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Centre number

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Candidate number

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AS PSYCHOLOGY

Paper 2 Psychology in Context

Monday 22 May 2017

Afternoon

Time allowed: 1 hour 30 minutes

Materials

For this paper you may have:

- a calculator.

Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **all** questions. You must answer the questions in the spaces provided. Do **not** write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

For Examiner's Use	
Section	Mark
A	
B	
C	
TOTAL	

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 72.
- You will be assessed on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.



J U N 1 7 7 1 8 1 2 0 1

Section A

Approaches in Psychology

Answer **all** questions in this section.

For each multiple-choice question, completely fill in the circle alongside the appropriate answer.

CORRECT METHOD



WRONG METHODS

If you want to change your answer you must cross out your original answer as shown. If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown. 

0 1

Which of the following best describes the aim of cognitive neuroscience?
Shade **one** box only.

A to relate mental processes to brain structures



B to relate theoretical models to mental processes



C to use biological terms to explain behaviour



D to use computers to explain mental processes



[1 mark]

0 2

Outline the fight or flight response.

[3 marks]

When a stressor is perceived, the hypothalamus activates the sympathetic nervous system, switching the body from its resting parasympathetic state into sympathetic arousal to prepare it for action (fight or flight).

The sympathetic branch stimulates the adrenal medulla to release adrenaline into the bloodstream. Adrenaline increases heart rate and



Extra space *breathing rate, constricts blood vessels to raise blood pressure, diverts blood away from the skin, kidneys and digestive system to the brain and skeletal muscles, and increases sweating.*

Once the threat has passed, the parasympathetic nervous system takes over again and returns the body to its normal resting state (rest and digest).

0	3
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Outline Skinner's research into reinforcement.

[3 marks]

Skinner (1938) studied operant conditioning, where voluntary behaviour is learned through its consequences, using rats and pigeons in a 'Skinner box'.

In the box, a hungry rat moved around and, at first by accident, pressed a lever, which delivered a food pellet. The food acted as positive reinforcement, so the rat quickly learned to press the lever repeatedly.

Extra space *In other trials pressing the lever switched off an unpleasant electric current: negative reinforcement, removing something unpleasant, also strengthened lever pressing, whereas punishment decreased it.*

When reinforcement stopped the behaviour died out (extinction), and variable ratio schedules were most resistant to extinction. Skinner also used shaping to train pigeons to play ping pong.



0 4

Explain how reinforcement might be used to encourage primary school children to pick up litter in the playground.

[3 marks]

Teachers could use positive reinforcement by giving a child a reward, such as praise, a sticker or a house point, every time they pick up litter, so they are more likely to repeat the behaviour.

A token economy could be set up: for every five pieces of litter put in the bin, a child earns a token (secondary reinforcer), and ten tokens can be exchanged for something the children value, such as

Extra space *extra playtime or choosing a game (primary reinforcer).*

Vicarious reinforcement could also be used: if the other children see a classmate praised in assembly for picking up litter, they may imitate this to receive the same reward. Shaping could reward any small step, such as walking towards litter, at first.

Negative reinforcement could be used too, e.g. children who pick up litter are excused from a disliked task such as tidying the classroom.



0	5
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Adil has just started studying the cognitive approach in psychology but does not understand when his teacher tells him that cognitive psychologists use the results of experiments to make inferences about behaviour.

Write a brief explanation of inference that would help Adil to understand what his teacher means.

[2 marks]

Adil, mental processes such as memory or thinking cannot be seen directly, so psychologists go beyond what they observe and draw conclusions about what is going on in the mind from behaviour in experiments.

Extra space *For example, if participants recall more words from the start and end of a list, psychologists infer there are separate short-term and long-term memory stores, which cannot be seen.*

Turn over for the next question



0 6

Samira and John are talking.

Samira says, 'Look at your little sister. She's pretending she's got a mobile phone like yours and is making a call.'

John replies, 'Yes. But when she saw me get told off for using my Dad's favourite pen, she never copied me doing that!'

Describe and evaluate social learning theory. Refer to the conversation above as part of your answer.

[12 marks]

You may use this space to plan your answer.

Social learning theory (SLT), proposed by Bandura, suggests behaviour is learned in a social context through observing and imitating others, called models. It agrees with behaviourism that learning comes from the environment, but adds that learning can be indirect.

Samira notices that John's little sister is pretending to make a phone call like John. This is observational learning and imitation: John is a model, and she has watched how he uses his phone and copied it. She is likely to imitate John because of identification, as he is an older, high status model she looks up to and wants to be like. Models who are similar, of the same gender or seen as powerful are more likely to be imitated.

SLT also includes vicarious reinforcement. People learn about the consequences of behaviour by watching what happens to others. John's sister saw John told off for using his Dad's favourite pen, so she experienced vicarious punishment and did not copy him. Had John been



rewarded, she would have been more likely to imitate him.

Unlike behaviourism, SLT includes four mediational (cognitive) processes between stimulus and response. Attention: John's sister must notice the behaviour. Retention: she must store a memory of it. Motor reproduction: she must be physically able to perform it. Motivation: she must want to perform it, depending on the expected consequences. The first two relate to learning and the last two to performance, so learning and performance are separate: she may have learned how to use the pen but chose not to reproduce it. Bandura later added reciprocal determinism, where people influence their environment as well as being influenced by it.

A strength is supporting evidence from Bandura et al. (1961). Children who watched an adult model behave aggressively towards a Bobo doll were more aggressive with the doll than those who saw a non-aggressive model, showing behaviour can be learned through observation. Bandura and Walters (1963) found children who saw the model rewarded were more aggressive than those who saw the model punished, supporting vicarious reinforcement, just as John's sister avoided the punished behaviour. However, these were lab experiments with high control, but children may have shown demand characteristics, as a Bobo doll is designed to be hit, which lowers the validity of the conclusions drawn about SLT.

A further strength is that SLT is less reductionist than behaviourism, as it recognises cognitive processes in learning and explains complex human behaviours, such as aggression and gender roles, and cultural differences in behaviour, which classical and operant conditioning cannot fully explain. It also has real-world application, for example in regulating



violent content in the media.

However, SLT underestimates the influence of biological factors.

Bandura found boys were more aggressive than girls regardless of condition, which may be due to hormones such as testosterone, which SLT does not explain. Also, the mediational processes are inferred rather than directly observed, so SLT is less scientific than

Extra space *behaviourism. Overall, SLT offers a useful explanation of learning, but works best alongside biological explanations.*



[illegible]

24



Section B**Psychopathology**

Answer **all** questions in this section.

0 7

Briefly outline how flooding might be used to treat a phobia.

[2 marks]

The person is immediately exposed to their phobic stimulus at full intensity, e.g. a person with a spider phobia is put in a room with a large spider, with no gradual build-up.

They are prevented from avoiding or escaping it, and exposure

Extra space *continues until their anxiety subsides and they are calm, so the fear response is extinguished.*

0 8

Briefly outline how systematic desensitisation might be used to treat a phobia.

[2 marks]

First the person is taught relaxation techniques, such as deep breathing. The patient and therapist construct an anxiety hierarchy, ranking situations involving the phobic stimulus from least to most frightening.

Extra space *The patient is then gradually exposed to each step of the hierarchy while relaxed, only moving up when calm, until relaxation replaces fear (counterconditioning) at the top level.*



0 9

Briefly discuss **one** reason why systematic desensitisation might be a more successful treatment for phobias than flooding.

[2 marks]

Systematic desensitisation is less traumatic than flooding, because the patient progresses in small steps at their own pace and the relaxation is pleasant, so they stay in control.

This means fewer patients drop out (lower attrition rates), and it is

Extra space *suitable for a wider range of patients, such as children, so more people complete the therapy and are successfully treated.*

Bob always checks that doors are locked and plug sockets are switched off. His checking routine has become very time consuming. He now feels overwhelmed with fears that his family could be in danger if he does not complete his checking routine. His doctor thinks Bob has obsessive compulsive disorder.

1 0

Explain what is meant by 'obsessions' and 'compulsions'. Refer to Bob in your answer.

[4 marks]

Obsessions are the cognitive part of OCD: persistent, intrusive and unwanted thoughts, images or impulses that cause high anxiety. Bob's obsession is the recurring, overwhelming fear that his family could be in danger if he does not complete his checking routine.

Compulsions are the behavioural part: repetitive behaviours or mental acts that the person feels driven to perform to reduce the anxiety caused by the obsessions. Bob's compulsion is repeatedly checking that the doors are locked and the plug sockets are switched off, which is

Extra space *now very time consuming.*



1 1

Bob's doctor is sending him for a brain scan and is looking into his family history.

How might the biological approach be used to explain Bob's obsessive-compulsive disorder?

[4 marks]

Genetic explanation: Bob's doctor is looking at his family history because OCD is thought to be partly inherited. Family studies show first degree relatives of OCD sufferers are more likely to have OCD (about 10%) than the general population (about 2%). Bob may have inherited candidate genes such as SERT or COMT, making him vulnerable (diathesis-stress), and OCD is polygenic.

Neural explanation: the brain scan may show abnormal brain activity.

Low levels of serotonin, which regulates mood, may mean Bob's

Extra space *anxiety is poorly controlled, as serotonin is reabsorbed too quickly. Overactivity in the orbitofrontal cortex, which detects threats, and in the basal ganglia may mean worry signals about danger are not switched off, causing Bob's repeated checking.*

1 2

Explain how findings of psychological research into the treatment of depression could have implications for the economy.

[2 marks]

Research showing that treatments such as CBT or SSRIs are effective may lead to better treatment programmes, so people with depression recover sooner and take less time off work.

This reduces the cost of sick days and benefits, increases productivity

Extra space *and boosts the economy, although funding effective treatments may add a financial burden to the NHS.*



1 3

Outline and evaluate **two** definitions of abnormality.**[8 marks]**

The deviation from social norms definition states that abnormal behaviour goes against the unwritten rules and expectations of acceptable behaviour in a society or culture, such as talking to strangers on public transport in the UK. Antisocial personality disorder is an example, as it involves a failure to conform to social norms of lawful behaviour.

A strength is that it considers the effect of behaviour on others and helps protect society. However, social norms vary between cultures, so behaviour judged abnormal in one culture may be normal in another, e.g. hearing voices is accepted in some cultures, leading to misdiagnosis of people from minority groups. Norms also change over time: homosexuality was classed as a mental disorder in the DSM until 1973, which shows the definition can be used to control people who do not conform. In addition, eccentric people who break social norms are not necessarily abnormal or in need of treatment.

The failure to function adequately definition states that a person is abnormal when they cannot cope with the demands of everyday life, such as maintaining basic hygiene, holding down a job or relationships. Rosenhan and Seligman (1989) proposed signs such as maladaptive behaviour, unpredictability, causing observer discomfort and personal distress.

A strength is that it recognises the patient's own perspective and subjective experience, and failure to function is easy to observe, for example using the Global Assessment of Functioning scale, which helps to decide who needs treatment. However, some people with mental



disorders, such as psychopaths, function adequately and do not feel distressed, so they would not be identified as abnormal. Also, some maladaptive behaviours, such as smoking or extreme sports, are not signs of abnormality. Judging adequate functioning is also subjective and may vary with culture.

Overall, neither definition is sufficient alone, so clinicians use a combination of definitions when diagnosing.

Extra space



24

Turn over for Section C



Section C

Research Methods

Answer **all** questions in this section.

Students often claim that listening to music helps them to concentrate. A psychologist was not aware of any previous research in this area. She decided to investigate this claim.

Forty students from a nearby sixth form centre volunteered to take part in her study. They each answered the following question:

‘Do you think that you concentrate on your work ‘better’, ‘worse’ or ‘the same’ if you listen to music while working?’

She obtained the results in Table 1.

Table 1: Responses to question - ‘Do you think that you concentrate on your work ‘better’, ‘worse’ or ‘the same’ if you listen to music while working?’

Better	Worse	The same
22	8	10

1 4

Should the hypothesis for this study be directional? Explain your answer.

[2 marks]

No, it should be non-directional (two-tailed). The psychologist was not aware of any previous research in this area, so there is no evidence to allow her to predict which direction the results would go.

Extra space



1 5

What percentage of the students reported that they would be able to concentrate 'better' if they listened to music while they worked? Show your workings.

[2 marks]

$$22 \div 40 = 0.55$$

$$0.55 \times 100 = 55\%$$

55% of the students reported they would concentrate better.

Extra space

1 6

Explain why using stratified sampling might improve this study.

[2 marks]

The sixth form has different subgroups, e.g. year groups and subjects studied. Stratified sampling would select students randomly from each subgroup in proportion to their numbers in the sixth form, so the sample would be more representative of the target population and the

Extra space findings could be generalised more confidently.

Unlike a volunteer sample, which may only include confident or motivated students, the researcher has no influence over who is selected within each stratum, reducing bias.

Turn over for the next question



1 7

The data collected in this study is primary data.

Explain what is meant by 'primary data'.

[2 marks]

Primary data is original, first hand data collected directly from the participants specifically for the purpose of the investigation being carried out, such as the students' own answers to the psychologist's question about concentration.

Extra space

In a follow-up study, the psychologist obtained a volunteer sample of 10 students aged 17 years from a different sixth form centre. Using a repeated measures design, participants were asked to complete two puzzle tasks as quickly as possible.

Task A was to find 10 differences in a 'spot the difference' puzzle while working in silence.

Task B was to find 10 differences in another 'spot the difference' puzzle while listening to music through headphones.

The tasks were counterbalanced and the time taken to complete each task was recorded for each student.

Table 2: Times taken (in seconds) to complete Task A (silence) and Task B (music)

Participant	Task A (silence)	Task B (music)
1	67	82
2	45	70
3	58	60
4	43	59
5	72	77
6	90	105
7	101	90
8	37	59
9	54	83
10	63	89



1 8

Explain **one** reason why the mean would be the most appropriate measure of central tendency to summarise the data in **Table 2**.

[2 marks]

The data is interval (time in seconds), so the mean is most sensitive as it uses every value in the calculation, making it the most representative of all the data.

1 9

Calculate the mean values for **both** Task A **and** Task B. Show your workings.

[4 marks]

Task A $67+45+58+43+72+90+101+37+54+63 = 630$

$630 \div 10$

Mean = 63 seconds

Task B $82+70+60+59+77+105+90+59+83+89 = 774$

$774 \div 10$

Mean = 77.4 seconds

Turn over for the next question



2 0

The psychologist used counterbalancing in the follow-up study.

Discuss the purpose of counterbalancing.

[3 marks]

In a repeated measures design, order effects such as practice or fatigue/boredom could affect performance on the second task.

Counterbalancing (ABBA) means half the participants do Task A (silence) first and half do Task B (music) first.

Each condition is done first and second equally often, so order effects are distributed evenly across both conditions and cancel out. However,

Extra space *it does not eliminate order effects, which still occur for each participant.*

2 1

Identify **one** possible extraneous variable that the psychologist should have controlled in this follow-up study. Explain how this variable might have affected the results of the study if it was not controlled.

[3 marks]

The difficulty of the two 'spot the difference' puzzles.

If the puzzle in Task B (music) was harder, e.g. with smaller differences to find, participants would take longer to find all 10 differences, so the longer times in the music condition could be due to the puzzle difficulty rather than the music, reducing internal validity.

Extra space



2 2

Explain how the follow-up study could be said to be an improvement on the original study.

[4 marks]

The original study used self-report, so the students only gave their opinion of whether they concentrate better. This may be inaccurate, as they may lack insight or give socially desirable answers. The follow-up study objectively measured concentration as the time taken to complete a task, so it is less open to bias and more objective. The follow-up study was an experiment where the IV (silence or music) was manipulated and its effect on the DV (time taken) measured, with counterbalancing to control order effects, so cause and effect can be established, which is not possible from the self-report questionnaire.

The follow-up study also produced quantitative ratio data (times in seconds) rather than just a choice of three categories, so more detailed analysis, such as calculating means, is possible. Its findings (music slowed most participants down) actually challenge the students' self-reports.

24

END OF QUESTIONS



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