for our actions.

We act as 'agents' because we don't feel responsible for our actions



**“I WAS ONLY FOLLOWING ORDERS.”**

AO3 EVALUATION
The agency theory explains why atrocities such as the Holocaust happened. This is a strength because the theory has real life application, it helps us explain society.
Hofling found that nurses would administer double the maximum dose of a drug because of orders from a doctor on the phone. This is a strength because it shows how people obey to authority like the theory states.
The agency theory can give people who follow destructive orders an excuse for their behaviour. This is a weakness because it allows people to think they aren't responsible for their actions.

- EXAM PRACTICE #4**
- 1) Identify **three** features of Milgram’s agency theory. **[3 marks]**
  - 2) Explain the role of authority in Milgram’s agency theory. **[3 marks]**
  - 3) Describe what Milgram’s agency theory shows about obedience. **[3 marks]**
  - 4) Milgram’s agency theory has been criticised. Use your knowledge of psychology to evaluate this theory. **[4 marks]**

**WHAT MAKES US OBEY?**



**AUTHORITARIAN PERSONALITY**  
 A person who is easily influenced by authority. They follow people above them but are hostile to people below them. They may have experienced harsh parenting as a child.



How do people with an authoritarian personality think?

They think in 'black and white' - something is either good or bad. They don't see that people can be different. They believe in rigid stereotypes that all men are bullies and all women are emotional.

What is meant by displacement or scapegoating?

They need to displace their anger onto something else to relieve anxiety and hostility. For example, they might have a bad day at school and when you come home you take it out on something/someone else (i.e. shouting at your sibling). People with an authoritarian personality displace their feelings onto those socially inferior to them.

What do authoritarian people experience in childhood?

The authoritarian personality is developed when a child experiences strict parenting and extremely high standards of achievement. They offer conditional love (the child only receives love if they behave correctly). The child internalises these values and expects everyone to behave like this and develops hostility towards their parents.



**A03 EVALUATION**

The authoritarian theory can give people who follow destructive orders an excuse for their behaviour. This is a weakness because it allows people to think they aren't responsible for their actions

Adorno believed that the authoritarian personality is caused by strict parents but other researchers say that it is caused by lack of education. This is a weakness because there are researchers who disagree with Adorno.

**EXAM PRACTICE #5**

- 1) Identify **three** personality characteristics of the authoritarian personality. **[3 marks]**
- 2) Explain **one** criticism of Adorno's theory of the authoritarian personality. **[4 marks]**
- 3) Describe **one** dispositional factor affecting obedience. **[3 marks]**
- 4) What is meant by a 'dispositional factor' in relation to obedience? **[2 marks]**

# LESSON #7 – A STUDY OF PROSOCIAL BEHAVIOUR – PILIAVIN (1969)

## BYSTANDER BEHAVIOUR

The idea that the presence of others reduces the likelihood of help being offered in an emergency.

## PROSOCIAL BEHAVIOUR

Actions that are beneficial to other people, helping society such as helping an old lady cross the street.

### PILIAVIN ET AL. (1969) - PROSOCIAL BEHAVIOUR

KEY STUDY - IMPORTANT

#### AO1 DESCRIPTION

#### AO3 EVALUATION

**A** To see whether the appearance of a victim impacts whether they receive help or not.

**M** The victim (**confederate**) fell over on a subway in NYC. The participants were the people on the subway and they were observed to see whether the victim was helped or not.

**R** When the victim appeared disabled, he was helped 95% of the time. When he appeared drunk, he was helped 50% of the time. People offered help quicker when the victim was disabled in comparison to drunk.

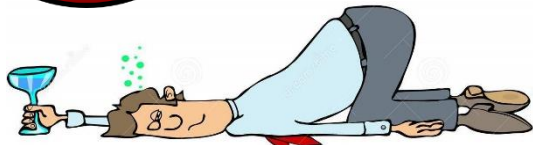
**C** The appearance of a victim influences whether they receive help or not.

The study took place in a natural setting (on a NYC subway). This is a strength because the participants' behaviour would have been as close to real life as possible and there would be no demand characteristics.

The study took place a considerable amount of time ago (1969) This is a weakness because we can't be certain we would get similar results if the study was replicated as society has changed.

The participants were unaware their behaviour was being observed. This is a weakness because the participants couldn't give their consent to take part in the research otherwise it would have ruined it so the researchers broke ethical guidelines

KEY STUDY - IMPORTANT



#### EXAM PRACTICE #6

- 1) Describe the aim, method, results and conclusion of Piliavin's study of prosocial behaviour. [4 marks]
- 2) Evaluate Piliavin's study of prosocial behaviour. [4 marks]
- 3) Describe and evaluate Piliavin's study of prosocial behaviour. [9 marks]



**WHAT MAKES US HELP?**

**SOCIAL FACTORS** (You help because of the characteristics of the environment)



**PRESENCE OF OTHERS**

The more people there are, the less likely we are going to help.

We believe that someone else is going to help so we should just ignore the situation.

**EVALUATION**

One weakness of this explanation is that research (such as Piliavin) has found that the amount of people present doesn't impact whether we help or not.



**COST OF HELPING**

The cost of helping includes possible danger to yourself (i.e. helping a drunk person) and the effort/time it takes to help someone.

On the other hand, not helping might make you feel guilty. All of these influence whether we are likely to help. We also think about the rewards of helping (such as feeling good about it or money).

**EVALUATION**

One weakness of this explanation is that it ignores other factors such as whether the situation is an emergency.

**DISPOSITIONAL FACTORS** (You help because of your own characteristics, i.e. personality)

**SIMILARITY TO VICTIM**

We are more likely to help people who share similar characteristics to us (i.e. same gender, same race, same religion...)

**EVALUATION**

One strength of this explanation is that there is research supporting it. It was found that Manchester United fans were more likely to help someone if they were wearing a Manchester United shirt than a Liverpool shirt.



**EXPERTISE**

Someone with special knowledge (i.e. medical) will be more likely to help in an emergency as they know what to do and feel more confident in helping.

**EVALUATION**

One weakness of this explanation is that several people still offer help even if they don't know what to do.



**EXAM PRACTICE #7**

CPAGETT 18/19

- 1) Explain what is meant by the term 'bystander behaviour'. [2 marks]
- 2) A study was conducted by a psychologist to investigate dispositional factors in bystander behaviour. The psychologist recruited football fans and asked them individually to walk across the college campus to another room. On the way they saw a runner who had fallen over and appeared to have hurt himself. Sometimes the runner was dressed as a football fan and sometimes he was dressed in ordinary clothes. Use your knowledge of bystander behaviour to explain the results the psychologist is likely to find. [3 marks]
- 3) Explain how the cost of helping can be used to explain bystander behaviour. [3 marks]





**DEINDIVIDUATION/CROWD BEHAVIOUR**

An individual loses their identity and takes on the identity of a group. This makes them more likely to be antisocial as they are at less risk of being identified and 'everyone else' is doing it!

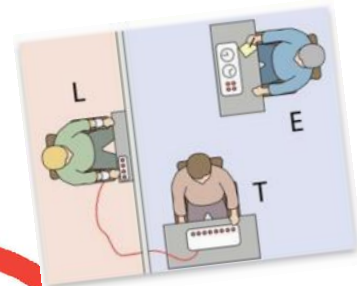


**ZIMBARDO (1969) - CROWD BEHAVIOUR**

	<b>AO1 DESCRIPTION</b>	<b>AO3 EVALUATION</b>
A	To see whether deindividuation impacts whether someone hurts someone.	<p><i>A weakness of ZimbarDO's research is that the participants were volunteers. This is a weakness because ZimbarDO would have ended up with extroverts who are willing to take part in research. We can't say for certain that other personality types would react in the same way.</i></p>
M	ZimbarDO copied Milgram's electric shock study but changed a few parts: All the participants were female. <b>Group 1</b> - participants wore their own clothes and had large name tags on. <b>Group 2</b> - participants wore a large coat and a hood that hid their face.	
R	Participants in group 2 were more likely to give the learner a shock because they didn't feel responsible for their actions.	<p><i>A weakness of ZimbarDO's research is that it only used female participants. This is a weakness because we cannot generalise the findings to males. We cannot say that males would have reacted in the same way. The study is gynocentric.</i></p>
C	Anonymity and deindividuation increases the likelihood that people will act antisocially.	<p><i>A weakness of ZimbarDO's research is that some participants might have realised it was fake. This is a weakness because if the participants realised the study was fake, they would show demand characteristics (impressing the researcher by changing behaviour).</i></p>

**EXAM PRACTICE #8**

- 1) Describe the aim, method, results and conclusion of ZimbarDO's study of crowd behaviour. **[4 marks]**
- 2) Evaluate ZimbarDO's study of crowd behaviour. **[4 marks]**
- 3) Describe and evaluate ZimbarDO's study of crowd behaviour. **[9 marks]**
- 4) Describe what participants were asked to do in a study investigating the effect of deindividuation on antisocial behaviour. **[2 marks]**



**WHAT MAKES US CHANGE IN A GROUP?**

**SOCIAL FACTORS** (You change because of the characteristics of the environment)

**DISPOSITIONAL FACTORS** (You change because of your own characteristics, i.e. personality)

**SOCIAL LOAFING**

We behave differently in a group when it comes to a task. If we are doing a group task, we will put less effort in than if we were doing the task by ourselves.

**EVALUATION**

One weakness of this explanation is that people put equal amounts of efforts into creative tasks (like mind maps) so this doesn't apply to all tasks.



**PERSONALITY**

People with an internal LOC are less likely to change their behaviour within a group as they are independent and have their own rules.

**EVALUATION**

A weakness of this explanation is that it is inappropriate to conclude whether someone is internal or external based on one questionnaire.



**CULTURE**

Our culture influences whether we change behaviour or not. Individualistic cultures (UK, Germany) are used to being independent whereas collectivist cultures (China, Japan) are used to working in groups. This means people who live in collectivist cultures are less likely to change their behaviours in a group because they are used to it.

**EVALUATION**

A weakness of this explanation is that we shouldn't make generalisations about whole cultures as people might vary within that culture.

**MORALS**

People with greater morals will be less likely to change their behaviour in a group because they are concerned about others.

**EVALUATION**

A strength of this explanation is that there is evidence of morality shown in Milgram's experiment. Someone stopped at 150v because he had high morals.



**EXAM PRACTICE #7**

- 1) Distinguish between deindividuation and social loafing. [3 marks]
- 2) Explain how morality affects crowd and collective behaviour. [3 marks]
- 3) What is meant by the term 'social loafing'? [2 marks]
- 4) Explain how personality affects crowd and collective behaviour. [3 marks]
- 5) Identify **two** dispositional factors that affect crowd and collective behaviour. [2 marks]




KEYWORD	DEFINITION
CONFORMITY	
SOCIAL FACTORS	
DISPOSITIONAL FACTORS	
LOCUS OF CONTROL	
OBEDIENCE	
AGENCY THEORY	
AGENTIC STATE	
AUTONOMOUS STATE	
AUTHORITY	
CULTURE	
AUTHORITARIAN PERSONALITY	
COGNITIVE STYLE	
DISPLACEMENT	

KEYWORD	DEFINITION
BYSTANDER BEHAVIOUR	
PROSOCIAL BEHAVIOUR	
EXPERTISE	
ANTISOCIAL BEHAVIOUR	
CROWD BEHAVIOUR	
PROSOCIAL BEHAVIOUR	
SOCIAL LOAFING	

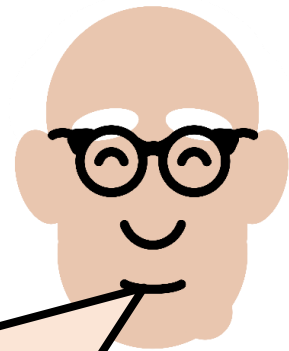
# TOPIC 6 – LANGUAGE

What do I need to know for the language topic?

Content	Additional information
<p>The possible relationship between language and thought</p> <p>The effect of language and thought on our view of the world</p>	<p>Piaget's theory: language depends on thought.</p> <p>The Sapir-Whorf hypothesis: thinking depends on language.</p> <p>Variation in recall of events and recognition of colours, eg in Native American cultures.</p>
<p>Differences between human and animal communication</p>	<p>Limited functions of animal communication (survival, reproduction, territory, food).</p> <p>Von Frisch's bee study.</p> <p>Properties of human communication not present in animal communication, eg plan ahead and discuss future events.</p>
<p>Non-verbal communication</p>	<p>Definitions of non-verbal communication and verbal communication.</p> <p>Functions of eye contact including regulating flow of conversation, signaling attraction and expressing emotion.</p> <p>Body language including open and closed posture, postural echo and touch.</p> <p>Personal space including cultural, status and gender differences.</p>
<p>Explanations of non-verbal behaviour</p>	<p>Darwin's evolutionary theory of non-verbal communication as evolved and adaptive.</p> <p>Evidence that non-verbal behaviour is innate, eg in neonates and the sensory deprived.</p> <p>Evidence that non-verbal behaviour is learned. Yuki's study of emoticons.</p>

#	Content			
1	Language and thought: Piaget's theory AO1 + AO3			
2	Language and thought: Sapir-Whorf hypothesis AO1 + AO3			
3	Language and thought: Our view of the world			
4	Human and animal communication: Von Frisch (1967)			
5	Human and animal communication: Von Frisch (1967) – AO3			
6	Human vs. animal communication			
7	Non-verbal communication: Eye contact			
8	Non-verbal communication: Body language			
9	Non-verbal communication: Personal space			
10	Non-verbal behaviour: Darwin's evolutionary theory			
11	Non-verbal behaviour: Innate or learned?			
12	Non-verbal behaviour: Yuki (2007)			
13	Non-verbal behaviour: Yuki (2007) – AO3			





**LANGUAGE**

The method of human communication, either spoken or written, consisting of the use of words in a structured way.

**THOUGHT**

An idea or opinion produced by thinking or occurring suddenly in the mind.

**HOW DOES THOUGHT LEAD TO LANGUAGE?**

A schema is a mental structure containing info we have about one aspect of the world. For example, a child might develop a schema for a thing that barks and has four legs. It is only after sometime that the child learns the schema has a name (a dog). Children develop language by matching words to their existing knowledge. The child understands the concept first and then they learn the words.

**CAN CHILDREN UNDERSTAND ALL WORDS?**

Piaget said children can only understand words when they are ready. They need to be at the right stage of cognitive development. If they learn a word they are not ready for, they are just like a parrot - repeating words they don't understand.

**HOW DOES LANGUAGE DEVELOP?**

Children only begin to speak towards the end of their first year (sensorimotor stage). Before this time, they are developing schema. In the second stage (pre-operational), language makes rapid progress. They talk about things such as **their** future and **their** feelings. In the third stage (concrete operational), language becomes mature and logical. They can consider the views of others and they question, criticise and come up with new ideas.

**EXAM PRACTICE #1**

- 1) Identify **two** features of Piaget’s views on language. **[2 marks]**
- 2) Young children only start to speak after the age of one. Explain what kind of thinking takes place without language. **[2 marks]**
- 3) Outline in what way, according to Piaget, language depends on thought. **[3 marks]**
- 4) Piaget said that children could be taught new words before they know what the words represent but they wouldn’t really understand the words. Explain what this tells us about language and thought. **[2 marks]**

**AO3 EVALUATION**

Children show understanding of the words they use as their talk is not at random (i.e. they might say “Mommy sock” to show the sock is owned by their mom. This shows language is used when schema are there.

It is really difficult to prove Piaget’s theory as we can’t know for certain whether someone has a schema or not.

Sapir & Whorf would suggest the opposite and would say that language comes before thought - we only think about language available to us. This is a weakness of the theory as it’s conflicting evidence.

Sapir and Whorf said it was impossible to think about something without having the words for it. They suggest we only start to think about things that we have the words to think about them. However, there is an argument as to whether words influence our thoughts or words determine our thoughts.



**WORDS DETERMINE OUR THOUGHTS (STRONG EFFECT)**

If a language has no words for a certain thought/object/idea, people who speak that language will have no way of thinking about it.

This is why it can be very difficult to translate some words and ideas from one language to another.

It was found that one Inuit (Eskimo) language had 27 words for snow! This shows they are able to think about snow in many different ways but English speakers just see snow as snow.



**WORDS INFLUENCE OUR THOUGHTS (WEAK EFFECT)**

Language influences the way in which people think about things but it doesn't completely determine what they think.



**EXAM PRACTICE #2**

- 1) Outline the Sapir–Whorf hypothesis. **[3 marks]**
- 2) Use your knowledge of the Sapir–Whorf hypothesis to explain the way language develops. **[6 marks]**
- 3) Identify **three** features of the Sapir–Whorf hypothesis. **[3 marks]**
- 4) Explain one criticism of the Sapir–Whorf hypothesis. **[3 marks]**

**A03 EVALUATION**

*Differences between cultures may have been exaggerated. There are really only two words for snow in Inuit culture and actually English has other words for different types of snow. This shows that the differences aren't that big and challenges the conclusion that language may determine thought.*

*Piaget would suggest the opposite and would say that thought comes before language. This is a weakness of the theory as it's conflicting evidence.*



**COLOURS - BROWN & LENNEBERG (1954) - NEW MEXICO**

Zuni people have only one word for shades of yellow and orange and had difficulty recognising and recalling these colours compared to English speakers. This suggests that their lack of words for those two colours affected their ability to distinguish between them.

**EVALUATION**

A weakness with research on different cultures is that there are issues with the interpretation of participants' responses. The language barrier could have affected how well the Zuni people communicated their understanding of colour to the researchers.

**COLOURS - ROBERTSON ET AL. (2000) - NEW GUINEA**

Berinmo people of New Guinea had difficulty recalling and distinguishing between a variety of colours as they only have five words for different colours in their own language.

**EVALUATION**

A weakness is that some researchers have found the opposite.

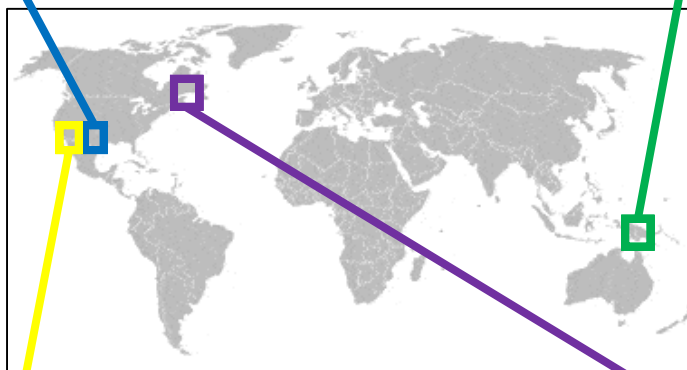
The Dani people have only two words for colour but were still as good as English-speaking participants on a colour-matching task

This suggests that their lack of colour words did not influence their ability to think about colour.

**EXAM PRACTICE #3**

1) Outline how language affects the recall of events in two cultures. [4 marks]

2) Describe and evaluate variation in recognition of colours. [6 marks]



**EXAM PRACTICE #3**

1) Psychologists have studied the recognition of colour in different cultures. Describe **one** finding from such research. [3 marks]

2) Outline **two** evaluations of studying the variation in recall of events in different cultures. [4 marks]

**EVENTS - WHORF - HOPI TRIBE**

Hopi language doesn't distinguish between past, present and future. Rather than saying "I left after a week", Hopis would say "I left on the seventh day".

Hopi Indians are unable to refer to time passing and therefore this influences the way they think about time.

**EVALUATION**

A weakness is that Whorf's research can't be generalised due to its small sample size.

For example, Whorf only studied one individual to come to this conclusion. This means we can't generalise the results to other people.

**EVENTS - CARMICHAEL ET AL. (1932)**

Two groups of participants were shown the same pictures but each group heard different descriptions. When they were asked to draw them, the pictures drawn reflected the labels they had heard. This suggests that language influences our memory of what has happened.

**EVALUATION**

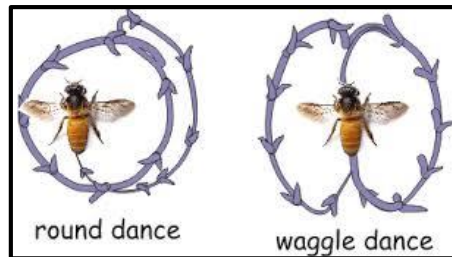
A weakness is that this research was conducted a very long time ago, meaning it is out-dated. If the study was replicated, there might be different results as people might be more/less influenced today.





**ANIMAL COMMUNICATION**

Exchange of information between animals within the same species using a variety of signals such as vocal or visual.



**VON FRISCH (1967)**

**KEY STUDY - IMPORTANT**

**AO1 DESCRIPTION**

**AO3 EVALUATION**

A	To see how bees communicate information to each other.
M	He put food sources close to the hive as well as far away. If a bee visited a food source, he would mark it with paint. He then observed their behaviour at the hive.
R	Worker honey bees tell other bees where the pollen is by displaying one of two dances. <b>Round dances</b> - for food less than 100 metres away, the bees moves around in a circle. <b>Waggle dances</b> - for food more than 100 metres away, the bee moves around in a figure of 8 shape. It waggles on the 'straight' section. The slower the dance, the further away the pollen is. After watching a dancing bee, 60% of the bees watching went to find the food sources.
C	Bees have a sophisticated form of animal communication. The bees' signalling system has evolutionary value because it helps survival.

*A strength is that Von Frisch's work made an important contribution to science. People knew that bees danced but had no understanding of the meaning of the movements. This shows how valuable his research was, he even won a Nobel prize.*

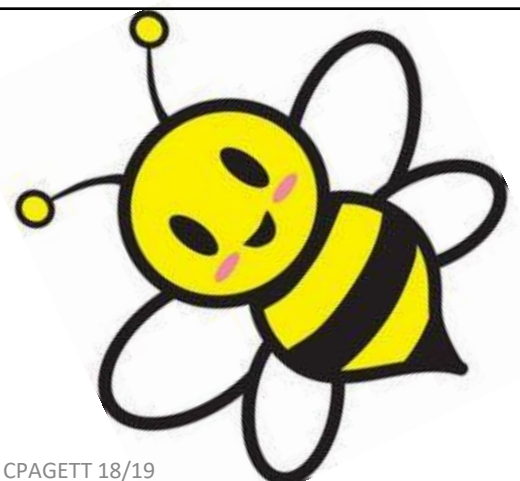
*A weakness is that the importance of sound was overlooked. Another researcher found that when bees performed dances in silence, other bees would not then go on and investigate food source. This shows that sound-based signals also play a part in directing other bees - something that Von Frisch ignored.*

*Another weakness is that bees do not always respond to the waggle dance. The bees only responded to the dances 60% of the time. This shows that Von Frisch's account was incomplete.*

**KEY STUDY - IMPORTANT**

**EXAM PRACTICE #4**

- 1) Describe the aim, method, results and conclusion of Von Frisch's study of animal communication. **[4 marks]**
- 2) What is meant by the term 'animal communication'? **[2 marks]**
- 3) Describe and evaluate Von Frisch's study of animal communication. **[9 marks]**



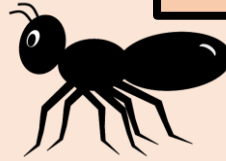


What are the **four** reasons why animals communicate?

**TERRITORY**

Animals mark their territory using scent marking. They spread their urine, faeces or other scents to discourage other animals from invading their territory.

Rhinos lay their dung in piles to mark their territory and they also drag their feet through a pile of poo to mark out a path!



**FOOD**

Animals use signals to draw attention to food sources. Bees use the round dance and the waggle dance to show other bees where the food source is. Ants leave a pheromone (scent) trail enabling other ants to find their way to the food.

**SURVIVAL**

Monkeys produce specific sounds that warn other monkeys of dangers, known as alarm calls.

If a monkey sees any of its predators (i.e. a leopard) they will produce a sound to warn others. Rabbits will pin their ears back and leap forward to warn other rabbits of any danger.



**REPRODUCTION**

Animals use mating displays to signal to other members that they want to reproduce. The male peacock stretches out its feathers like an umbrella to reveal a colourful pattern. The brighter the feathers, the healthier the peacock and therefore the more likely it will attract a mate.



What can **humans** do that **animals** can't?

Plan ahead and discuss future events	Humans can use their language to plan ahead and discuss future events (displacement) whereas animal communication tends to focus on things that are physically present in the environment, such as food sources or predators.
Creativity	Human language is an open system as words can be combined together in an infinite number of ways through the sentences we use whereas animal communication involves a closed system as the gestures, sounds and movements only refer to very specific events.
Single versus multiple channels	Human language can be expressed using a whole range of different channels such as spoken, written or sign language and all of the different types of social media whereas animal communication uses single channels (i.e. pheromones).

**EXAM PRACTICE #5**

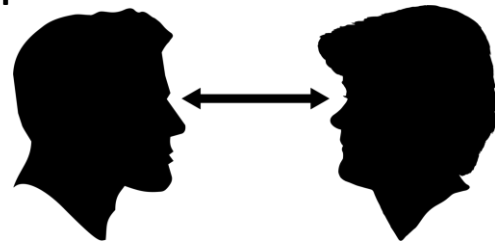
- 1) With reference to a specific type of animal, explain how they communicate about territory. [3 marks]
- 2) Give **one** example of how animals communicate in relation to reproduction. [3 marks]
- 3) Explain **one** difference between animal and human communication. [3 marks]





## EYE CONTACT

When two people look at each other's eyes at the same time. It has a number of roles.

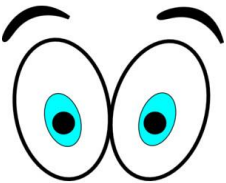


### 1. CONVERSATION FLOW

Eye contact makes conversations run smoothly as it gives the other person feedback about how interested you are in the conversation. Kendon (1967) found that eye contact encourages 'turn-taking' in conversation. If it didn't happen, there were awkward pauses on the conversation.

### 2. SIGNALLING ATTRACTION

Eye contact is used to communicate our attraction to someone. Our level of eye contact might increase when we are talking to someone we like. Conway (2007) found that people who maintain eye contact are judged to be more attractive than people who do not. It is an evolutionary behaviour that shows a potential mate you are attracted to them.



### 3. EXPRESSING EMOTION

Eye contact can be used to show others how we are feeling. Adams and Kleck (2005) found that participants judge joy and anger most intense when there was a direct gaze. Fear and sadness were most intense when there was an averted gaze. This suggests we use eye contact in different ways to express how intense our emotions are.

## AO3 EVALUATION

Research into eye contact often uses rating scales to make judgements. Asking someone to rate attractiveness isn't an accurate measurement as everyone sees attractiveness differently.

Research into eye contact makes generalisations about how we use it in everyday life based on research. This is a weakness because not everyone uses eye contact in the same way as there are individual differences.

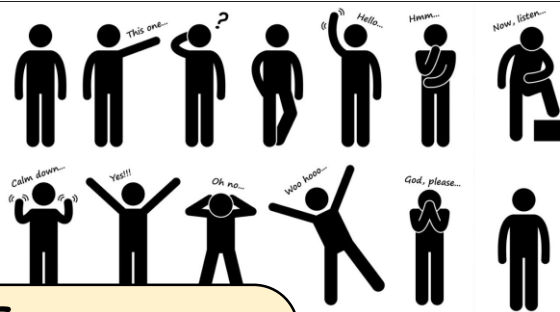
## EXAM PRACTICE #6

- 1) What is meant by 'eye contact'? [2 marks]
- 2) Explain **two** functions of eye contact. [4 marks]
- 3) A father and son are making eye contact when having a conversation. Explain **one** function of such eye contact. [3 marks]



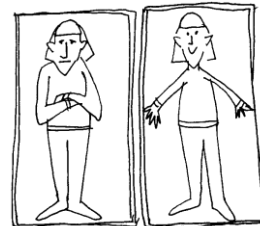
## BODY LANGUAGE

The way in which attitudes and feelings are communicated to others through unspoken movements and gestures.



## OPEN AND CLOSED POSTURE

Posture is the way someone positions their body during a social interaction. An open posture is relaxed and shows approval or acceptance whereas a closed posture shows rejection or disagreement. McGinley et al. (1975) found that using an open posture when discussing view points means others are more likely to agree with you.



## POSTURAL ECHO

Postural echo is when you copy or 'mirror' someone's body position whilst talking to them.

Tanner and Chartrand (2006) found that using postural echo means that others are likely to experience positive feelings towards you

## TOUCH

We use touch to flirt, express friendship and show dominance by shaking hands, high fiving, slapping someone and so on. Fisher et al. (1976) found that touch can affect our attitudes towards other people.



## AO3 EVALUATION

Research into body language is often conducted without the participant's consent. This is a weakness as it breaks many ethical guidelines such as informed consent or right to withdraw.

Research into body language makes generalisations about how we use it in everyday life. This is a weakness because not everyone uses body language in the same way as there are individual differences. Someone might like being touched whereas others don't.

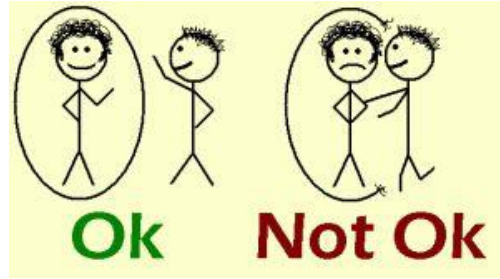
## EXAM PRACTICE #7

- 1) Using your psychological knowledge, describe how you could use body language to give a positive impression of yourself when meeting someone for the first time. **[4 marks]**
- 2) What is meant by 'non-verbal communication'? **[2 marks]**
- 3) Imagine that you are going to conduct a study to investigate the effect that touch has on how much someone is liked. Use your knowledge of psychology to describe: A suitable hypothesis you could use, how you will conduct your study and the results you would expect to find in your study. **[6 marks]**



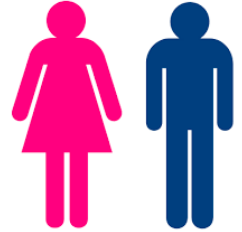
### PERSONAL SPACE

An invisible 'bubble' that surrounds each individual. The size of the bubble depends on gender, culture and status differences. If our bubble is invaded, we can feel uncomfortable.



### GENDER DIFFERENCES

Men prefer a large distance when interacting with other men while women prefer a shorter distance when interacting with other women. Men prefer to sit opposite while women prefer to sit side by side. Fisher and Byrne (1975) found that men feel stressed if personal space is invaded from the front while women feel stressed if it's from the side.



	Country	Distance
1	Romania	1.39m
2	Hungary	1.30m
3	Saudi Arabia	1.26m
4	Turkey	1.23m
5	Uganda	1.21m
6	Pakistan	1.19m
7	Estonia	1.18m

### CULTURE DIFFERENCES

There are different cultural norms for personal space. Sommer (1969) found that English people prefer a personal space of 1-1.5m whereas Arab people prefer to be closer.

### STATUS DIFFERENCES

Status is someone's rank/position within a society. For example, two teachers have a similar status whereas a student and a head teacher have a different status. Zahn (1991) found that people who have an equal/similar status stand closer than people who have a different status.



### AO3 EVALUATION

Personal space rules make it unclear about what to do in some situations. If a woman is talking to another woman who is of a higher status than her, should she stand close or far away?

Research into personal space makes generalisations about how much distance we prefer. This is a weakness because the research doesn't represent everyone. Some English people might prefer to be stood more than 1.5m away from others.

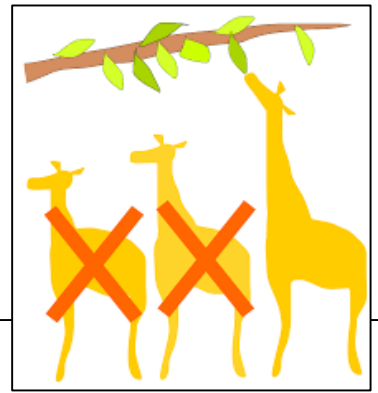
### EXAM PRACTICE #8

- 1) Outline the way gender differences affect personal space. [3 marks]
- 2) Identify one fact about personal space from psychological research and say how you could use this in an everyday situation. [3 marks]
- 3) Explain **one** criticism of research into personal space. [3 marks]



## EVOLUTION

The theory that animals have adapted to their environment over millions of years. These adaptations increase the chances of survival and are therefore passed onto the next generation.



### How has non-verbal communication been passed on?

Non-verbal communication has evolved in animals so they can effectively express their emotions. These features are adaptive as they promote survival (i.e. scaring away predators).

Darwin states that humans and non-humans have similar behaviours. We might wrinkle our nose when we see/smell something disgusting. This allows us to avoid breathing in something potentially dangerous.

These are called **serviceable habits**. These are things that would have been adaptive to our animal ancestors because they promote survival but not humans have developed language we can express emotions without non-verbal communication.



A lion shows its teeth when it is warning away other animals. A human shows anger by showing their teeth.



A robin shows puffs out its chest to make itself look bigger to warn others away. A human puffs out their chest in confrontation.

## AO3 EVALUATION

Darwin's theory is supported by research into facial expressions. Surprise, fear, disgust, anger, happiness and sadness are recognised in every culture. This is a strength because it suggests these emotions are universal (all over the world) and therefore in our biology.

Darwin's theory is supported by research of newborn babies. Babies do not need to learn facial expressions or eye contact when interacting. This is a strength because it suggests NVC is present at birth and therefore in our biology.

Darwin's theory doesn't explain cultural differences. Some parts of non-verbal communication aren't universal, such as personal space rules. This is a weakness because it suggests that some parts of NVC aren't in our biology, otherwise it would be the same in every culture.

## EXAM PRACTICE #9

- 1) What is meant by the term 'adaptive'? [2 marks]
- 2) Identify **three** features of Darwin's evolutionary theory. [3 marks]
- 3) Explain **two** ways that Darwin's evolutionary theory can be evaluated. [4 marks]

# LESSON #11 – NON-VERBAL BEHAVIOUR: INNATE OR LEARNED?

## WE ARE BORN WITH NON-VERBAL COMMUNICATION (IT IS INNATE)

### NEONATES

Bowlby (1969) suggested neonates (newborn babies) are born with social releasers. These are non-verbal behaviours such as smiling. This suggests NVC is innate.



### NEONATES

Rosenstein and Oster (1988) found that babies show a disgusted facial expression when given something sour to taste, suggesting NVC is innate.

### SENSORY DEPRIVED

Children born blind have been found to show facial expressions such as surprise and other non-verbal behaviours such as sulking. This suggests NVC is innate.

## WE LEARN NON-VERBAL COMMUNICATION (WE DEVELOP IT)

### CONTACT VS. NON-CONTACT

Hall (1966) stated that countries such as Italy, Spain and Brazil are contact cultures whereas the UK and USA are non-contact cultures. People from contact cultures prefer a small personal space whereas non-contact culture prefer a larger one. This suggest NVC is develop through the environment we live in.



### GESTURES

Black (2011) states that pointing your finger is interpreted differently in different cultures. In Western cultures, it is acceptable whereas in Hindu culture it is offensive. It's the same for the "OK" hand gesture - in Europe it means "OK" but in Japan it means "money"!

## EXAM PRACTICE #10

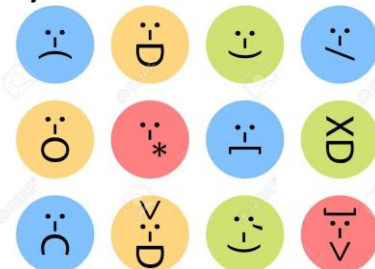
- 1) Outline evidence that non-verbal behaviour is learned. [4 marks]
- 2) What is a 'neonate'? [1 mark]
- 3) Distinguish between what psychologists mean by behaviour being innate and learned. [3 marks]
- 4) Explain how research into the 'sensory deprived' can be used to support the theory that non-verbal behaviour is innate. [4 marks]





**EMOTICON**

A combination of the words **emotion** and **icon**.  
It is a non-verbal way of expressing mood or emotion within written communication.



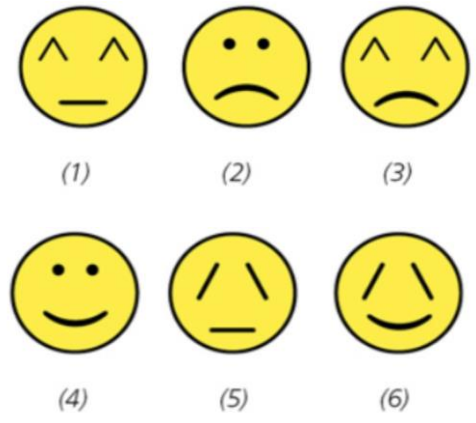
**YUKI (2007)**

**KEY STUDY - IMPORTANT**

	<b>AO1 DESCRIPTION</b>	<b>AO3 EVALUATION</b>
<b>A</b>	To find out if there is a difference in how emoticons are understood by people in the East (Japan) and the West (America).	<p><i>A weakness is that emoticons may not represent human facial expressions. Emoticons do not include those tell-tale lines on people's faces which give us further information of how to interpret their eyes and mouth. This means the results of the study may lack relevance to everyday life.</i></p>
<b>M</b>	95 students from Japan and 118 students from America - an independent groups design. Six emoticons were shown with different combinations of eyes and mouths (sad, happy or neutral). Participants rated them for happiness using a 9-point scale.	
<b>R</b>	Japanese gave higher ratings to faces with happy eyes than the Americans, even when the mouth was sad. Americans gave higher ratings when mouths were happy even when the eyes were sad.	<p><i>Another weakness is the study only investigated two types of emotion (happy and sad). In everyday life, faces express a whole range of emotions - fear, surprise, disgust, etc. Therefore the study does not give us insight into how the full range of emotional expressions are interpreted by people of different cultures.</i></p>
<b>C</b>	This suggests that cultural groups interpret facial expressions differently which may be due to cultural norms and expectations.	<p><i>A final weakness is that rating scales may not be the best method of measurement. Emotions are very complex and rating scales reduce emotion to a single score. Therefore Yuki et al. may have measured the interpretation of emotions in too simple a way.</i></p>

**KEY STUDY - IMPORTANT**

**EXAM PRACTICE #11**  
1) Describe the aim, method, results and conclusion of Yuki's study. **[4 marks]**  
2) Describe and evaluate Yuki's study of cultural differences. **[9 marks]**






KEYWORD	DEFINITION
SCHEMA	
SAPIR-WHORF HYPOTHESIS	
ANIMAL COMMUNICATION	
LANGUAGE	
THOUGHT	
VERBAL COMMUNICATION	
NON-VERBAL COMMUNICATION	
EYE CONTACT	
BODY LANGUAGE	
OPEN POSTURE	
CLOSED POSTURE	
POSTURAL ECHO	
GENDER	

KEYWORD	DEFINITION
CULTURE	
STATUS	
PERSONAL SPACE	
ADAPTIVE	
EVOLUTIONARY THEORY	
SERVICEABLE HABITS	
INNATE	
NEONATE	
SENSORY DEPRIVED	
EMOTICONS	

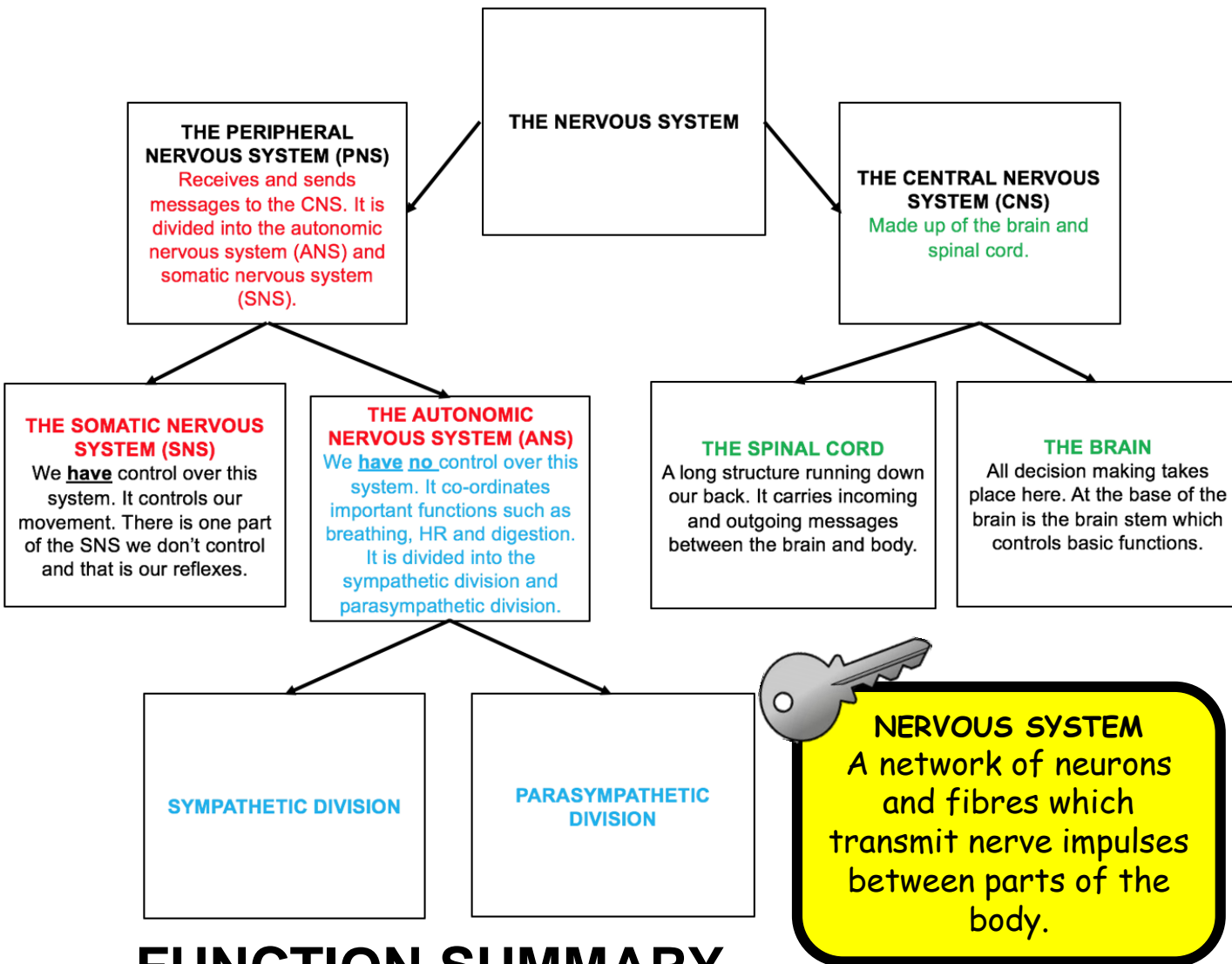
# TOPIC 7 – NEUROPSYCHOLOGY

What do I need to know for the neuropsychology topic?

Content	Additional information
Structure and function of the nervous system	The divisions of the human nervous system: central and peripheral (somatic and autonomic), basic functions of these divisions.  The autonomic nervous system and the fight or flight response. The James-Lange theory of emotion.
Neuron structure and function	Sensory, relay and motor neurons. Synaptic transmission: release and reuptake of neurotransmitters. Excitation and inhibition. An understanding of how these processes interact.  Hebb's theory of learning and neuronal growth.
Structure and function of the brain	Brain structure: frontal lobe, temporal lobe, parietal lobe, occipital lobe and cerebellum.  Basic function of these structures.  Localisation of function in the brain: motor, somatosensory, visual, auditory and language areas.  Penfield's study of the interpretive cortex.
An introduction to neuropsychology	Cognitive neuroscience: how the structure and function of the brain relate to behaviour and cognition.  The use of scanning techniques to identify brain functioning: CT, PET and fMRI scans.  Tulving's 'gold' memory study.  A basic understanding of how neurological damage, eg stroke or injury can affect motor abilities and behaviour.

#	Content			
1	Structure and function of the nervous system			
2	The autonomic nervous system			
3	The James-Lange theory of emotion			
4	Neuron structure and function			
5	Hebb's theory of learning and neuronal growth			
6	Structure and localisation of function in the brain			
7	A study of the interpretive cortex: Penfield (1959)			
8	A study of the interpretive cortex: Penfield (1959) – AO3			
9	Scanning techniques to identify brain functioning			
10	A study of localisation: Tulving (1989)			
11	A study of localisation: Tulving (1989) – AO3			
12	An introduction to neuropsychology: cognitive neuroscience			

# LESSON #1 – STRUCTURE AND FUNCTION OF THE NERVOUS SYSTEM



## FUNCTION SUMMARY

CNS	Made up of the brain and spinal cord.
BRAIN	All decision making takes place here. At the base is the brain stem which controls basic functions.
SPINAL CORD	Long structure running down our back. It carries incoming & outgoing messages between brain & body.
PNS	Receives and sends messages to the CNS. It is divided into the ANS and the SNS.
ANS	We <b>have no</b> control over this system. It co-ordinates functions such as breathing, HR and digestion.
SNS	We <b>have</b> control over this system. It controls our movement.

### EXAM PRACTICE #1

- 1) Explain the function of the somatic nervous system. **[3 marks]**
- 2) Draw a diagram showing how the nervous system is structured. Include the following in your diagram: somatic nervous system, peripheral nervous system, central nervous system and autonomic nervous system. **[4 marks]**
- 3) Explain the function of the central nervous system. **[3 marks]**



# LESSON #2 – THE AUTONOMIC NERVOUS SYSTEM

## HOMEOSTASIS

The ANS is responsible for controlling homeostasis. This is the process by which the body maintains a constant, balanced state. One example is carbon dioxide in the blood. The level of always just right as it is carefully controlled through breathing. The ANS keeps our body working by controlling vital glands, muscles and organs.

## AUTOMATIC AUTONOMIC

Our ANS cannot be controlled by us. Actions such as breathing and our hearts beating are required for survival and therefore it is important.

## TWO DIVISIONS

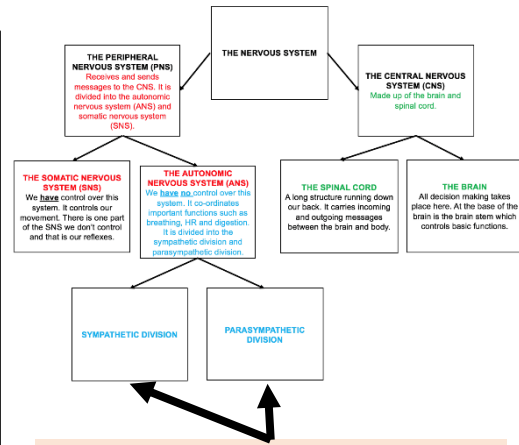
Our ANS is divided into the sympathetic and parasympathetic nervous system. One of them is always activated but they both cannot be activated at the same time.

## SYMPATHETIC NERVOUS SYSTEM

This is when the body is in a state of physiological arousal preparing the body for fight or flight.

## PARASYMPATHETIC NERVOUS SYSTEM

This is when the body is in a state of rest as there is no threat to us.



When **threatened**, our **sympathetic** division is activated. When **resting**, our **parasympathetic** division is activated.

## HOW DOES THE FIGHT/FLIGHT RESPONSE WORK?

### 1. BRAIN DETECTS THREAT

Our hypothalamus identifies the threatening event (perhaps someone jumped out at you) and tells the sympathetic division of the ANS to act.

### 2. ADRENALINE RELEASED

The ANS changes from its normal resting state (parasympathetic) to a state of arousal (sympathetic state). This releases adrenaline into the bloodstream.

### 3. FIGHT OR FLIGHT RESPONSE

Physiological changes occur because of the adrenaline. Your heart rate increases, your pupils dilate (expand), digestion stops and saliva production is stopped. All these changes are designed to help us confront the threat (fight) or run away (flight).

### 4. THE THREAT HAS PASSED

The ANS changes from the state of arousal (sympathetic) back to resting (parasympathetic). Your heart rate slows down, your pupils constrict (narrow), digestion and saliva production resumes. This is the 'rest and digest' state.



## FIGHT OR FLIGHT

Immediate physiological response of an animal when in danger. The body becomes physically ready to fight the threat or run away from it (flight).



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## EXAM PRACTICE #2

1) You are walking home at night. It is very dark with no moon or stars visible in the sky. Suddenly you hear someone running behind you.

Explain the likely action of the autonomic nervous system. Refer to specific bodily changes that are likely to occur. [4 marks]

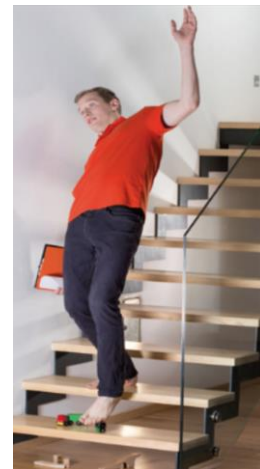
2) Identify **three** bodily changes that occur during the fight or flight response. [3 marks]

## LESSON #3 – THE JAMES-LANGE THEORY OF EMOTION

Think about the last time you experienced an extremely scary moment (i.e. almost falling down the stairs). You feel afraid and your body shows signs of panic, such as an increased heart rate.

**But what comes first..?**

The **emotion** (being afraid) or the **physiological changes** (increased heart rate)?



### **ANSWER:**

The James-Lange theory would argue that the physiological changes occur first which then cause an emotion!

**EVENT**

**AROUSAL**

**INTERPRETATION**

**EMOTION**

An **EVENT** (almost falling down the stairs) activates the hypothalamus which instructs the sympathetic division of the ANS.

This leads to the release of adrenaline which creates physiological **AROUSAL**. This increases our heart rate, etc.

Our brain then makes an **INTERPRETATION** about the physiological changes and decides how we then feel.

Depending on the interpretation, we then feel and **EMOTION**. This might be fear, excitement etc.

### **AN EXAMPLE:**

You are walking through the forest and see a grizzly bear. This causes your sympathetic division of the ANS to activate and release adrenaline. This then makes your heart rate increase and your pupils dilate. Your brain interprets these physiological changes as signs of fear and therefore that is the emotion you feel – **fear**.

### **AO3 EVALUATION**

*A weakness is that the theory is challenged by the Cannon-Bard theory. We experience some emotions (e.g. embarrassment) at the same time as physiological arousal and not one after the other. Therefore this theory can explain emotional situations that the James-Lange theory cannot.*

*A weakness is that the theory is challenged by the two-factor theory. We need arousal plus social cues to correctly label the emotion we are feeling. Therefore the James-Lange theory does not explain how a person 'decides' what emotion they are experiencing.*

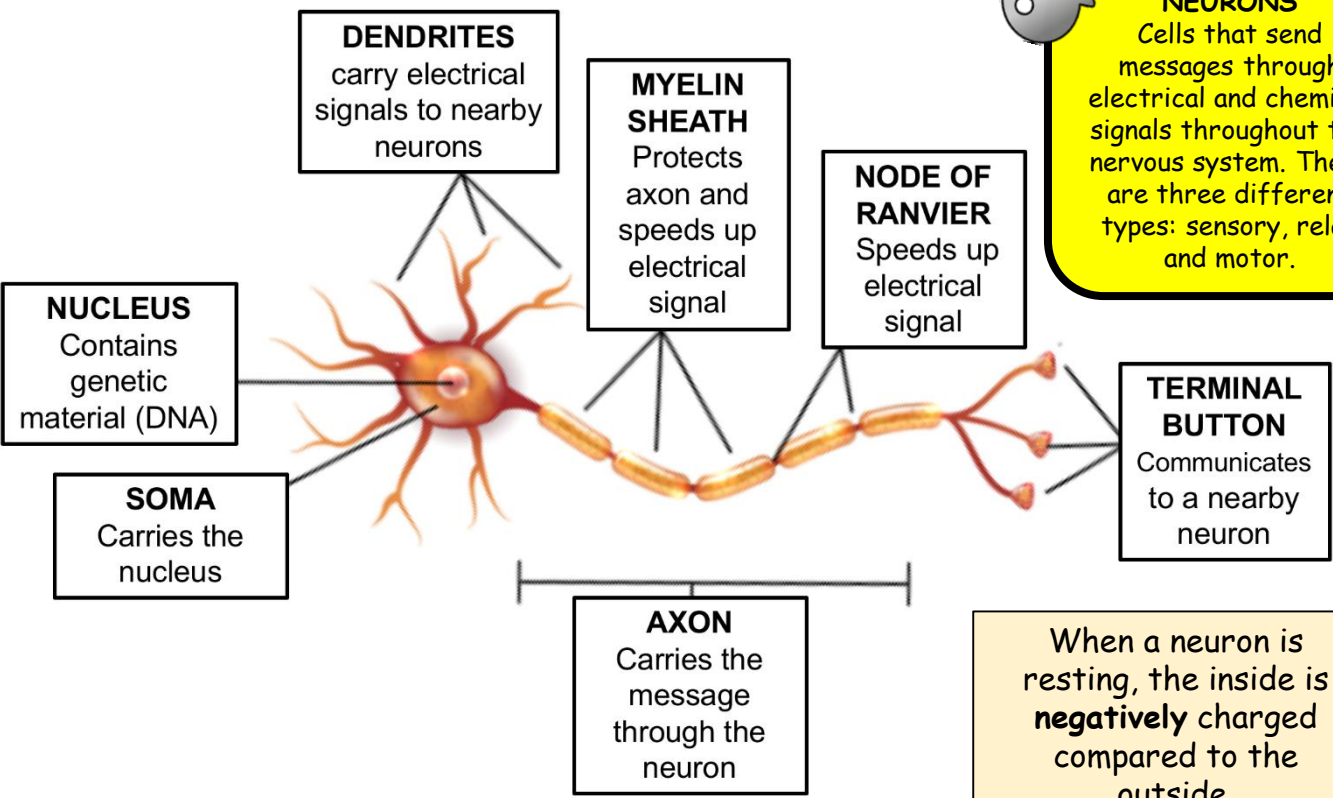
*A strength of the theory is real-life examples. A fear of public situations (phobia) can develop as a result of the anxiety (emotion) created from falling down in public. This shows that emotional responses such as fear are a result of physiological arousal like increased heart rate.*

### **EXAM PRACTICE #3**

- 1) The James-Lange theory of emotion has been criticised. Use your knowledge of psychology to evaluate this theory. **[5 marks]**
- 2) Outline the James-Lange theory of emotion. **[3 marks]**
- 3) Explain the role of the autonomic nervous system in the James-Lange theory of emotion. **[3 marks]**

# LESSON #4 – NEURON STRUCTURE AND FUNCTION

**NEURONS**  
Cells that send messages through electrical and chemical signals throughout the nervous system. There are three different types: sensory, relay and motor.



When a neuron is resting, the inside is **negatively** charged compared to the outside.

When a neuron fires, the electrical charge changes for a split second, causing an **action potential**.

This creates an electrical signal (impulse) that travels down the **axon** to the end of the neuron, ready to be passed into another neuron.

This process is called **synaptic transmission** and is on the next page.

SENSORY NEURONS	RELAY NEURONS	MOTOR NEURONS
Carries messages from receptors to CNS	Carries messages from sensory neurons to motor neurons	Carries messages from the CNS to effectors (muscles).
Long dendrites	Short dendrites	Short dendrites
Short axons	Short axons	Long axons

**EXAM PRACTICE #4**

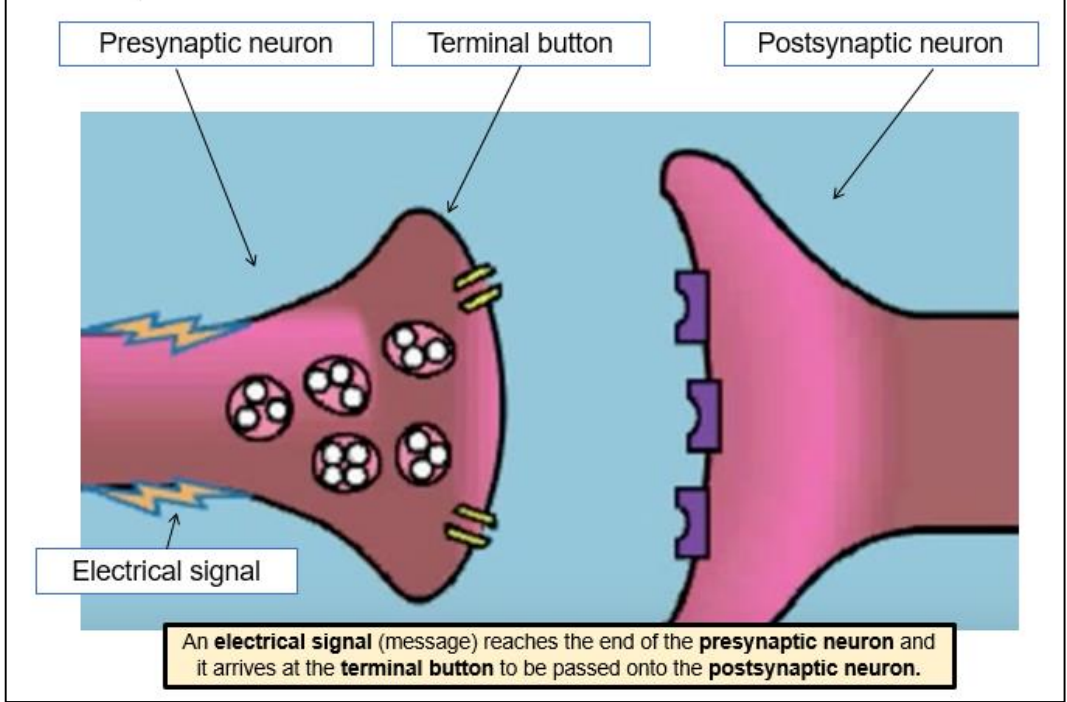
- 1) Explain the process of synaptic transmission. **[4 marks]**
- 2) Sketch a diagram which shows how synaptic transmission occurs. **[3 marks]**
- 3) Identify **three** types of neuron and explain the function of each. **[6 marks]**

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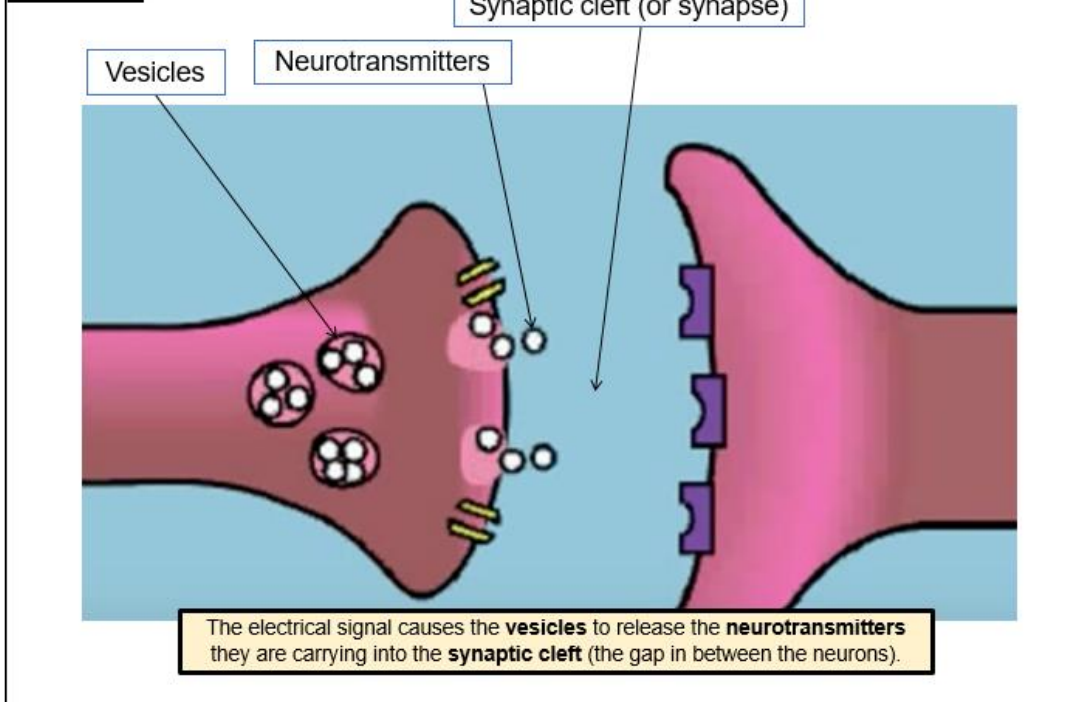


**SYNAPTIC TRANSMISSION**  
The way that neurons communicate with each other. It involves a message being passed chemically.

1

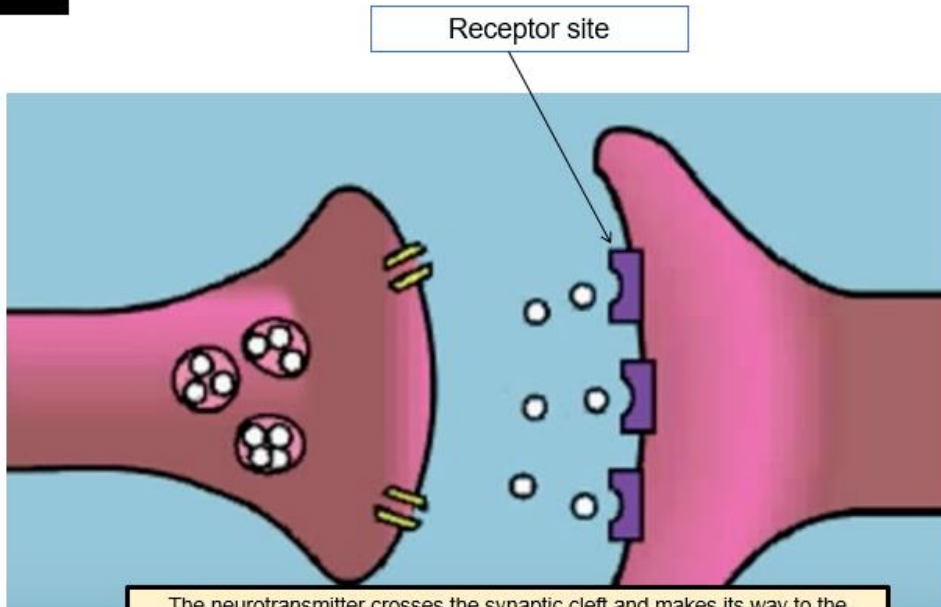


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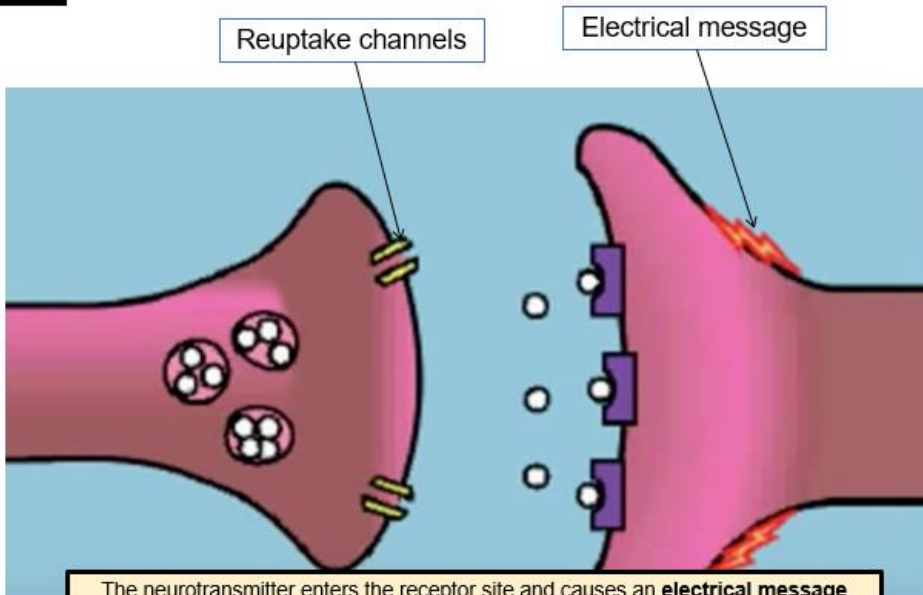


3



The neurotransmitter crosses the synaptic cleft and makes its way to the postsynaptic neuron. It can only enter the postsynaptic neuron if it fits into the **receptor site** on the postsynaptic neuron. For example, the neurotransmitter dopamine can only fit into the dopamine receptor sites.

4



The neurotransmitter enters the receptor site and causes an **electrical message** down the postsynaptic neuron, ready to be passed on to the next one. Any neurotransmitters that are left in the synaptic cleft might be broken down or reabsorbed by the presynaptic neuron (**reuptake channels**) so it can be used again.





According to Hebb, the brain never stops growing. As we learn new information, the brain **physically** changes.



Hebb believes that when we learn new information it creates new connections between neurons in the brain.

When we use our synaptic connections more frequently, they become stronger.

The brain can adapt, change and form new connections as we learn at any time, at any age with anything we are learning.

Learning leaves a temporary trace in the brain (known as an 'engram'), this trace can be made permanent if we continually practice the learning

During learning, groups of neurons (known as cell assemblies) fire together and make strong synaptic connections between them, this leaves behind a more efficient and effective brain.

### AO3 EVALUATION

A strength of Hebb's theory is that it is scientific. Hebb used brain scans and factual research to support his theory that the brain and synaptic connections change over time. This is a strength as factual research can be hard to disprove so it makes Hebb's theory hard to argue with. S&C: His research is objective.

A strength of Hebb's theory is that it has real life application. If our brain can adapt and change over time to develop our skills and knowledge, we can use this to our advantage and practice to ensure we improve. This is a strength because we can use the theory in everyday life.

### EXAM PRACTICE #5

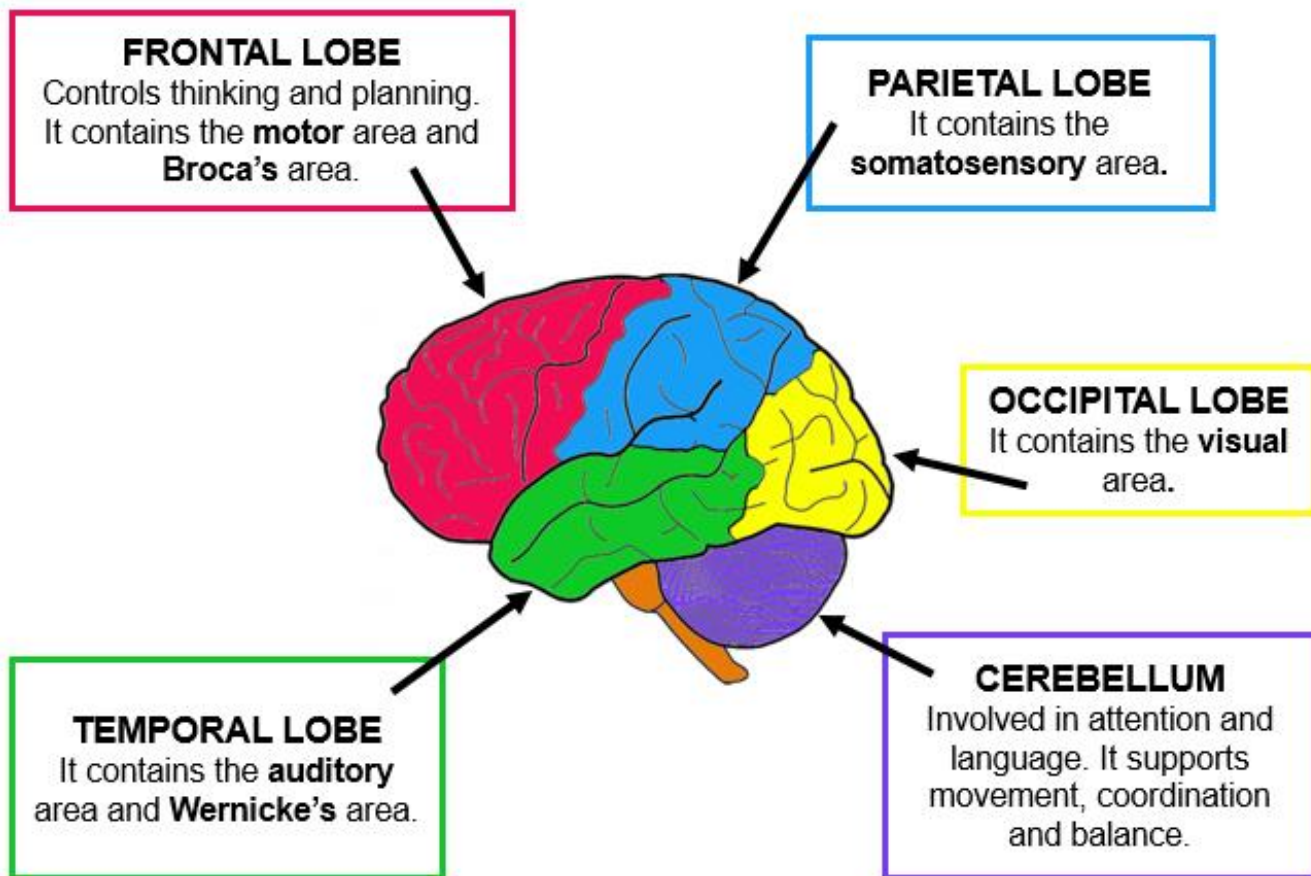
1) Outline Hebb's theory of learning. [3 marks]

2) Hebb's theory of learning has been criticised. Use your knowledge of psychology to evaluate this theory. [5 marks]

3) Explain what is meant by the term 'neuronal growth'. [2 marks]

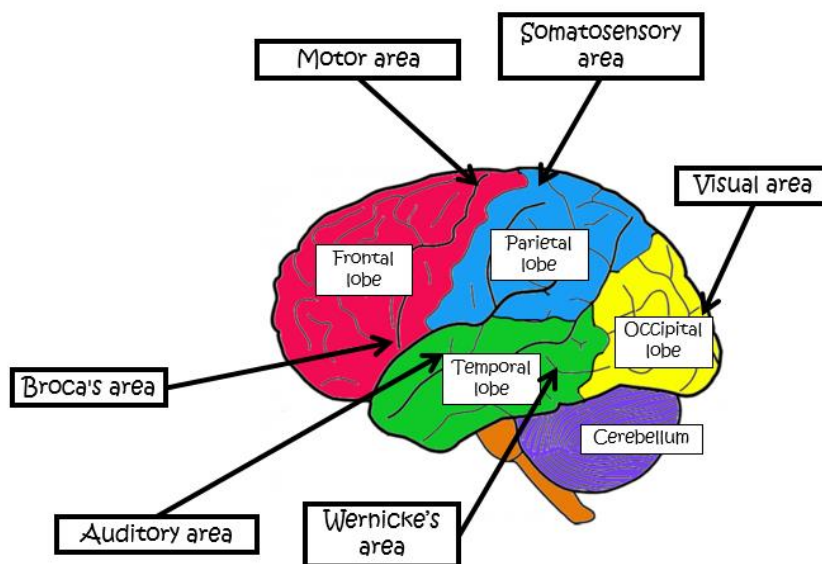
The brain is divided into two halves called **hemispheres**, known as left and right.  
The top surface layer of the brain is called the **cerebral cortex**. It is 1-2mm thick.

## STRUCTURE AND FUNCTION OF THE BRAIN



# LESSON #6 – STRUCTURE AND LOCALISATION OF FUNCTION IN THE BRAIN

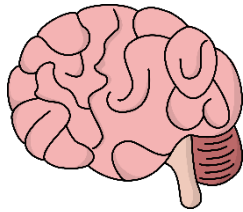
Brain area	Lobe	Function	Extra info
Motor area	Frontal lobe	The motor area in the left hemisphere controls movement on the right side of the body & vice versa.	Damage would lead to problems with movement.
Somatosensory area	Parietal lobe	Sensitive body parts take up the most 'space' in the somatosensory area. Our face and hands use over half the area.	Damage would mean you are less able to feel pain and temperature.
Visual area	Occipital lobe	The eye sends information to the visual area. Information in our right visual field goes to the visual area in the left hemisphere and vice versa.	Damage would lead to blindness.
Auditory area	Temporal lobe	Processes things we hear.	Damage would lead to partial or total hearing loss.
Broca's area	Frontal lobe	Produces speech.	Damage would lead to problems producing speech.
Wernicke's area	Temporal lobe	Understanding speech.	Damage would lead to problems understanding speech.



## EXAM PRACTICE #6

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- 1) Outline the difference between the parietal and occipital lobes. **[3 marks]**
- 2) Explain how knowledge about localisation of function has contributed to our understanding of behaviour. **[6 marks]**
- 3) Using an example, explain what is meant by the term 'localisation of function'. **[3 marks]**



## INTERPRETIVE CORTEX

An area of the temporal lobe where interpretations of memories are stored. It contains our emotions and feelings during certain times.

### PENFIELD (1959)

KEY STUDY - IMPORTANT

#### AO1 DESCRIPTION

#### AO3 EVALUATION

**A** To describe the responses patients gave when parts of their brain were electrically stimulated.

**M** Epileptic patients lay on an operating table whilst conscious. Penfield stimulated different areas of the brain using the and recorded patients' responses. This also treated their epilepsy. Over 30 years, Penfield did this more than 1,000 times.

A strength of Penfield's research is that it has benefitted neuroscience greatly. For example, Penfield was able to pinpoint exact brain locations for certain processes. This is a strength because neuroscience has developed considerably because of Penfield's work.

**R**

When the **visual area** was stimulated, patients said they could see colours, shadows and different objects.

When the **somatosensory area** was stimulated, it produced a tingling sensation.

When the **temporal lobe** was stimulated, patients described things they had experienced in the past and reported emotions they felt during that previous experience. It was a bit like déjà vu.

A weakness of Penfield's research is that there is contradictory research. For example, Penfield replicated his experiment but this time only 7% of participants reported reliving an experience when their temporal lobe was stimulated. This is a weakness because there are inconsistent findings in this area and therefore the research lacks **reliability**.

**C** The interpretive cortex (inside the temporal lobe) is responsible for our memories. Overall, this study **supports** the theory of localisation.

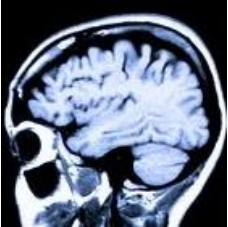
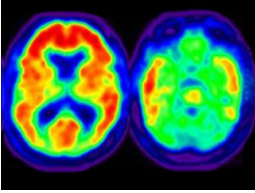
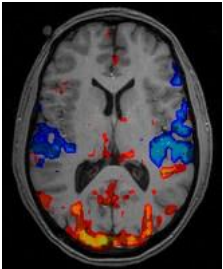
A weakness of Penfield's research is it contained an unrepresentative sample. For example, the patients were suffering from severe epilepsy. This is a weakness because we can't generalise the results to people who don't have epilepsy as their brains might work differently.

### EXAM PRACTICE #7

- 1) Describe **one** study that investigated localisation of function. [4 marks]
- 2) Describe what Penfield's study of the interpretive cortex can tell us about localisation of function. [2 marks]
- 3) Describe and evaluate Penfield's study of the interpretive cortex. [9 marks]



# LESSON #9 – SCANNING TECHNIQUES TO IDENTIFY BRAIN FUNCTIONING

TECHNIQUE	DESCRIPTION	STRENGTHS	WEAKNESSES
<h2 style="text-align: center;">CT</h2> 	<p>Works in a similar way to X-rays, allows us to see inside the body.</p> <p>The brain is examined by taking a large number of X-rays of it. During the scan, the person lies still inside a large doughnut-shaped scanner. When all the images are put together, it builds a detailed image of the brain.</p>	<p>Useful for revealing abnormal structures in the brain such as tumours or structural damage.</p> <p>The quality of images provided are of higher quality than traditional X-rays.</p>	<p>Require more radiation than traditional X-rays and therefore cannot be used often.</p> <p>Only provide a still image of the brain, not live activity that is happening.</p>
<h2 style="text-align: center;">PET</h2> 	<p>Measures activity in the brain after patient is injected with a small amount of a radioactive substance called glucose. This substance helps the PET scan see the active areas of the brain. Red and yellow colours show more activity than blue.</p>	<p>Shows the brain in action which is useful for research.</p> <p>They can show localisation of function (for example, we could ask someone to think of an episodic memory and then we could see what part of the brain is active).</p>	<p>They are extremely expensive and therefore rarely used in research.</p> <p>The results can be difficult to interpret. As people are injected with radioactive substances, it can only be used a few times.</p>
<h2 style="text-align: center;">fMRI</h2> 	<p>Works in a similar way to PET scans but requires <b>no</b> radioactive substance as it measures oxygen levels.</p> <p>When a brain area is active, it uses more oxygen so more blood is directed to the active area of the brain and this is shown on the scan.</p>	<p>Shows the brain in action which is useful for research.</p> <p>Does not use radiation so it is a very safe method of scanning the brain.</p> <p>Images are extremely clear.</p>	<p>Expensive to use as they require expensive equipment. It is only useful if the patient lies extremely still so might be a problem for children.</p> <p>There is a 5-second delay in the brain activity and it being shown on the screen, making it difficult to judge.</p>

### EXAM PRACTICE #8

- 1) Describe and evaluate CT scans as a method used to identify brain functioning. **[6 marks]**
- 2) Explain what a CT scan does and why it has been used to identify brain functioning **[3 marks]**
- 3) Identify and explain **one** evaluation of using an fMRI scan to study brain functioning. **[3 marks]**





**EPISODIC MEMORY**

Describes a long-term memory that is based on our personal events in our lives. It contains personal information.



**SEMANTIC MEMORY**

Describes a long-term memory that is based on our knowledge of the world. It contains factual information.

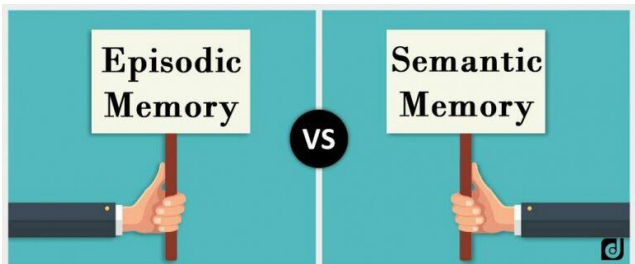
**TULVING (1989)**

**KEY STUDY - IMPORTANT**

**AO1 DESCRIPTION**

**AO3 EVALUATION**

A	To see whether thinking about episodic and semantic memories used different parts of the brain.	<p><i>A weakness of Tulving's research is that it contained a small sample size. This is a weakness because the small sample size means that we cannot generalise the results to the wider population. It lacks population validity.</i></p> <p><i>A weakness of Tulving's research is that only three participants support his theory. This is a weakness because it shows that not everyone shows different brain area activity when accessing different memories.</i></p> <p><i>A strength of Tulving's research is that he used an objective measurement. This is a strength because Tulving used brain scans which cannot be questioned. the results were not influence by Tulving's opinion because they are factual evidence.</i></p>
M	There were 6 volunteers who were injected with radioactive gold so that the active brain areas would show up on a brain scan. There were 8 tasks/ For the episodic tasks, they were told to think about a personal experience and for the semantic tasks, they were told to think about historical facts.	
R	In three of the six participants, it was clear that different parts of the brain showed activity when thinking of episodic memories (front of brain) and semantic memories (back of brain).	
C	Episodic and semantic memories are separate types of long-term memory that are in different parts of the brain.	



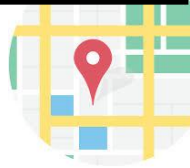
**EXAM PRACTICE #9**

- 1) Briefly outline the method used in Tulving's 'gold' memory study. [2 marks]
- 2) Briefly evaluate Tulving's 'gold' memory study. [3 marks]
- 3) Describe and evaluate Tulving's 'gold' memory study. [9 marks]

## COGNITIVE NEUROSCIENCE

### How does the structure of the brain influence behaviour?

The amygdala is an area in the temporal lobe that processes emotions. It can cause aggressive behaviour.



The aim is to create a detailed 'map' of the brain so we can identify which aspects of behaviour/cognition are related to which area of the brain.

### How does the structure of the brain influence mental illness?

Low levels of serotonin (a neurotransmitter) in the brain has been linked to depression. Low serotonin causes low mood & suicidal thoughts.



### How does the structure of the brain influence cognition?

Different memories are stored in different parts of the brain. For example, episodic memories are in the hippocampus while semantic memories are in the temporal lobe.

### COGNITIVE NEUROSCIENCE

The scientific study of how brain structures influence mental processes such as memory and perception.

## NEUROLOGICAL DAMAGE

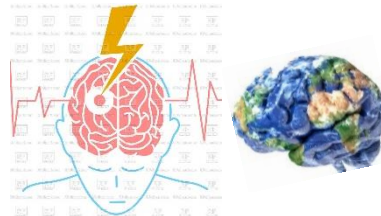
### What are the effects of neurological damage on motor ability?

Damaging the motor area in the left hemisphere will impact movement on the right side of the body and vice versa. A damaged motor area might result in fine movements (i.e. picking up a pen) and complex movements (i.e. walking) being lost.



### NEUROLOGICAL DAMAGE

An event (i.e. illness or injury) that damages the neurons in the brain. It can cause us to lose functions or change our behaviour.



### What are the effects of neurological damage on behaviour?

Damaging our language areas would result in speech problems. For example, a damaged Broca's area would mean the individual would speak slowly and have trouble finding the right words.

### What are the effects of a stroke?

A stroke occurs when the blood supply to part of your brain is interrupted due to a blockage or bleed in the brain. Parts of the brain might die. Damage can be permanent but other areas of the brain can take over to recover any lost functions.

The localisation theory states that different parts of the brain control different functions. This means that the way neurological damage impacts behaviour depends on which area of the brain it damaged.

### EXAM PRACTICE #10

- 1) Outline the effect a stroke can have on behaviour. [2 marks]
- 2) Describe how a stroke can lead to neurological damage. [3 marks]
- 3) Explain how the structure and function of the brain relates to cognition. [4 marks]

KEYWORD	DEFINITION
NERVOUS SYSTEM	
ANS	
CNS	
PNS	
SNS	
FIGHT OR FLIGHT	
JAMES-LANGE THEORY	
EMOTION	
NEURONS	
NEUROTRANSMITTER	
SYNAPTIC TRANSMISSION	
HEBB'S THEORY	
CEREBELLUM	




KEYWORD	DEFINITION
CEREBRAL CORTEX	
LOCALISATION	
INTERPRETIVE CORTEX	
CT SCAN	
PET SCAN	
FMRI SCAN	
EPISODIC MEMORY	
SEMANTIC MEMORY	
COGNITIVE NEUROSCIENCE	
NEUROLOGICAL DAMAGE	

# TOPIC 8 – PSYCHOLOGICAL PROBLEMS

What do I need to know for the psychological problems topic?

Content	Additional information
An introduction to mental health How the incidence of significant mental health problems changes over time	Characteristics of mental health, eg positive engagement with society, effective coping with challenges. Cultural variations in beliefs about mental health problems. Increased challenges of modern living, eg isolation. Increased recognition of the nature of mental health problems and lessening of social stigma.
Effects of significant mental health problems on individuals and society	Individual effects, eg damage to relationships, difficulties coping with day to day life, negative impact on physical wellbeing. Social effects, eg need for more social care, increased crime rates, implications for the economy.
Characteristics of clinical depression	Differences between unipolar depression, bipolar depression and sadness. The use of International Classification of Diseases in diagnosing unipolar depression: number and severity of symptoms including low mood, reduced energy levels, changes in sleep patterns and appetite levels, decrease in self-confidence.
Theories of depression Interventions or therapies for depression	Biological explanation (influence of nature): imbalance of neurotransmitters, eg serotonin in the brain. Psychological explanation (influence of nurture): negative schemas and attributions. Use of antidepressant medications. Cognitive behaviour therapy (CBT). How these improve mental health, reductionist and holistic perspectives. Wiles' study of the effectiveness of CBT.

Content	Additional information
Characteristics of addiction	The difference between addiction/dependence and substance misuse/abuse. The use of International Classification of Diseases in diagnosing addiction (dependence syndrome), including a strong desire to use substance(s) despite harmful consequences, difficulty in controlling use, a higher priority given to the substance(s) than to other activities or obligations.
Theories of addiction Interventions or therapies for addiction	Biological explanation (influence of nature): hereditary factors/genetic vulnerability. Kaij's twin study of alcohol abuse. Psychological explanation (influence of nurture): Peer influence. Aversion therapy. Self-management programmes, eg self-help groups, 12 step recovery programmes. How these improve mental health, reductionist and holistic perspectives.

#	Content			
1	Understanding mental health and illness and their effects			
2	Depression: Types and diagnosis			
3	Depression: Biological explanation			
4	Depression: Psychological explanation			
5	Depression: Antidepressant medication as treatment			
6	Depression: Cognitive behaviour therapy as treatment			
7	Depression: A study of treatment: Wiles (2013)			
8	Depression: A study of treatment: Wiles (2013) – AO3			
9	Addiction: Definition and diagnosis			
10	Addiction: Biological explanation (Kaij [1960])			
11	Addiction: Psychological explanation			
12	Addiction: Aversion therapy as treatment			
13	Addiction: Self-management as treatment			



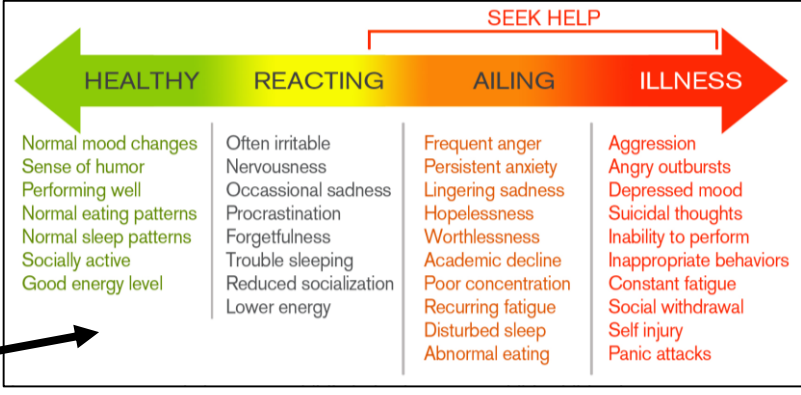
# LESSON #1 – UNDERSTANDING MENTAL HEALTH AND ILLNESS AND THEIR EFFECTS



## MENTAL HEALTH

The condition of being mentally & emotionally sound and not having a mental disorder. Individuals with mental health feel comfortable, have positive feelings about others and are able to meet the demands of life.

Mental health is seen as a scale which people go up and down during their lives.



### UK STATISTICS

The mental health organisation MIND has said that in 2009, the following mental health problems were this frequent:

**Depression** = 2.6 in 100 people  
**Anxiety** = 4.7 in 100 people  
**Eating disorders** = 1.6 in 100 people

### WHY IS MODERN LIFE MORE CHALLENGING?

Modern life makes life more challenging because it is difficult to escape poverty which can lead to mental health problems. Social isolation can also be a problem for people (i.e. elderly people who struggle to get around).

### WHAT ARE THE CHARACTERISTICS OF A MENTAL HEALTH PROBLEM?

Someone with a mental health problem might struggle to socialise with other people. They might struggle to concentrate and might have problems sleeping. The symptoms change depending on the mental health problem they are experiencing.

### HOW HAS SOCIAL STIGMA AROUND MENTAL HEALTH CHANGED?

Previously, someone with a mental health problem might be called a “lunatic”, “insane” or “crazy”. These labels are harmful because they lead other people to think negative about the person. In today’s society, people are more accepting of people with mental health problems.

### HOW IS MENTAL HEALTH CHANGING?

It could be said the MH is changing for the worse as more people are being diagnosed. In 2007, 24% of adults were accessing treatment for their mental health problem. In 2014, this had risen to 37%.

### HOW DO DIFFERENT CULTURES VIEW MENTAL HEALTH?

People around the world believe different things about mental health. For example, in the UK hearing voices is seen as a symptom of schizophrenia whereas in Africa, hearing voices is a sign of being mentally healthy. There are also culture-bound syndromes which are mental health problems that only exist in certain cultures.

## EXAM PRACTICE #1

- 1) Explain how modern living can influence mental health. **[3 marks]**
- 2) What is meant by the term ‘social stigma’ in relation to mental health? **[2 marks]**
- 3) Explain **one** effect that mental health problems can have on the individual. **[4 marks]**
- 4) Explain **two** effects that mental health problems can have on society. **[4 marks]**



### **DAMAGE TO RELATIONSHIPS**

MH problems affect the ability to talk to others, which affects relationships because communication is important. MH problems are isolating as people avoid being with others as they feel bad about themselves and fear judgement.

### **DIFFICULTIES COPING WITH DAY-TO-DAY LIFE**

MH problems are linked to difficulties with getting dressed, socialising, cleaning the house, etc. This could cause a patient little distress but it may be distressing to others.

### **PHYSICAL WELL-BEING**

If you are anxious or stressed the body produces something called cortisol. This prevents the immune system functioning properly, so physical illness is more likely.

## **HOW DO MENTAL HEALTH PROBLEMS AFFECT THE INDIVIDUAL?**

## **HOW DO MENTAL HEALTH PROBLEMS AFFECT THE SOCIETY THEY LIVE IN?**



### **NEED FOR MORE SOCIAL CARE**

Taxes are used to fund social care, offering people who are in need the basic necessities, i.e. food and warmth. Social care includes helping people to learn how to care for themselves and teaches new social and work skills.

### **INCREASED CRIME RATES**

There is an increased risk of violence in people with MH problems (up to four times greater).

### **IMPLICATIONS FOR THE ECONOMY**

Mental health care costs £22 billion a year. Cheaper drug treatments should be researched more.

# LESSON #2 – DEPRESSION: TYPES AND DIAGNOSIS



## DEPRESSION

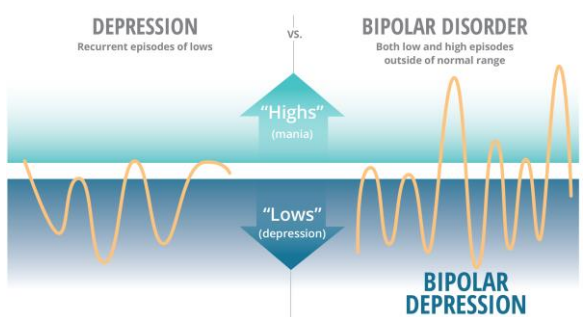
A mental disorder that affects the **behaviour** (i.e. reduce activity), **emotion** (i.e. feelings of sadness) and **cognition** (i.e. focusing on negatives) of an individual.

**What is the difference between feeling sad and having depression?**

Sadness is a normal human emotion, we experience it when we experience certain situations.  
 Depression is an abnormal emotional state. When a person is depressed, they feel sad about **everything**.

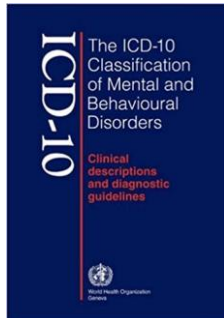
**What are the two types of depression?**

- 1) Unipolar depression** - the individual experiences one emotional state (depression).
- 2) Bipolar depression** - the individual experiences two emotional states (depression and mania). Mania is a frenzied activity such as rushing around everywhere, making big plans, feeling extremely excited.



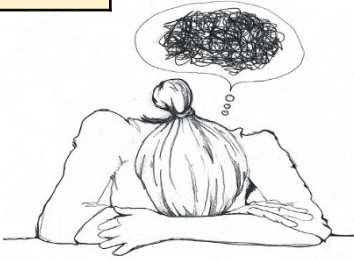
Unipolar depression is diagnosed by a doctor using a set of symptoms listed in a book called the ICD-10. In order to be diagnosed, symptoms should be present all or most the time and for at least two weeks. Individuals might also experience negativity, ideas of self-harm or suicide and reduced concentration.

KEY SYMPTOMS	<b>Low mood:</b> Depressed mood most of the day and nearly every day.
	<b>Loss of interest/pleasure:</b> Reduced interest/pleasure in most activities most of the day.
	<b>Reduced energy levels:</b> This has a knock-on effect on work, education and social life.
OTHER SYMPTOMS	<b>Changes in sleep patterns:</b> Reduced sleep (insomnia), or more need for sleep (hypersomnia).
	<b>Changes in appetite levels:</b> This may increase or decrease, leading to weight gain or loss.
	<b>Decrease in self-confidence:</b> May have a sense of self-loathing (hating themselves).



“For the past few weeks Jessica has felt unusually **fatigued** and found it increasingly **difficult to concentrate at work**. Her coworkers have noticed that she is often **irritable and withdrawn**, which is quite different from her typically upbeat and friendly disposition. She has **called in sick on several occasions**, which is completely unlike her. On those days she stays **in bed all day, watching TV or sleeping**”

**MILD = 4 SYMPTOMS**  
**MODERATE = 5-6 SYMPTOMS**  
**SEVERE = 7+ SYMPTOMS**



“**fatigued**” - reduced energy levels, insomnia  
 “**difficult to concentrate at work**” - reduced concentration  
 “**irritable and withdrawn**” - negativity  
 “**called in sick**” - reduced energy levels  
 “**in bed all day**” - reduced energy levels, hypersomnia

## EXAM PRACTICE #2

CPAGETT 18/19

- 1) Explain **two** characteristics of clinical depression. **[4 marks]**
- 2) Name **one** system that is used to diagnose unipolar depression. **[1 mark]**
- 3) Identify and explain **two** behaviours shown by someone with bipolar depression. **[2 marks]**

## LESSON #3 – DEPRESSION: BIOLOGICAL EXPLANATION

### WHAT CAUSES DEPRESSION?

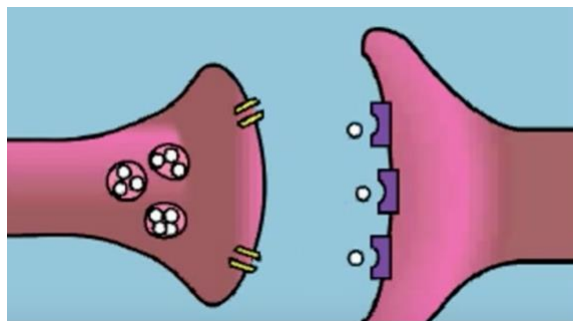
Biological explanations look at physical influences such as neurotransmitters, brain structures and genes.

Psychological explanations look at environmental influences such as our family, our thinking processes or past experiences.

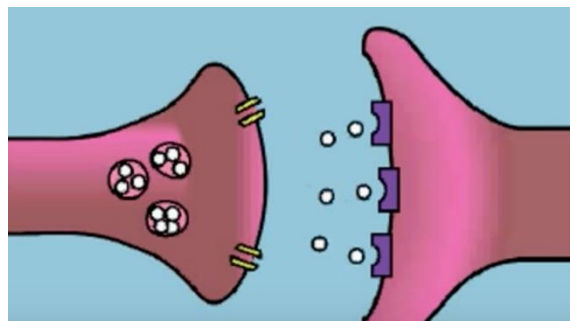
### BIOLOGICAL EXPLANATION

Serotonin is a neurotransmitter responsible for improving mood, helping us sleep and pay attention. This means if we don't have enough, our mood lowers, we don't sleep well and we can't pay attention.

People with depression have low serotonin levels as there is not enough serotonin entering the post-synaptic neuron from the pre-synaptic neuron. This might be because of a gene someone has or it might even be because of their diet.



Synaptic transmission in someone **with** depression.



Synaptic transmission in someone **without** depression.

### AO3 EVALUATION

A strength of the biological explanation is that research has found lower levels of serotonin in the brains of people with depression. This is a strength because this research provides support for the view that depression is caused by low levels of serotonin.

A weakness of the biological explanation is that we can't establish a cause and effect. We don't know whether low serotonin levels cause depression or whether having depression causes low serotonin levels. This is a weakness because we don't know which causes which.

A weakness of the biological explanation is that it ignores other potential causes of depression. For example, this explanation ignores how the family environment or traumatic experiences might cause depression. This is a weakness because it doesn't explain all causes of depression.

### EXAM PRACTICE #3

- 1) Explain how neurotransmitters might be involved in depression. [3 marks]
- 2) Explain what is meant by an 'imbalance of neurotransmitters'. Refer to depression in your answer. [3 marks]
- 3) Explain what the imbalance of neurotransmitters tells us about the biological causes of depression. [4 marks]


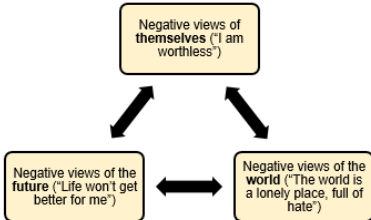

# LESSON #4 – DEPRESSION: PSYCHOLOGICAL EXPLANATION

## WHAT CAUSES DEPRESSION?

Biological explanations look at physical influences such as neurotransmitters, brain structures and genes.

Psychological explanations look at environmental influences such as our family, our thinking processes or past experiences.

## PSYCHOLOGICAL EXPLANATION

FAULTY THINKING	NEGATIVE SCHEMA	ATTRIBUTIONS
<p>When a person is depressed, they tend to 'see the cup as half empty' instead of 'half full'. They only pay attention to the negative part of a situation and ignore the positives. This way of thinking is inevitable, the depressed person can't stop it and this creates feelings of hopelessness and depression.</p> 	<p>A schema is a 'package' of ideas and information that we develop with experience. A self-schema is the information we have about ourselves. People with depression have negative self-schema about themselves (thinking they are rubbish at everything). People with depression also have negative schema about the world and the future.</p> 	<p>An attribution is when you try to explain someone's cause of behaviour. When we observe someone's behaviour, we attribute causes (i.e. think about <i>why</i> that person did that). When something goes wrong for a depressed person, they experience internal attribution which is explaining their behaviour because they are "stupid" or "worthless".</p> 

## AO3 EVALUATION

A strength of the psychological explanation is that it has real life application. For example, now we know depression can be caused by faulty thinking, we can use therapy to try and change the way people think. This is a strength because the explanation has been used to help people.

A weakness of the psychological explanation of depression is that it doesn't explain all types of depression. For example, not everyone with depression has a faulty thinking style. This is a weakness because it is not a complete explanation.

A weakness of the psychological explanation is that it ignores other potential causes of depression. For example, this explanation ignores how low levels of serotonin might cause depression. This is a weakness because it doesn't explain all causes of depression.

## EXAM PRACTICE #4

- 1) The psychological explanation of depression has been criticised. Use your knowledge of psychology to evaluate the psychological explanation of depression. [5 marks]
- 2) Explain the role of attributions in depression. [3 marks]
- 3) Distinguish between a negative schema and an attribution. [3 marks]



## LESSON #5 – DEPRESSION: BIOLOGICAL TREATMENT - SSRIs

According to the biological explanation, low levels of serotonin causes to depression. That means to treat depression, we should **increase** levels of serotonin.

The most common way of doing this is by using an antidepressant called selective serotonin reuptake inhibitors (SSRIs).

SSRIs work by **blocking** the reuptake channel on the presynaptic neuron so the serotonin is forced to remain in the synaptic cleft until it is absorbed into the postsynaptic neuron

### SIDE EFFECTS



**NAUSEA**  
(feeling sick)

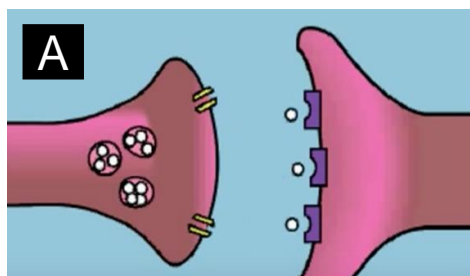


**WEIGHT CHANGES**  
(loss or gain)

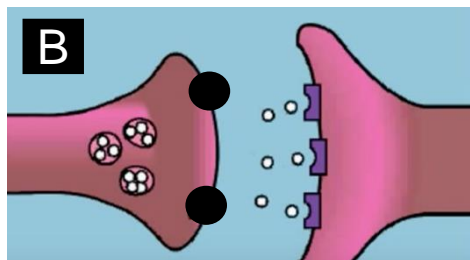
**ANXIETY**  
(constant fear or worry)



**INSOMNIA**  
(struggle to sleep)



**No SSRI** -  
Reuptake  
channels are  
open



**SSRI**  
Reuptake  
channels  
are blocked

Picture A and B both show synaptic transmission in someone with depression. The only difference is that patient A is not taking SSRIs so their serotonin levels remain low. Patient B is taking SSRIs so their reuptake channels are blocked, meaning their serotonin levels have increased.

### AO3 EVALUATION

A weakness of this treatment is that patients can experience side effects such as anxiety, weight gain/loss, insomnia and nausea. These severe side effects mean that patients often stop taking the SSRI. This is a weakness because it means the patient is likely to stop taking the SSRIs so their depression is untreated.

A weakness of this treatment is that it can take a long time for the SSRIs to start working. SSRIs can take up to 3 months to start working so many patients give up before then. This is a weakness because if patients stop taking the SSRIs, their depression could be even worse.

This treatment of depression is reductionist (it only focuses on **one** cause of depression). It ignores the fact that people might have depression because of a traumatic experience and drugs won't fix that.

### EXAM PRACTICE #5

- 1) Explain the use of antidepressant medication to treat depression. [4 marks]
- 2) Explain **one** criticism of using antidepressant medication to treat depression. [4 marks]
- 3) What is meant by the term 'antidepressant'? [1 mark]

# LESSON #6 – DEPRESSION: PSYCHOLOGICAL TREATMENT - CBT

## COGNITIVE BEHAVIOUR THERAPY

Negative, irrational or faulty thinking causes depression because people tend to think in all-or-nothing terms (seeing as all **bad**). Therefore, the aim of therapy is to change this to rational ('normal') thinking to reduce depression.

CBT aims to change behaviour through changing their thinking. The therapist will use behavioural activation which is where a pleasant activity (going to see a film or friends) is planned each day. This creates more positive emotions and improves mood.

### HOW DOES THE THERAPIST TACKLE THE IRRATIONAL THOUGHTS?

The therapist will dispute the irrational thoughts shown by the patient. For example, an irrational thought might be "Everyone hates me". The therapist will dispute this and ask for evidence of this thought or explain to the patient that this thought is irrational.

### HOW DOES THE PATIENT TACKLE THE IRRATIONAL THOUGHTS?

The client will keep a thought diary which is where they record any unpleasant emotions they experience. They are then asked how much they believe that irrational thought and asked to produce a rational response to their irrational thoughts.

### IRRATIONAL THOUGHTS

An irrational thought is a thought that is not based on logic or clear thinking. It is a thought someone has for no reason at all, for example, thinking your friend hates you because you saw them whispering to someone else.



### AO3 EVALUATION

A strength of cognitive behaviour therapy is that it is long-lasting. For example, in comparison to SSRIs, CBT aims to change someone's thought processes for good. Once they have learnt techniques to challenge irrational thinking, they can use it again and again. This is a strength as it can prevent depression from worsening in the future,

A strength of cognitive behaviour therapy is that it could be considered as a complete treatment. For example, this therapy focuses on treating most aspects of depression rather than just low serotonin levels that the biological therapy treats. This is a strength because it means the treatment is more likely to work.

A weakness of cognitive behaviour therapy is that it requires a lot of effort from the patient. For example, it involves the therapist and patient meeting once a week for several months. People with depression often have reduced energy levels so they will struggle to turn up to therapy. This is a weakness because this therapy isn't suitable for everyone,

### EXAM PRACTICE #6

1) Angelina has been diagnosed with unipolar depression. She has been feeling very unhappy recently. Her friend Izzy has noticed that she thinks in a very negative way and this could be causing her low mood and change in behaviour. Outline one way that CBT could be used to treat her depression. **[3 marks]**

2) Explain how negative schemas are challenged when using cognitive behaviour therapy to treat depression. **[3 marks]**

Some people with depression take SSRIs but they don't always work. SSRIs only work for 30% of people with depression, the remaining 70% require further help. Wiles (2013) used CBT as well as antidepressants to treat depression using the CoBaIT trial (Cognitive behaviour therapy as an adjunct to medication for treatment-resistant depression).

**KEY STUDY - IMPORTANT**

**WILES (2013)**

	<b>AO1 DESCRIPTION</b>	<b>AO3 EVALUATION</b>
A	To see whether antidepressants and CBT work in treating depression.	<p><i>A weakness of this research is that the way of assessing severity of depression in this research is flawed. For example, the patients had to complete a questionnaire that determined how depressed they were. This is a weakness because participants could have shown social desirability (lying on a questionnaire).</i></p>
M	469 patients who had been taking SSRIs but still showed signs of depression were used. They were placed into two groups. Group one received SSRIs only but group two received SSRIs as well as 12-18 sessions of CBT. They were then assessed to see if their depression had improved.	
R	22% of people in group one received a 50% reduction in the symptoms of depression whereas for group two this was 46% of people. 12 months later, those in group two had greater levels of recovery and were less likely to relapse.	<p><i>A strength of this research is that it has real life application. For example, Wiles wanted to find the most effective way of treating depression and she was successful in doing this. This is a strength because people with depression can now receive more effective support in order to manage their mental health.</i></p>
C	CBT is a useful addition alongside the use of antidepressants (SSRIs).	<p><i>A weakness of this research is that it had a high drop out rate. For example, during the research, 16% of people dropped out. This is a weakness because if these people remained, the results could have been different.</i></p>



**WORKS IN**  
**= 22% OF**  
**PEOPLE**



**WORKS IN**  
**= 46% OF**  
**PEOPLE**

**EXAM PRACTICE #7**

- 1) Explain what Wiles' study shows about the effectiveness of CBT in treating depression. **[3 marks]**
- 2) Describe Wiles' study into the effectiveness of CBT. **[4 marks]**
- 3) Describe and evaluate Wiles' study into the effectiveness of CBT. **[9 marks]**

# LESSON #9 – ADDICTION: DEFINITION AND DIAGNOSIS



## ADDICTION

A mental health problem in which an individual takes a substance or engages in a behaviour that is pleasurable but eventually becomes obsessive with harmful consequences.

An addiction can be to pretty much anything that can give someone a 'high' - alcohol, drugs, shopping, games...



### DEPENDENCE VS. ADDICTION

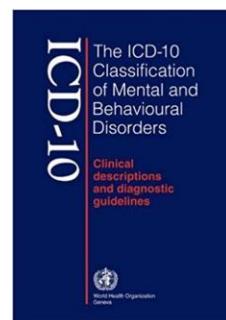
Griffiths (2005) said that depending on a substance does not necessarily mean you are addicted. For example, someone might become dependent on pain relief to manage a condition but that doesn't mean they are addicted. Someone becomes addicted when they take the pain relief because it gives them a 'high'.

### SUBSTANCE MISUSE VS. ABUSE

Both misuse and abuse are harmful but the difference between them is the intentions of the individual. For example, substance **misuse** is not following the guidelines for the usage (i.e., taking more sleeping tablets than you should because you cannot sleep). Substance **abuse** would be taking more sleeping tablets than you should because you want to experience a 'high'.

Addiction is diagnosed by a doctor using a set of symptoms listed in a book called the ICD-10. In order to be diagnosed, patients must show three or more of the symptoms at the same time during the year.

1	<b>Strong desire:</b> the individual experiences a sense of compulsion to use the substance.
2	<b>Persisting despite harm:</b> the individual continues to take the substance despite clear evidence of negative consequences, such as damage to the liver through excessive drinking. The individual knows about this harm but still carries on.
3	<b>Difficulty in controlling use:</b> the individual has problems stopping usage and/or limiting the levels of use.
4	<b>Higher priority given to the substance:</b> the individual finds the substance use matters more to them than activities. Other interests are neglected.
5	<b>A withdrawal state:</b> the individual feels worse when they stop using the substance. Depending on the substance, this could be vomiting, irritability and anxiety.
6	<b>Evidence of tolerance:</b> the individual requires increased doses of the substance in order to achieve effects originally produced by lower doses (i.e. going from drinking 2 pints of alcohol to 5 pints in one night because you have become used to it).



## WHEN THE FUN STOPS STOP

Daryl says to his girlfriend that he is not addicted to cigarettes. He tells her he can quit any time he wants but she is not so sure as **he always seems to want to have a cigarette** and **he gets irritated when he can't have one**. He also continues to smoke despite the fact **he knows it can cause cancer**. His girlfriend is reluctant to push him too hard to quit smoking as he says **smoking is the most important thing in his life**. She is worried because he is now **smoking more than ever**.

**"always seems to want a cigarette"** - sense of compulsion to use, difficulty in controlling use  
**"gets irritated when he can't have one"** - feels worse when they stop using the substance  
**"knows it can cause cancer"** - individual continues use despite knowledge of negative consequences  
**"smoking is the most important thing"** - higher priority given to the substance  
**"smoking more than ever"** - evidence of tolerance  
**"in bed all day"** - reduced energy levels, hypersomnia

### EXAM PRACTICE #8

- 1) Andy and Sue have both been prescribed antidepressant medication for their depression and both have problems with their intake of these antidepressant drugs. Andy takes too many because he feels so sad every day and finds that if he takes more than the prescribed dose he feels happier. Sue has also increased the number she takes because she wants to lose weight and the increase in pills have increased her weight loss. Identify whether Andy and Sue show signs of substance misuse or abuse. Explain your answer. **[4 marks]**
2. Distinguish between substance abuse and misuse. **[3 marks]**
3. Explain the difference between addiction and dependence. **[3 marks]**



# LESSON #10 – ADDICTION: BIOLOGICAL EXPLANATION (KAIJ [1960] – AO1 & AO3)

Research suggests addictions can be inherited. In other words, the genetic information passed from parents to children can make them more or less likely to develop an addiction. However, it isn't that simple. There isn't one gene for addiction - there are multiple genes which can make you vulnerable but that doesn't mean you will develop an addiction. Something in the environment needs to activate the addiction (i.e. stress).

**KEY STUDY - IMPORTANT**

## KAIJ (1960)

### AO1 DESCRIPTION

### AO3 EVALUATION

**A** To see whether being addicted to alcohol is because of someone's genes.

A weakness of this research is that it doesn't explain all causes of addiction. For example, if genes were the only answer then you would expect 100% of the alcoholic identical twins to have a twin who is also an alcoholic but this wasn't the case. This is a weakness because there must be other causes for addiction.

**M** Male twins from Sweden were used where at least one twin had experienced problems with alcohol abuse. Kaij interviewed the twins to collect information about drinking habits.

**R** Among the sets of twins who had **both** experienced alcohol abuse, 61% of them were identical twins and 39% of them were non-identical twins.

A strength of this research is that it has supporting research. Kendler et al. (1997) conducted a larger study and found that genetic factors do have a big influence on alcoholism. This is a strength because this supporting research means Kaij's research is **reliable** (consistent results).

**C** This suggests alcoholism is as a result of hereditary factors as there are more identical twins with alcohol problems than non-identical twins so genes must play a role (identical twins share 100% of genes).

A weakness of this research is that Kaij wasn't actually studying alcoholism. For example, the twins in the research were contacted because they had been arrested in relation to being drunk. This is a weakness because committing an offence whilst being drunk doesn't necessarily mean you are an alcoholic.



### EXAM PRACTICE #9

- 1) Explain what is meant by the terms 'hereditary factors' and 'genetic vulnerability'. [4 marks]
- 2) Describe the results and conclusion of **one** study that investigated alcohol abuse. [4 marks]
- 3) Describe and evaluate Kaij's study of alcohol abuse. [4 marks]



# LESSON #11 – ADDICTION: PSYCHOLOGICAL EXPLANATION

Addictions aren't always as a result of our biology. They can be learned from interactions with the physical and social aspects of our environment. One of the most important factor in shaping a young person's behaviour is peer influence.

## PEER INFLUENCE

The effect that our peers have on us. Peers are people who share our interest, are of similar age, social status or backgrounds to us. When we spend more time with peers than family, they can be very influential.



## WHAT ARE THE 4 WAYS OUR PEERS MIGHT INFLUENCE US TO DEVELOP AN ADDICTION?

### SOCIAL LEARNING THEORY

Bandura proposed that we learn what to do and think by observing other people. We imitate (copy) these behaviours, especially if the person we are observing is rewarded for their behaviour. Someone might develop a gambling addiction if they see their friend gambling and winning money from it. We are more likely to imitate people who we admire (our role models).

### SOCIAL NORMS

A social norm is an unwritten rule about behaviour. We use social norms to guide us when we aren't sure of how to behave in a situation so we look at the behaviour of others. Someone might develop alcoholism if they are new to a pub environment. They will simply look at what their social group is doing and copy them.

### SOCIAL IDENTITY THEORY

We may feel pressure to conform to the social norms of the peer group and this is explained by the social identity theory. In order to maintain group membership and be accepted by the group, you behave and think like them, even if this means developing an addiction.

### OPPORTUNITIES

Our peer group might create opportunities for an individual to take drugs, for example. They might buy it for them, provide a safe place to consume them or give them instructions about what to do. This could lead to someone becoming addicted to the drug.

## AO3 EVALUATION

A strength of this explanation is that it has real life application. For example, now we know people are influenced a great deal by their peers, we can use this to help prevent addictions. Adverts can give people messages such as "Those around you are drinking less than you think". This is a strength because it means we can use this explanation to prevent addictions.

A weakness of this explanation is that it doesn't explain all situations. For example, if an individual saw their peer losing from their addiction (i.e. losing money from gambling, declining health from smoking) they still might develop an addiction. This is a weakness because there must be other causes of addiction that this explanation ignores.

A strength of this explanation is that there is supporting research. Psychologists looked at several studies and found that smoking addicts were likely to be influenced by their peers. This is a strength because it shows that smoking addicts are indeed influenced to develop an addiction by their peers.

## EXAM PRACTICE #10

1) Explain the influence of nurture on addiction. [3 marks]

2) Identify and explain **one** psychological factor that influences addiction. [3 marks]

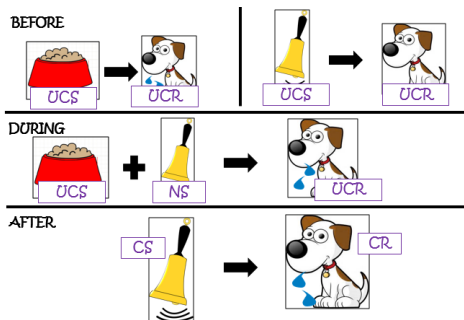
3) Explain **two** ways the psychological explanation for addiction can be evaluated. [4 marks]

# LESSON #12 – TREATING ADDICTION: AVERSION THERAPY

Classical conditioning is a process that explains how humans learn. It states that we learn by associating things together. For example, if you are sprayed with water every time you hear a bell ring, eventually you will flinch at just the sound of the bell. Psychologists use classical conditioning to treat addictions using aversion therapy.

## AVERSION THERAPY

A patient is exposed to their addictive substances while being exposed to some sort of discomfort. This leads to patient to associated the substance with discomfort and therefore stop using it.



Classical conditioning shown by Pavlov's dogs

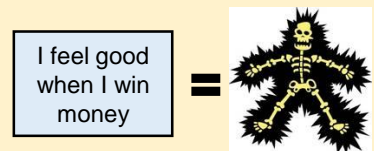
### TREATING ALCOHOLICS

The individual is given a drug that causes them to feel extremely sick and eventually vomit. Just before they vomit, they drink some alcohol. Eventually, the patient will learn to associate being sick with alcohol and this will put the individual off drinking alcohol in the future.



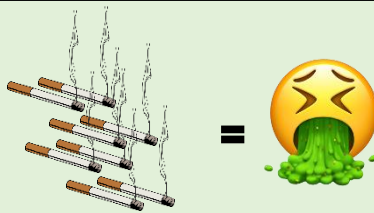
### TREATING GAMBLERS

The individual writes down some phrases that relate to gambling behaviour (i.e. "I feel good when I win money") and some about non-gambling behaviour (i.e. "My favourite food is chocolate"). The individual then shuffles the cards and when they read one related to gambling, they get an electric shock. Eventually, the gambling behaviours are associated with the electric shock so they are put off gambling in the future.



### TREATING SMOKERS

The individual sits in a room and rapidly smokes (smokes a large amount of cigarettes one after another). This creates feelings of disgust and sickness. The individual then associates the feelings of disgust and sickness with cigarettes so they are put off in the future.



## AO3 EVALUATION

A weakness of aversion therapy is that it is only a short-term solution. For example, research has found that years later, addicts revert back to their own ways. Probably because they know they aren't going to receive an electric shock if they gamble. This is a weakness because it suggests the therapy isn't a long-term solution like the 12-step programme (next page).

A weakness is that it might only work for some people. For example, the treatment involves experiences very unpleasant feelings such as extreme sickness. This is a weakness because it means the programme isn't suitable for everyone, people might drop out and then it could make their problem worse.

A strength of aversion therapy is that it could be considered as a holistic approach when combined with CBT. For example, aversion therapy deals with the addictive **behaviour** whilst CBT deals with the **thoughts** surrounding the addiction. This is a strength because this combination provides long lasting support to the addict.

### EXAM PRACTICE #11

- 1) Outline and evaluate aversion therapy as a method to improve mental health. [6 marks]
- 2) Describe the way aversion therapy works as a therapy for addiction. [4 marks]
- 3) Explain whether aversion therapy is a holistic or reductionist method of treating addiction. [3 marks]

# LESSON #13 – TREATING ADDICTION: SELF-MANAGEMENT

Some individuals prefer it if they organise their own recovery without a professional therapist. This is called self-management. Alcoholics Anonymous (AA) is an example of a self-management programme.

## SELF MANAGEMENT PROGRAMME

When someone with a mental health problem (i.e. addiction) works on their recovery without the assistance of a professional.

The 12-step recovery programme is used by alcoholics although it can be changed to suit any addiction.

### HIGHER POWER

Addicts surrender their control to a 'higher power' such as God. Even though not everyone is religious, it is important to let go of your own choices.

### ADMITTING AND SHARING GUILT

The addict must accept that they have made mistakes in life. They talk to the group about what they have done (maybe they stole money to pay for their substance) and they accept the consequences.,

### LIFELONG PROCESS

Recovering from an addiction is a lifelong process where the group supports each other. Members have a book with names and number of people they can call if they need.

1	Admit the addiction has power over you
2	Find hope and believe you can be helped
3	Surrender control to those who help you
4	Focus on the wrongs you have done
5	Share these wrongs with yourself & another person
6	Be ready to have your faults corrected by others
7	Ask others to remove your faults
8	Make a list of people who have been harmed
9	Make up for any harm you've caused
10	Carry on reviewing your behaviour
11	Use prayer and meditation to continue
12	Share the message to others in need

## Alcoholics Anonymous



Self-help groups are used to recover from addictions. It is a group of people who share the same problems and use the 12-step programme to help and support each other.

## AO3 EVALUATION

A weakness of the 12-step programme is that there is a lack of research to support it. For example, researchers have found that there was no difference between the effectiveness of the 12-step programme and other treatments. This is a weakness because it means the programme cannot be considered as effective.

A weakness is that it might only work for some people. For example, the high demands of the 12-step programme mean that a lot of people dropout and go back to their addiction. The self-help groups also mean individuals have to be open with others and willing to share. This is a weakness because it means the programme isn't suitable for everyone.

A strength of 12-step programmes is that it is a lifelong process. For example, if individuals don't drop out, they live by the 12-steps for the rest of their lives and share the message to other people. This is a strength because in comparison to aversion therapy, it is a long term solution.

## EXAM PRACTICE #12

- 1) Explain how a 12-step recovery programme may help to treat addiction. [4 marks]
- 2) Describe **two** of the steps involved in the 12-step recovery programme. [4 marks]
- 3) Explain **one** criticism of the 12-step recovery programme. [4 marks]

KEYWORD	DEFINITION
MENTAL HEALTH	
INDIVIDUAL EFFECTS	
SOCIAL EFFECTS	
UNIPOLAR DEPRESSION	
BIPOLAR DEPRESSION	
ICD-10	
SYNAPTIC TRANSMISSION	
SEROTONIN	
FAULTY THINKING	
NEGATIVE SCHEMA	
ATTRIBUTIONS	
SSRIs	
CBT	

KEYWORD	DEFINITION
ADDICTION	
SUBSTANCE ABUSE	
SUBSTANCE MISUSE	
GENETIC VULNERABILITY	
PEER INFLUENCE	
SOCIAL NORMS	
AVERSION THERAPY	
CLASSICAL CONDITIONING	
12-STEP PROGRAMME	