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INTERNATIONAL A-LEVEL PSYCHOLOGY

Unit 4 Approaches and application

Tuesday 16 January 2024 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	
Question	Mark
A	
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Section A: Approaches in Psychology

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

Only **two** answers per question are allowed.

For each 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 **two** of the following researchers are best associated with the behaviourist approach in psychology?

Shade **two** boxes.

[2 marks]

A Bandura

☐

B Ellis

☐

C Pavlov

☒

D Piaget

☐

E Skinner

☒


0 2

Jenny keeps the food for her dog in a large container. She keeps the food for her cat in a small container. When Jenny takes out the large container her dog begins to salivate. However, this does not happen when she takes out the small container.

Use your knowledge of classical conditioning to explain the dog's behaviour when Jenny takes out the large container **and** when she takes out the small container.

[4 marks]

Food (UCS) produces salivation (UCR) as a reflex. Each time Jenny took out the large container (NS) the dog received food, so the dog associated the two. The large container became a conditioned stimulus (CS) that now produces salivation on its own as a learned, conditioned response (CR).

The small container (cat food) is never paired with food for the dog, so it is not a CS and the dog does not salivate.

0 3

Briefly outline the biological approach in psychology.

[2 marks]

The biological approach sees behaviour as caused by physical processes in the body: genes (eg inherited factors in schizophrenia), neurochemistry (eg serotonin in depression) and brain structures (eg the hippocampus in forming new memories).

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0 4

A study was conducted into the role of schemas in memory. Participants were asked to listen to a story that came from a different culture. They were then asked to recall the story. The stories that were recalled were much shorter than the original story, because lots of the cultural details had been left out.

Using your knowledge of the role of schemas, explain the results of this study.

[4 marks]

Schemas are mental frameworks of knowledge, based on past experience and culture, which we use to process, store and reconstruct information. Because the story came from a different culture, it contained cultural details for which the participants had no existing schemas. Information that does not fit an existing schema cannot be processed and stored accurately, so it is not available to be recalled. The participants therefore left these unfamiliar details out, which is why their recalled stories were much shorter than the original.

0 5

Evaluate the cognitive approach.

[6 marks]

Many studies support the approach, eg Piaget's work on schemas and the multi-store model of memory, and Loftus's research on eyewitness testimony shows the fragility of memory. Beck's and Ellis's work on negative thinking led to CBT, an effective treatment for depression and schizophrenia. Lab studies and brain scans are objective and replicable, and cognitive neuroscience now links brain areas to behaviours. Its soft determinism allows some free will. However, it relies on inferences, as mental processes are assumed from behaviour, so they may be inaccurate, and artificial lab tasks lack ecological validity.



0 6

Arlo's father is baking a cake. Arlo, who is 3 years old, has his own bowl of ingredients. When his father mixes his ingredients with a spoon, Arlo watches carefully. Then Arlo gets a spoon and mixes the ingredients in his bowl.

Discuss social learning theory. Refer to Arlo in your answer.

[12 marks]

Social learning theory (SLT), developed by Bandura, states that behaviour is learned indirectly through observation and imitation of others in a social context. Arlo, who is 3, watches carefully as his father mixes the ingredients with a spoon, and then imitates this by mixing the ingredients in his own bowl, so he has learned through observation rather than direct reinforcement.

The person observed is a role model. Models are more likely to be imitated if they have high status, are powerful or warm, or are perceived to be similar to the observer, eg the same sex. Identification occurs when the observer wants to be like the model. Arlo's father is a male, high-status adult whom Arlo looks up to, so Arlo identifies with him and is motivated to copy his actions.

Learning can also be indirect through vicarious reinforcement: seeing a model rewarded for a behaviour makes imitation more likely, while seeing them punished makes it less likely. If Arlo sees his father enjoying the cake or being praised for it, this would vicariously reinforce baking for him.

Bandura proposed four mediational (cognitive) processes between observing and imitating. Attention: Arlo pays close attention to the way his father mixes the ingredients. Retention: he must store a memory of the mixing action. Motor reproduction: he must be physically capable of the behaviour, and at 3 he can hold a spoon and stir. Motivation: he must expect a reward, such as his father's praise or a tasty cake.

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Bandura et al (1961) supported SLT in the Bobo doll study. Children aged 3 to 5 watched an adult model act aggressively towards an inflatable Bobo doll, eg hitting it with a mallet, or act non-aggressively. Later, after being mildly frustrated, children who had seen the aggressive model reproduced many of the specific aggressive acts, whereas those who saw the non-aggressive model showed little aggression. Boys were more likely to imitate a male model than a female model, while there was little difference for girls, supporting the role of identification with same-sex models, as with Arlo and his father. There is also support for vicarious reinforcement. In a variation (Bandura, 1965), children saw the model either told off for aggression towards the doll or rewarded with sweets and lemonade. Children who saw the model rewarded were more likely to reproduce the behaviour than those who saw the model punished, showing the consequences of a model's behaviour affect imitation.

However, there are methodological criticisms of Bandura's research, which weaken the support for SLT. The lab setting lacked ecological validity, as a Bobo doll is designed to be hit and does not hit back, so it may not reflect real aggression towards people. Children may also have shown demand characteristics, believing they were expected to hit the doll. Ethically, the children were frustrated and exposed to aggression, which may have had lasting effects.

A strength is that SLT includes mediational processes, which behaviourism ignored. This explains why imitation does not always happen, or may be delayed, and why learning can occur without direct reinforcement, making it less reductionist than operant conditioning.



Extra space *SLT has valuable real-world applications. It has made a contribution to media regulation to protect children, eg age certificates on films and video games. It has also helped understanding of the role of social learning in food preferences and eating disorders, and modelling is used as a treatment for phobias, where patients watch a model calmly interact with the feared object.*

On the other hand, SLT overemphasises the social context and underestimates biological factors. For example, hormones such as testosterone affect aggressive behaviour, which may explain why boys were more physically aggressive in the Bobo doll study. Arlo's ability to mix the ingredients also depends on his biological maturation of motor skills, not just on observation.

Overall, SLT gives a convincing explanation of how Arlo learned to mix the ingredients by watching his father, and it is supported by controlled research, but a complete explanation should also consider biological influences on behaviour.

30

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Section B: Issues and Debates in Psychology

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

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Palika notices that people seem to be happier when the sun is shining than when it rains. She thinks that scores on a test of happiness will be higher when people are tested on days when the sun is shining, than when they are tested on days when it rains.

She decides to investigate her idea that being in the sun makes people happy.

Use your knowledge of theory construction **and** hypothesis testing to explain how Palika might carry out her investigation.

[4 marks]

Palika's theory is that the weather affects happiness. She will develop a testable hypothesis: 'Participants tested on sunny days (experimental group) will score higher on a happiness scale than those tested on rainy days (control group).' The null hypothesis is that there will be no difference in happiness scores between sun and rain. After analysing the scores statistically she will retain or reject the null hypothesis. If her data contradict her theory, she must change it.



0 8

Explain **one** strength and **one** limitation of using the empirical method in psychology.
[6 marks]

Strength *The empirical method uses objective observation and measurement of behaviour, so findings are not affected by the researcher's emotions or prejudices and events are recorded as they happen. Methods can be controlled, so findings can be repeated with similar results. This gives research credibility, so it is accepted by the scientific community.*

Limitation *It is reductionist, as it isolates one small aspect of behaviour and ignores other influences. It also often tells us that a behaviour occurs but not why: the quantitative data collected miss rich detail, such as thoughts, feelings and intentions, that could explain the behaviour. A holistic approach may be better, as people are complex.*

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0 9

Discuss the nature-nurture debate in psychology. Refer to **two** topics you have studied in your answer.

[20 marks]

The nature-nurture debate concerns the causes of behaviour. Nativists argue that behaviour comes from internal causes (nature), such as biological features including genes, neurochemistry and brain structure, and that characteristics are inherited and appear through maturation.

Empiricists argue that humans are social animals and the causes of behaviour are external (nurture), coming from the environment through learning and experience, for example conditioning or social learning.

The two sides research the causes of behaviour differently. Research into nature often uses twin studies, adoption studies, brain scans and biochemical studies to identify biological processes that may determine behaviour. Research into nurture examines people's behaviour in different social contexts and environments. The interactionist approach considers both sides of the debate and recognises that interaction between a person's biological processes and their environment shapes their behaviour, as in the diathesis-stress model, where an inherited vulnerability only leads to a disorder when triggered by environmental stress. Epigenetics also shows that the environment can change how genes are expressed.

My first topic is depression. The nature side argues that depression is caused by biological factors, eg low levels of the neurotransmitter serotonin, or a genetic predisposition. This explains the effectiveness of drug therapy, such as SSRIs, which increase the availability of serotonin. The nurture side is shown by cognitive explanations, eg Beck's negative triad and Ellis's ABC model, where depression results from faulty, irrational thinking learned through experience. This led to cognitive



therapy (CBT), which challenges negative thoughts. A combination of drugs and CBT is often the most effective treatment, which supports the interactionist approach.

My second topic is job motivation. Needs theories, such as Maslow's hierarchy of needs, emphasise nature, as motivation comes from internal, innate needs, from physiological needs up to self-actualisation.

Goal-setting theory (Locke) emphasises nurture, as external goals, feedback and rewards set by the workplace direct behaviour. Job motivation is therefore best explained by an interaction of internal needs (nature) and external goal-setting (nurture), for example an employee with a need for achievement performs best when also given specific, challenging goals.

Research evidence supports both sides. Held and Hein (1963) used a kitten carousel: kittens that moved actively developed normal visual-motor co-ordination, while passive kittens did not, suggesting that innate abilities need environmental experience to develop. Maguire et al (2000) found that London taxi drivers had a larger posterior hippocampus than controls, and that its size correlated with years of experience, showing that the environment (nurture) can change brain structure, which supports neural plasticity.

Engel (1977) argued that illnesses such as heart disease are caused by many factors, including genetic inheritance, lifestyle such as smoking, and the ability to cope with stress. This biopsychosocial view supports the interactionist approach, and most psychologists now recognise that many behaviours are caused by a variety of nature and nurture factors. A strength of the interactionist approach is that it is holistic, as it

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Extra space looks at the whole person and the various internal and external forces acting on them, which allows for better treatments, as in depression. However, because it takes a holistic view it is very difficult to test scientifically, as so many interacting variables cannot be isolated and manipulated, and it is hard to say how much each factor contributes.

Taking an extreme position on either side also has problems. A purely nature view is biologically determinist and reductionist, and could be used to justify discrimination if behaviours are seen as fixed. A purely nurture view is environmentally determinist and ignores research such as twin studies showing concordance for disorders: MZ twins have much higher concordance for schizophrenia than DZ twins, but as it is never 100%, the environment must also play a part.

There are also practical and methodological issues. Twin and family studies cannot fully separate genes and environment, as families share both, and adoption studies are affected by selective placement. However, understanding the debate has useful applications, for example in deciding whether to treat depression with drugs, therapy or both.

In conclusion, it is not possible to separate nature and nurture in topics such as depression and job motivation. The most useful position is the interactionist approach, which accepts that behaviour results from the interaction of biological and environmental factors, even though this is harder to test scientifically.



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Section C: Applied Psychology: Work and the Individual

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

1 0

Kyle has observed a lesson given by a teacher in his department. Kyle has some ideas about how the teacher could improve his teaching. As he has very little time, Kyle decides to send his ideas to the teacher in an email, rather than having a meeting together.

Using your knowledge of the effects of email communication, explain why it might be better for Kyle to give his ideas for improvement in a meeting together rather than in an email.

[3 marks]

In a meeting, non-verbal cues (nodding, smiling, facial expressions) help Kyle build rapport and seem supportive. Seeing the teacher's reaction in real time avoids damaging their rapport, and the teacher's replies help Kyle understand his thinking, which email does not allow. By email Kyle may focus egocentrically on his own opinions, and the teacher may ignore the advice.

1 1

Briefly explain **two** limitations of research studies into cultural differences in personal space.

[4 marks]

Limitation 1 *Some psychologists overestimated cultural differences (Hall, 1966), as behaviours such as not making eye contact and using bags as barriers seem to be universal.*

Limitation 2 *Research has focused on horizontal space and neglected vertical space, which tends to be very similar across cultures (Hall et al, 2005), so it is incomplete.*



1 2

Researchers looked at the stress-related illness records for two groups of workers. They counted the number of days the workers were absent.

Group A (low control): the workers were given a work schedule to follow.

Group B (high control): the workers arranged their own work schedules.

Table 1 shows the stress-related illness records for the two groups of workers.

Table 1 The number of days absent due to stress-related illness

Group A (low control)	Group B (high control)
180 days	64 days

Using your knowledge of the effects of workload and control on stress, explain the findings in **Table 1**.

[3 marks]

Group A had low control (low decision latitude) over their workload, following a set schedule, which increases stress and the likelihood of stress-related illness, so absence was very high (180 days). Group B had high control over their schedules, reducing stress, so absence was about a third of group A's (64 days). This shows a link between control over workload and illness.

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1 3

Describe and evaluate research into group decision-making.

[20 marks]

Group decision-making research shows that decisions made by groups often differ from those individuals would make alone. Group polarisation is where the group decision is more extreme than the original individual attitudes of its members, in whichever direction the group was initially leaning. It operates through social comparison (normative social influence), where members shift their view to be seen positively and fit in with the group norm, and informational social influence, where members hear new, persuasive arguments supporting the dominant view during discussion.

Risky shift is a particular form of polarised group decision-making, in which the group makes a riskier decision than the individuals would make alone. It may occur because of diffusion of responsibility, as no single person is blamed if the decision fails, and because risk-taking is valued in some groups.

Groupthink (Janis, 1982) occurs where the desire for group cohesion results in an irrational or dysfunctional decision-making outcome. Janis cited three main causes: high group cohesiveness, where unity must be maintained at all costs; structural faults, such as a closed leadership style and group insulation; and situational context, eg stressful external events. He also described three types of symptoms: overestimations of the group in terms of its power and morality; closed-mindedness and the view of the opposition as weak; and pressures towards uniformity, such as self-censorship and the illusion of unanimity.

There is research support for group polarisation. Isenberg (1986) carried out a meta-analysis and found that social comparison and informational



social influence operate simultaneously, but each could lead to group polarisation on its own. Mock jury trials (Bray and Noble, 1978) showed that group discussion led to harsher or more lenient punishments than those given by individual jurors, showing polarisation in a realistic decision. This has important implications for the justice system.

Stoner (1961) found risky shift: decisions made by groups of students on dilemmas were riskier than those made individually beforehand, and individual decisions were also riskier after group discussion, suggesting acceptance of the group's decision. However, Stoner's research used management students, who might perceive risk as a desirable attribute and so not want to appear cautious in front of their peers. This is a bias in the results and reduces population validity. Wallach et al (1962) addressed this by using participants for whom risk was not particularly important, and still found similar risky shift results, which strengthens the concept.

Risky shift can also explain cultural differences in decision-making, as risk-taking is a desirable characteristic in some cultures and is more likely to be expressed in a group setting. However, risky shift could instead be the effect of having an extrovert leader, as groups with such leaders are more likely to take risky decisions, so it may reflect individual differences rather than a group process. Also, groups sometimes shift towards caution (cautious shift), which suggests group polarisation is a better explanation than risky shift alone.

Support for groupthink is weaker. Park (1990) carried out a meta-analysis and found only 16 published studies on groupthink, and these showed little or no support for the concept as a whole. Fodor and

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Extra space *Smith (1982) found that leaders with high power motivation create atmospheres more susceptible to groupthink, so it may be an individual rather than a group phenomenon. However, group homogeneity and group insulation are supported as factors likely to lead to groupthink.*

Groupthink is based on case studies of real groups, eg the Bay of Pigs invasion, so it has high ecological validity, but it is difficult to test empirically, as real decisions cannot be manipulated and such analyses are retrospective and may be biased by knowing the outcome. Laboratory studies of decision-making, on the other hand, often use students and artificial tasks with no real consequences, so they lack ecological validity. Despite these issues, the research has useful applications at work.

Organisations can reduce groupthink by having leaders stay impartial, inviting outside experts and appointing a 'devil's advocate' to challenge decisions, and juries can be made aware of polarisation.

Overall, there is good evidence that groups polarise decisions, but research into risky shift and groupthink is more mixed, suggesting that individual factors such as leadership style also influence group decision-making.

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