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Centre number

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Candidate number

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Forename(s) _____

Candidate signature _____

I declare this is my own work.

INTERNATIONAL A-LEVEL PSYCHOLOGY

Unit 4 Approaches and application

Friday 13 June 2025

07:00 GMT

Time allowed: 1 hour 30 minutes

Materials

For this paper you must have:

- a calculator, which you are expected to use where appropriate.

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.
- All working must be shown.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 90.

For Examiner's Use	
Section	Mark
A	
B	
C	
TOTAL	



J U N 2 5 P S 0 4 0 1

Section A: Approaches in Psychology

Answer **all** questions in the spaces provided.

Kaira, who is 3 years old, watches her mother water some plants with a watering can. The next day, Kaira waters the plants using her toy watering can.

0 1 . 1 What is meant by mediational processes?

[2 marks]

Mediational processes are the cognitive (mental) processes that occur between observing a behaviour and producing (imitating) it. They are attention, retention, motor reproduction and motivation.

0 1 . 2 Using your knowledge of mediational processes, explain Kaira's behaviour.

[4 marks]

Attention: Kaira pays attention to her mother as she waters the plants with the watering can.

Retention: she stores the way her mother uses the watering can in her long-term memory, so she can recall it the next day.

Motor reproduction: she is physically able (has the manual dexterity) to reproduce the behaviour with her toy watering can.

Motivation: she is motivated to copy her mother because, especially at Kaira's age, the same-sex parent is a child's primary role model.



0 2

Briefly describe **two** ways in which evolution has affected behaviour.

[4 marks]

- 1 *Natural selection: genes of those best adapted to their surroundings are passed on, eg running fast to escape predators; also evolutionary explanations of sleep and phobias as adaptive.*
- 2 *Sexual selection: characteristics most attractive to the opposite sex are selected and passed on to future generations, eg brightly coloured male birds are chosen by females.*

0 3

Kamal has recently suffered a head injury and is now having difficulty making new memories.

Explain how a cognitive neuroscientist would investigate Kamal's difficulty.

[2 marks]

They would use a brain scan (eg fMRI) to record activity in Kamal's brain, such as the temporal lobe and hippocampus, while he completes a memory task, then compare it to a normal brain doing the same task to pinpoint the damaged area.

Turn over for the next question

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0 4

Psychologists often use theoretical and computer models to study mental processes such as memory.

Explain **one** strength **and one** limitation of the use of theoretical and computer models to study mental processes.

[6 marks]

A strength is that theoretical models allow us to visualise and test internal mental processes which cannot be seen directly. For example, the multi-store model predicted that delaying recall would reduce the retention of items in STM, which could then be tested experimentally. Models can also be changed in the light of new research: the case of KF, who had impaired STM for verbal but not visual information, challenged the idea of a unitary STM store and led to the working memory model. Computer models are also useful, because if a computer produces similar output to humans we can assume the processes are the same, and this has helped develop artificial intelligence.

A limitation is that the computer analogy is reductionist, as it ignores the influence of human emotion and motivation on thinking and decision

Extra space *making, eg the effect of leading questions or anxiety on eyewitness testimony. Computers do not forget stored information or ignore available information, which limits their ability to explain human thought. Models also rely on inference and are tested with artificial stimuli such as word lists, so conclusions may lack validity.*



0 5

Describe and evaluate Skinner's research into operant conditioning.

[12 marks]

Skinner emphasised the importance of consequences in shaping behaviour, which he called operant conditioning: behaviour followed by a pleasant consequence is likely to be repeated, while behaviour followed by an unpleasant consequence is less likely to be repeated.

To explore how animals learned in a controlled environment, he constructed a standardised piece of apparatus known as the Skinner box.

The box contained a lever which dispensed a food pellet when pressed, a buzzer or light to give audible or visual warnings, and an electrified floor section so that a mild shock could be delivered to the animal's feet.

Outside the box was a device (a cumulative recorder) which recorded the frequency of lever pressing.

In his research, a hungry rat was placed in the box. During its exploration it would accidentally press the lever, which delivered food. The food reward made lever pressing increase in frequency, so learning by positive reinforcement could be seen.

Skinner also experimented with negative reinforcement. The rat learned to run from one side of the box to the other to escape or avoid an unpleasant stimulus, such as an electric shock, which was pre-warned by a buzzer or light. Behaviour that removed the unpleasant stimulus was strengthened.

He also used punishment to see if he could decrease learned behaviour; for example, giving a shock every time the lever was pressed reduced lever-pressing behaviour. In addition, he studied schedules of reinforcement, finding that variable ratio reinforcement produced behaviour that was most resistant to extinction.

Turn over ►

A strength of Skinner's research is that the Skinner box was a highly controlled environment. Extraneous variables were minimised, so any change in the animals' behaviour could be attributed to the specific changes in the environment that Skinner made, allowing cause and effect to be established. The procedure was standardised and the recorder gave objective, quantitative data, making the research replicable and scientific. Skinner also developed a method of training complex behaviours using successive approximation (shaping), for example individually rewarding pigeons for each step involved in playing ping pong. These principles are now used to train a variety of animals in many different situations worldwide, such as guide dogs.

Further support comes from the many practical applications developed from his work, for example reward charts for children in school and at home, and token economies in prisons and psychiatric hospitals. Operant conditioning principles also form part of treatments for a wide variety of mental illnesses; for instance, behavioural activation, a component of cognitive behavioural therapy for depression, reinforces rewarding activities.

However, Skinner's research used animals such as rats and pigeons, and we should be cautious when generalising the findings to humans.

Extra space Humans have the ability to think and to choose whether or not to act, so human behaviour may not be controlled by consequences in the same way.

Linked to this, operant conditioning does not take into account thoughts or cognition, so it cannot explain more complex behaviour such as language or observational learning. Bandura's social learning theory showed that people can learn without being directly reinforced, through



mediational processes and vicarious reinforcement.

Operant conditioning is also reductionist (environmental reductionism)

because it concentrates on S-R units and fails to take account of the effects of society and group influences on an individual's behaviour. It is deterministic, implying humans have no free will.

Finally, it could be argued that Skinner's work is unethical, especially the use of negative reinforcement and punishment techniques such as electric shocks and food deprivation to train animals, which caused them stress and harm.

Overall, Skinner's research provided highly controlled, scientific evidence that consequences shape behaviour and has had valuable applications, but it offers an incomplete explanation of human behaviour because it ignores cognition, free will and social influence.



Section B: Issues and Debates in Psychology

Answer **all** questions in the spaces provided.

0	6
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Tariq says, "Psychology should be about finding causes for human behaviour so that laws can be identified."

Etta says, "I disagree. We have many opportunities to choose when and how we should do something. Looking for general laws is a waste of time."

Using your knowledge of free will and determinism, explain Tariq's comments and Etta's comments.

[4 marks]

Tariq believes in hard determinism: behaviour is caused by internal or external forces beyond our control. He thinks that knowing the causes of behaviour allows us to predict how humans will behave in certain situations, allowing the development of general laws that apply to everyone (a nomothetic, scientific approach).

Etta believes in free will: humans have personal agency and are free to make their own choices. A situation can therefore have so many outcomes that it is a 'waste of time' to try to predict behaviour.



0 7

Discuss the suggestion that our behaviour is best explained by our nature rather than our nurture. Refer to examples from psychology in your answer.

[6 marks]

There is support for nature from twin studies. Gottesman and Shields (1966) found higher concordance rates for schizophrenia in MZ twins than in DZ twins, and MacDonald and Schultz (2009) found that schizophrenia in one MZ twin makes it 99 times more likely that the other twin will also have it. Drug treatments also confirm the importance of nature, eg drugs that increase serotonin levels reduce depression.

However, taking a nature view means important nurture factors can be missed. In Gottesman and Shields' study, MZ concordance was never 100%, which suggests environmental factors, such as stress, trigger schizophrenia (diathesis-stress). The nature view is also deterministic, giving little hope of changing behaviour through learning, practice and
Extra space *study.*

Overall, nature alone is an incomplete view: nature and nurture interact. For example, the brain is hard-wired for language, but interaction with spoken language is necessary for language to fully develop. An interactionist approach therefore explains behaviour best.

Turn over for the next question

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0 8

Discuss the holism and reductionism debate. Refer to **two** topics you have studied in psychology.

[20 marks]

Reductionism is the idea that complex behaviours can be explained at a lower level by breaking them down into the simpler components that make them up. Holism is the idea that complex behaviours cannot be fully explained by reducing them to lower level explanations, but must be explained at the highest, holistic level, because the whole is greater than the sum of its parts.

Explanations can be placed on levels, from the social and environmental level (most holistic), through cognitive, behavioural and evolutionary levels, to the biological level (most reductionist). Biological reductionism explains behaviour in terms of genes, neurotransmitters and brain structures, whereas environmental reductionism explains behaviour as learned stimulus-response (S-R) associations.

Schizophrenia shows how behaviour can be explained at different levels.

The dopamine hypothesis is biologically reductionist: it explains positive symptoms such as hallucinations as being caused by excess dopamine activity in the mesolimbic pathway. Therapies follow this: typical

antipsychotics block D2 dopamine receptors, and atypical antipsychotics

also target serotonin, reducing positive and negative symptoms. More

holistic explanations, such as family dysfunction (eg expressed emotion)

and the diathesis-stress model, look at the person in their family and

social context.

Phobias can also be explained at different levels. The two-process model

is environmentally reductionist: the phobia is acquired through classical

conditioning (an NS is associated with fear) and maintained through



operant conditioning, as avoidance is negatively reinforced. Evolutionary explanations suggest we are biologically prepared to fear things that were dangerous to our ancestors, while the cognitive level focuses on irrational thinking.

A strength of reductionism is that reducing behaviour to basic units allows components to be isolated and tested individually, in line with the empirical method. For example, dopamine activity can be operationalised and measured in experiments and scans. This adds scientific credibility to psychology as a discipline.

Reductionism has also led to effective treatments. Knowing that low serotonin is associated with low mood led to the development of SSRIs, which improve mood by blocking the reuptake of serotonin. Similarly, isolating dopamine allowed targeted antipsychotic drugs to be developed, enabling many people with schizophrenia to return to health and to work, and systematic desensitisation for phobias was developed from conditioning principles.

However, reductionism oversimplifies complex behaviour and tends to work at the level of description rather than explanation. Reducing schizophrenia to dopamine or serotonin tells us nothing about the psychological dimension, such as how the patient feels, or why symptoms appear at a particular time. Antipsychotics do not work for all patients, and the two-process model cannot explain why many people with phobias recall no traumatic conditioning event.

In comparison, holism emphasises the whole person and the context in which behaviour occurs rather than its component parts. This is beneficial because it is more likely to find the meaning behind behaviour, through the collection of rich qualitative data such as

Turn over ►



interviews and personal construct tests. For example, understanding a
 Extra space patient's experiences, family and stress can explain relapse in
 schizophrenia, and family therapy reduces relapse in a way drugs alone
 cannot.

Holism also takes account of the social context in which behaviour
 occurs. Group processes, such as conformity through normative and
 informational influence, social facilitation and social loafing, only occur as
 a result of being in a group, so individual behaviour in these situations
 could not be studied without the social context. Asch's conformity
 research shows behaviour that cannot be reduced to an individual's
 biology.

However, it is difficult to test the whole person in a scientific way.

Holistic research often uses case studies and qualitative methods, which
 are hard to replicate and generalise, so there is a lack of empirical
 evidence to support a holistic view. Holistic explanations also struggle to
 identify which factor is most important, so they are less useful for
 developing practical treatments.

Overall, both positions have value. Reductionism provides scientific,
 testable explanations and effective treatments, while holism provides a
 fuller understanding of the meaning and context of behaviour. An
 interactionist approach, such as the diathesis-stress model of
 schizophrenia, which combines biological vulnerability with environmental
 stress, is probably the most complete way to explain behaviour.



Section C: Applied Psychology: Work and the Individual

Answer **all** questions in the spaces provided.

Only **one** answer per question is allowed.

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 9 . 1 Which **one** of the following statements about social facilitation is **correct**?

Shade **one** box only.

[1 mark]

- A** An individual performs better in the presence of an audience when the task is difficult.
- B** An individual performs better in the presence of an audience when the task is easy.
- C** An individual performs worse in the presence of an audience when the task is difficult.
- D** An individual performs worse in the presence of an audience when the task is easy.



0 9 . 2 Which **one** of the following statements is **true** of group decision making?

Shade **one** box only.

[1 mark]

- A** Group decisions are less extreme than those of individual members.
- B** Group decisions are less polarised than those of individual members.
- C** Group decisions are less reasonable than those of individual members.
- D** Group decisions are less risky than those of individual members.



Turn over ►



1 0

Briefly evaluate research into the effects of workload and control.

[4 marks]

Marmot (1997) and Johansson et al (1978) show clear links between lack of control (decision latitude) at work and mental and physical health problems. However, the job demands-control model is over-simplistic, ignoring factors such as support from colleagues and how workload and control are perceived, lowering validity. Research may be culturally biased, as control is less desirable in collectivist cultures, though Liu et al (2007) found no cultural differences in workload being seen as stressful.

1 1

What is meant by need theory?

[2 marks]

Need theory is an explanation of motivation based on the drives and desires that motivate us to satisfy a need. These needs can be intrinsic (eg self-esteem) or extrinsic (eg money).

1 2

Briefly explain **one** strength **and one** limitation of need theory.

[4 marks]

A strength is that it is supported by Maslow's hierarchy of needs, eg monetary reward meets basic needs by paying rent (extrinsic satisfaction), while work offering intrinsic satisfaction meets higher order needs such as self-esteem. It can be applied to a range of workplaces.

A limitation is that it is culturally biased, as needs are not the same in all cultures, eg collectivist cultures value the needs of the group over those of the individual.



1 3 . 1

Maria is on a school visit to a factory that makes cakes. There are 150 students on the visit, all wearing their school uniform. At the end of the visit, there is a table with small cakes on it and a sign saying, 'Please take one free cake.' Maria notices that she is alone at the table and she takes two cakes.

Using your knowledge of deindividuation, explain why Maria takes two cakes.

[3 marks]

Maria experiences deindividuation, a loss of self-regulation and self-responsibility, because wearing the same school uniform as 150 other students makes her anonymous. This anonymity reduces her restraints against behaviour that would otherwise be inhibited, such as ignoring the sign. Her loss of individual identity makes her feel less accountable, so she takes two cakes.

1 3 . 2

On the bus, on the way home from the cake factory, Maria's friends are singing loudly. Maria thinks the behaviour of her friends is wrong, but she joins in and sings loudly.

Using your knowledge of social identity theory, explain why Maria joins in and sings loudly.

[3 marks]

As part of the group, Maria's sense of self shifts from her personal identity to a group (social) identity. Her behaviour is now directed by the group's norms, so although she thinks singing loudly is wrong, she sings like her in-group rather than acting as an individual. This maintains her in-group status and sense of belonging.

Turn over for the next question

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1	4
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Briefly explain **one** strength of deindividuation as an explanation of group membership effects.

[3 marks]

There is research support for deindividuation. Zimbardo (1969) found that anonymous participants wearing hoods delivered shocks for twice as long as those wearing name tags. Silke (2003) found that violent attacks in Northern Ireland were more likely to be carried out by disguised people, supporting the role of anonymity in aggressive behaviour in real life.

1	5
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What is meant by personal space?

[2 marks]

Personal space is a particular area, like a personal bubble, that people keep to themselves when communicating, and this area determines the type and level of interaction that will take place.



1 6

Kim attended work conferences in two different countries.

In **Country A**, she felt uncomfortable, because people she had only just met stood very close to her.

In **Country B**, she felt uncomfortable, because people stood so far away from her that it was difficult to have a private conversation.

Using your knowledge of cultural differences in personal space, explain why Kim felt uncomfortable in both countries.

[4 marks]

In Country A, the personal space for interacting with people is smaller than in Kim's own culture. Kim perceives the closeness of people she has only just met as a desire for familiarity or intimacy, so she feels her personal space is being invaded.

In Country B, the personal space is larger than in her own culture, so people standing too far away does not feel intimate enough, and Kim finds it difficult to have a private conversation.

1 7

Explain **one** limitation of research into personal space.

[3 marks]

Research may lack temporal validity. The original research was carried out in the 1960s (Hall, 1963), and as people have become more global through travel and the media, cultural differences in personal space are reducing, so the findings may no longer apply today. This means the research may overestimate cultural differences in personal space, limiting its usefulness for explaining behaviour today.

30

END OF QUESTIONS



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[illegible]

