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INTERNATIONAL A-LEVEL PSYCHOLOGY

Unit 4 Approaches and Application

Monday 24 January 2022 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	



Section A: Approaches in Psychology

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

Only **one** answer per question is 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

Lily and Adil were in the classroom. The teacher said, "Tidy your desks or you will not be allowed to have playtime." Lily and Adil tidied their desks as they did not want to miss playtime.

Using your knowledge of operant conditioning, explain the type of reinforcement used by the teacher.

[4 marks]

The teacher is using negative reinforcement. This is when a behaviour is strengthened because it allows the person to avoid or escape an unpleasant (aversive) consequence. Here the aversive stimulus is the playtime ban. Lily and Adil tidy their desks (the behaviour) so that they avoid not being allowed to play, preventing something unpleasant from happening. Because tidying removes the threat of the ban, negative reinforcement increases the likelihood that they will repeat the tidying behaviour when asked in future.



0 2

Briefly outline what cognitive psychologists mean by a schema.

[2 marks]

A schema is a mental representation or cognitive structure, a 'package' of knowledge built up from past experience, that contains our knowledge and expectations about an object, concept, person or situation in the world.

0 3

Briefly explain why schemas are important in cognitive processing.

[2 marks]

Schemas help us make sense of new information ('effort after meaning') and simplify a complex world, so we can take shortcuts and predict what will happen. They can also distort memory, eg Bartlett's 'War of the Ghosts' study.

0 4

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

[1 mark]

- A** Cognitive neuroscience focuses on biological processes involved in cognitive functions.
- B** Cognitive neuroscience is only the study of biological processes in the brain.
- C** Cognitive neuroscience is the study of the nervous system only.
- D** Cognitive neuroscience links the workings of the brain and social psychology.



Turn over for the next question

Turn over ►



0 5

Discuss what researchers have learnt about the influence of neurochemistry on behaviour. In your answer, refer to a topic you have studied in psychology.

[9 marks]

Neurochemistry is the study of the chemical processes that take place in the nervous system. Neurotransmitters such as dopamine, serotonin and noradrenaline are essential for the transmission of nerve impulses across the synapse, and chemical processes in the brain are responsible for many aspects of psychological functioning. An imbalance of certain chemicals may cause abnormal behaviour and thoughts. Scientific techniques such as single cell recording of neuronal activity and scanning techniques such as PET scans are used to study the actions of neurons in the CNS.

One topic is schizophrenia. The dopamine hypothesis states that an increase in dopamine activity in the subcortical (mesolimbic) areas, linked to D2 receptors, is responsible for the positive symptoms such as hallucinations and delusions. Low dopamine activity in the frontal parts of the brain (D1 receptors) may cause negative symptoms such as avolition. A reduction in glutamate activity may also increase dopamine and lead to symptoms. Antipsychotic drugs that block dopamine receptors were developed from this. Neurochemistry also affects sleep: REM sleep seems to depend on noradrenaline and NREM sleep on serotonin.

Extra space Biochemistry explains the causes of psychological problems and has led to effective drugs. Investigating neurochemicals uses scientific methods, so research is objective and replicable. However, this approach favours the nature side of the nature-nurture debate, overemphasising biology and heritability at the expense of environmental influences, eg stress. It is also reductionist, as complex characteristics



are reduced to biological processes, and dopamine changes may be an effect of schizophrenia rather than a cause.

0	6
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Malik loves football and always watches his favourite team. He admires one player, Beck, who often scores a goal. When Beck scores, the crowd shouts with joy. Malik has practised Beck's technique and he now regularly scores for his school team.

Explain how social learning theory could be applied to Malik's footballing skills.

[6 marks]

Social learning theory says behaviour is learned through observation and modelling. Malik has observed his favourite player, Beck, scoring goals and has imitated this behaviour. Beck is a role model, and Malik identifies with him as he admires him and they are the same sex (male), which makes imitation more likely.

Malik may also have been vicariously reinforced. He observed the consequence of Beck's behaviour: when Beck scores, the crowd shouts with joy. Seeing Beck rewarded makes Malik expect similar rewards, so he is more likely to copy the behaviour.

Mediational processes explain the four stages of Malik's learning.

Attention: he watches Beck closely whenever he plays. Retention: he extracts and remembers information about Beck's technique. Motivation: he wants the same praise, so he decides to perform the act.

Reproduction: he practises Beck's technique until he can reproduce it, and

Extra space *he now regularly scores for his school team, where his goals are directly reinforced too.*

Turn over ►



0 7

Evaluate social learning theory.

[6 marks]

A strength is that there is research support for social learning theory.

Bandura et al (1961) found that children who observed an adult behaving aggressively towards a Bobo doll imitated many of the specific aggressive acts, whereas those who saw a non-aggressive model did not. These controlled lab studies are objective and replicable and can show cause and effect.

SLT also improves on behaviourism by acknowledging the importance of cognitions, such as attention and retention, in learning, which explains why learning can occur without direct reinforcement. It can be applied to many areas, eg aggression, education and the effects of media role models.

However, Bandura's work has been criticised. The Bobo doll is designed to be hit, so the children may have shown demand characteristics, and the lab setting lacks ecological validity, which weakens support for the theory. SLT also cannot explain all behaviour, such as behaviour shown

Extra space *when there has been no observation or role model. Finally, it does not take sufficient note of biology: boys were more physically aggressive than girls, which may reflect hormones such as testosterone rather than observation alone.*

30



Section B: Issues and Debates in PsychologyAnswer **all** questions in the spaces provided.**0 8**Explain **one** difference between hard determinism and soft determinism.**[4 marks]**

One difference between hard and soft determinism lies in the possibility of free will. Hard determinism excludes any possibility of free will: it states that all behaviour is caused by forces outside a person's control, such as genes, so we have no real choice.

Soft determinism, on the other hand, states that only some elements of behaviour are determined while some are open to free will. Behaviour is constrained by biology and environment, but within these limits people can still make conscious choices.

0 9Briefly explain **one** strength and **one** limitation of taking a hard determinist approach in psychology.**[4 marks]**

Strength: hard determinism is scientific, as it assumes behaviour has causes that can be identified, so psychology can establish laws and theories that predict behaviour. Twin studies showing genes determine some behaviour support this.

Limitation: hard determinism takes all control away from the person. This is inconsistent with the legal system, which presumes people choose how to behave and holds them responsible, and it could reduce motivation, as people may feel they cannot influence outcomes.

Turn over ►

1 0

What is meant by the empirical method in psychology?

[2 marks]

The empirical method is gaining knowledge through direct sensory experience, objectively, rather than through belief or argument. Data are gathered using scientific, controlled research methods such as observation and experiments, so claims can be tested.

1 1

Tai and Kim were talking after class. Tai said, "I think human behaviour and experiences are too complex to be explained by simple biological processes." Kim replied, "I disagree, I think human behaviour and experiences can be reduced to separate parts to gain a better understanding."

Discuss the holism and reductionism debate in psychology. Refer to Tai and Kim in your answer.

[20 marks]

Reductionism is the belief that complex human behaviour is best understood by breaking it down into its simplest component parts. This is similar to sciences such as physics and biology. Levels of explanation range from the highest, holistic level (social and cultural), through psychological, down to physiology, neurochemistry and ultimately atoms. Biological reductionism explains behaviour in terms of genes, brain structure and neurotransmitters. Environmental (stimulus-response) reductionism, as in behaviourism, explains behaviour as learned associations between stimuli and responses.

Holism argues that 'the whole is greater than the sum of its parts'. To understand a person, the whole person must be considered, because analysing component parts such as the brain or a single personality trait does not allow an understanding of the whole person. The humanistic approach is holistic: Maslow believed that the 'entire' human was more than just a collection of biology, cognitions or learned behaviours.

Tai is arguing against biological reductionism and for a more holistic



explanation, as he says behaviour and experiences are 'too complex' to be explained by simple biological processes. Kim takes a reductionist position, as she believes that reducing behaviour to separate parts gives a better understanding. For example, understanding that schizophrenia is linked to abnormal levels of the neurotransmitter dopamine has led to effective antipsychotic drug treatments.

Kim's view is supported by the fact that reductionism attempts to explain human and animal behaviour in a scientific way. Component parts can be operationalised and tested empirically, eg memory experiments testing the capacity of short-term memory. This shows cause and effect and gives psychology scientific credibility.

However, Tai would argue that reductionism leads to an over-simplification of human behaviour. Reducing schizophrenia to excess dopamine ignores the psychological and social dimensions, such as family stress, and antipsychotics do not work for everyone, so the explanation is incomplete. Environmental reductionism also ignores thoughts and emotions by focusing only on observable behaviour.

A further problem for reductionism is that it is difficult to combine findings from component parts into a unified theory. For example, although we know a lot about memory, it is not known how this links to other cognitive components such as perception and attention. Some behaviour, eg crowd behaviour, only appears in groups and cannot be explained by studying individuals.

Holism seeks to integrate the different components in order to

Extra space understand the person as a whole, which supports Tai's view.

This gives a more complete picture, and the holistic approach has led to useful applications, such as client-centred therapy, which treats the

Turn over ►



person as a whole and focuses on their subjective experience.

However, the holistic approach does not lend itself to scientific testing.

If all aspects of a person must be considered together, it becomes

difficult to isolate variables, so explanations become vague and hard to

test or falsify. Holism also neglects biology, whereas the reductionist

approach emphasises its importance to human behaviour.

In conclusion, Kim's view is scientific and useful but oversimplifies, while

Tai's is more complete but hard to test. An interactionist approach, eg

the diathesis-stress model, combining levels of explanation may be best.



Section C: Applied Psychology: Work and the Individual

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

Only **one** answer per question is 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. 

1 2

Which **one** of the following is a key type of goal in goal-setting theory?

Shade **one** box.

[1 mark]

A Expected goal



B Medium goal



C Performance goal



D Specific goal



1 3

Ana was returning to work after a serious illness. Her manager wanted to welcome her back.

Referring to effects of email communication, explain why a face-to-face welcome would be better in this case.

[2 marks]

Up to 50% of a message is non-verbal (eye contact, smiling, posture), and this is lost in a text-based email, so it is hard to give the right tone and build rapport. Face-to-face, the manager can show empathy for Ana and read her feedback to adjust what they say.

Turn over ►



1 4

Evaluate research studies **and/or** theory of workplace stress.**[9 marks]**

Research into workplace stress has a problem: because there are many sources of stress in the workplace, it is difficult for any single study to investigate all of them. Most studies have concentrated on workload and control, leaving out other sources, such as relationships at work and role conflict, and the possible interaction of these variables.

The longitudinal study by Marmot et al (1997) of civil servants found support for the importance of lack of control: those in lower grades with low job control were more likely to develop stress-related illness such as coronary heart disease. The study was large scale, with about 7000 participants over 5 years, which aids generalisation. However, there were methodological issues: job control was measured using self-report, which may be affected by social desirability bias; the sample of civil servants may be biased; and it ignored other factors that might have contributed, such as smoking or life outside work.

There is support for Marmot's finding that control is a key feature of workplace stress. Johansson et al (1978) found that sawmill 'finishers', whose work was repetitive, machine-paced and low in control, had higher stress hormones and more illness and absence than a control group.

Karasek (1990) also found that increasing job control reduced stress-related illness, which supports the job demands-control (JD-C)

Extra space model.

Theory can also be evaluated. Research supports the usefulness of the job demands-resources (JD-R) model, eg Nielsen et al (2011) and Baka (2015) found that resources such as social support reduce the negative effects of high demands. The JD-R model is more complex, realistic and



flexible than the earlier JD-C model, as it includes a wide range of resources, not just control, and it provides practical suggestions to reduce strain and burnout in the workplace, although its complexity makes it hard to test as a whole.

1	5
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A burger restaurant and a pizza restaurant are next door to each other. The workers in the two restaurants dislike one another. Ken works in the burger restaurant and wears a red uniform. Although he doesn't know the workers in the pizza restaurant, Ken sees they have blue uniforms and he refers to them in negative ways.

Using your knowledge of deindividuation **and** social identity theory, explain why Ken has negative feelings towards the workers in the pizza restaurant.

[6 marks]

Deindividuation: as part of the burger restaurant group, Ken has lost his sense of individuality and become deindividuated. Wearing the same red uniform as his co-workers makes him anonymous within the group, so his own identity becomes submerged into the group identity. He loses his sense of personal responsibility and self-awareness, which makes him behave differently from how he would alone, and he goes along with the group's dislike of the pizza workers even though he does not know them.

Social identity theory: when Ken is with the burger restaurant workers, he takes on a social identity formed through group membership, symbolised by the red uniform, and his sense of self switches from the personal to the social level. Through social categorisation he sees the burger workers as his in-group and the blue-uniformed pizza workers as the out-group. To boost his self-esteem he favours his in-group and views the out-group negatively (social comparison). His behaviour is guided by the group's norms, so, like the rest of the group, he dislikes

Extra space *the rival restaurant workers and refers to them in negative ways.*

Turn over ►



1 6

Discuss what psychologists have discovered about cultural differences in personal space.

[12 marks]

Personal space is the invisible area around a person that they regard as their own, and it determines the type and level of social interaction.

Hall (1963) introduced the study of proxemics, which describes the interpersonal distance people keep during social interactions. Hall identified four zones: intimate space (up to about 0.5 m, for close relationships), personal space (about 0.5 to 1.2 m, for friends), social space (about 1.2 to 3.5 m, for acquaintances and work) and public space (over 3.5 m, for public speaking).

Hall proposed a distinction between cultures in how their proxemics reflect social norms. He described 'contact' cultures, such as Latin America and the Middle East, which accept a much closer physical distance than 'non-contact' cultures such as Northern Europe and North America. For example, Japanese people sit further apart than Venezuelans. Sussman and Rosenfeld (1982) found that Japanese students sat further apart than Venezuelan students when talking in their own language, with Americans in between, and that when speaking English the foreign students adopted distances closer to American norms. This suggests personal space norms are learned through culture.

A strength of this research is that there is support from a range of studies. A large meta-analysis by Hall et al (2005) supports the cross-cultural findings. Matsumoto and Juang (2008) report that cultures



differ in their use of space according to dimensions such as individualism-collectivism, and Wang et al (2008) also found cultural differences.

There is also biological evidence that helps explain reactions to personal space. Kennedy et al (2009) found that the amygdala is responsible for emotional reactions to personal space invasion: a patient with amygdala damage had no sense of personal space, and fMRI showed amygdala activation in healthy people when someone stood close. This occurs in both humans and animals, suggesting that personal space has an innate basis, with culture determining the preferred distance.

However, Hall focused on horizontal space, but vertical space can also be

Extra space a factor, eg a doctor standing over a patient conveys status.

There is evidence that vertical space is not as affected cross-culturally, so Hall's account is incomplete.

Much of this research also lacks ecological validity, as distance is often measured in artificial settings, eg chair placement in a lab, which may not reflect behaviour in natural interactions. Classifying whole cultures as 'contact' or 'non-contact' also risks stereotyping and ignores individual differences within a culture, such as gender, age, status and the relationship between people, which also affect personal space.

Nevertheless, the research is useful, as understanding these differences can reduce misunderstanding in multicultural workplaces.

END OF QUESTIONS



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