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Centre number

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I declare this is my own work.

INTERNATIONAL A-LEVEL PSYCHOLOGY

Unit 4 Approaches and Application

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.

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Family studies of people diagnosed with schizophrenia have been carried out. One study found a 13% risk of being diagnosed with schizophrenia if one parent had also been diagnosed with schizophrenia. The risk rose to 46% if both parents had been diagnosed with schizophrenia.

Explain how family studies allow psychologists to understand genetic influences on behaviour. Refer to the study above in your answer.

[4 marks]

Family studies compare the rates of a behaviour or disorder in relatives who share different amounts of genes. If the greater the genetic similarity between people, the greater the concordance for the disorder, this provides evidence for a genetic basis to the behaviour.

In the study, a child with one parent with schizophrenia has a 13% risk, as they share 50% of their genes with that parent, but this rises to 46% when both parents are diagnosed, more than three times the risk.

This increase suggests schizophrenia runs in families and is likely to have a genetic basis, although families also share an environment, so nurture cannot be ruled out.



0 2

Evaluate the use of computer models to explain mental processes.

[6 marks]

A strength is that computer models allow psychologists to understand mental processes that are not directly observable, such as memory and attention. By describing the mind as an information processing system with input, storage and output, models such as the multi-store model of memory make specific predictions that are open to empirical testing; they are widely used and give cognitive psychology scientific credibility. However, computer models oversimplify complex human processes. They are too mechanistic and machine reductionist: by focusing on information processing, models such as the multi-store model ignore social and emotional influences on behaviour and assume humans process information as logically as a computer.

Also, many models are 'bottom-up' because they rely on processing incoming information from the senses, whereas many of our interpretations in the real world are 'top-down' and rely on existing knowledge and schemas. Connectionist models, which describe networks of linked units working in parallel, are more appropriate for explaining top-down processing, so serial computer models give only a partial explanation of mental processes.

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0 3

Describe and evaluate the behaviourist approach in psychology. In your answer refer to **one or more** topics you have studied.

[20 marks]

The behaviourist approach argues that all behaviour is learned from the environment and that psychology should study only observable, measurable behaviour rather than unobservable mental processes. It assumes that we are born as a 'blank slate', that the same laws of learning apply to animals and humans, and that learning occurs through association, either classical or operant conditioning.

Classical conditioning is learning by association between two stimuli. Pavlov found that food, an unconditioned stimulus (UCS), produced salivation in dogs, an unconditioned response (UCR). When a bell, a neutral stimulus, was repeatedly paired with the food, the dogs learned to salivate to the bell alone, so the bell became a conditioned stimulus (CS) producing a conditioned response (CR). If the CS was then presented repeatedly without the UCS, the CR gradually disappeared (extinction).

Operant conditioning is learning by association between a response and its consequence. Skinner placed rats and pigeons in a Skinner box and found that bar pressing which was followed by a food pellet was repeated. Positive reinforcement is receiving a pleasant consequence and negative reinforcement is the removal of an unpleasant stimulus, and both strengthen behaviour, whereas punishment weakens it. Primary reinforcers such as food satisfy a biological need, while secondary reinforcers such as money or tokens gain their value through association with primary reinforcers.

These principles are applied to phobias. The two-process model (Mowrer) states that a phobia is acquired through classical conditioning, eg in the



Little Albert study (Watson and Rayner, 1920) a white rat was paired with a loud frightening noise until Albert feared the rat. The phobia is then maintained through operant conditioning, because avoiding the feared object reduces anxiety, which negatively reinforces the avoidance. Behaviourism has also led to treatments. Systematic desensitisation uses counterconditioning; the patient learns a relaxation response and works through an anxiety hierarchy, from the least to the most feared situation, until the feared stimulus is associated with relaxation instead of fear. Token economy systems in schools and other institutions use secondary reinforcers such as stars, stickers or tokens, which can be exchanged for rewards, to reinforce desired behaviour. A strength of the behaviourist approach is that it enhanced the scientific status of psychology. It uses objective scientific methods, such as laboratory experiments with systematic manipulation of variables and a high level of control, and focuses on observable behaviour, so cause and effect can be demonstrated and studies such as Skinner's can be replicated, increasing reliability. Another strength is its practical applications. Systematic desensitisation is an effective, quick treatment for specific phobias, and token economies have successfully improved behaviour in classrooms and psychiatric institutions. However, the approach oversimplifies all behaviour into stimulus-response (S-R) links. It ignores the mental processes involved in learning. Social learning theory shows that people learn by observing models, with mediational processes such as attention and motivation, eg Bandura's Bobo doll study found children imitated aggression without being directly

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reinforced. The two-process model also cannot explain why some people develop phobias without any traumatic experience.

The approach is also environmentally deterministic, seeing behaviour as controlled by past reinforcement, which contrasts with the notion of free will and personal responsibility held by humanistic psychologists. There are ethical issues associated with the control and manipulation of behaviour, eg Little Albert was deliberately made fearful.

Furthermore, behaviourists rely heavily on animal studies, such as Skinner's rats and pigeons, and the application of the laws of learning to humans has been criticised, because humans have more complex thought, language and emotion.

Overall, behaviourism has made psychology more scientific and has useful applications, but it provides only a partial explanation of behaviour as it neglects cognition, biology and free will.

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Section B: Issues and Debates in PsychologyAnswer **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 4**Which **one** of the following is the main feature of falsifiability?Shade **one** box.**[1 mark]****A** Researchers attempt to falsify the aim.☐**B** Researchers attempt to falsify the experimental hypothesis.☐**C** Researchers attempt to falsify the null hypothesis.☒**D** Researchers attempt to falsify the statistical test.☐**0 5 . 1**Name **one** type of determinism.**[1 mark]***Biological determinism.*



0 5 . 2

Briefly outline what is meant by the free will and determinism debate.

[2 marks]

It is a debate about the extent to which our behaviour is governed by our own choices (free will), or whether behaviour is shaped and controlled by other forces outside our control, such as biology or the environment (determinism).

0 5 . 3

There are many people, including some psychologists, who believe that we have free will.

Explain **at least one** advantage of having a belief in free will.**[4 marks]**

One advantage is that a belief in free will allows for the development of moral responsibility and moral decision-making. If people believe they have chosen how to act, they can be held accountable for their behaviour, which justifies the existence of prisons and the judicial process, as criminals are seen as responsible for their crimes.

Another advantage is that believing we can choose between courses of action allows us to see a purpose to our existence. Cognitive psychologists believe free will is essential to decision-making: when we reflect on our behaviour we can decide to alter it in the future, eg a person with depression can choose to challenge negative thoughts in CBT, which gives a sense of control and better mental health.

Turn over ►

0 6

The empirical method is a scientific approach to collecting evidence, for example by conducting experiments and observations.

Evaluate the use of the empirical method in psychology.

[6 marks]

A strength is that the empirical method means evidence is gained through objective methods such as experiments and observations, where behaviour is directly observed and measured rather than based on opinion or introspection. This means theories can be tested and falsified, giving psychology greater scientific credibility.

Empirical methods also ensure that data is objective and free from researcher bias, ie it is not distorted by the emotions, beliefs and values of the researcher. Standardised procedures allow other researchers to replicate the research and check the reliability of findings.

However, the emphasis on objectivity adopts a view of people as predictable and controllable, like objects in natural science. This takes away the essence of what it is to be human, such as subjective experience and some free will, which humanistic psychologists argue cannot be measured.

In addition, many empirical methods, eg laboratory experiments, create artificial situations and there may be a problem generalising to real life (lack of ecological validity), eg watching film clips of crashes in Loftus and Palmer's study.



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There are different levels of explanation in psychology.

Explain how going for a walk with a friend can be understood at **both** a reductionist level **and** a holistic level.

[4 marks]

At a reductionist level, going for a walk with a friend can be explained at a lower, physiological level, eg motor neurons in the brain send messages to the muscles of the legs so that we walk. Here the behaviour and psychological processes are reduced to particular types of brain activity (biological reductionism).

At a holistic level, a higher, sociocultural level of explanation would include the social and cultural influences involved, such as the enjoyment of companionship, sharing conversation and the cultural meaning of walking together. This draws on the emotional and social meanings of going for a walk with a friend, seeing the experience as a whole.

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0 8

Two friends were talking after a Psychology lesson.

Bilal said, "You are a good football player because you have your parents' genes." Abdullah replied, "Maybe, but my parents also took me to watch a lot of football matches and I play in two football teams."

Discuss what is meant by an interactionist approach to the nature-nurture debate. Refer to Bilal and Abdullah in your answer.

[12 marks]

The nature-nurture debate concerns the extent to which behaviour is the result of inherited, innate factors (nature) or of the environment and experience (nurture). Interactionism is a position that considers behaviour to be influenced by both nature and nurture, and that neither alone can provide a complete explanation of behaviour.

The interactionist approach accepts that some knowledge and abilities are innate, due to the influence of heredity, but that the environment and experience are also important. As it makes no sense to separate nature and nurture, interactionists study how the two interact and influence each other, eg a genetic predisposition may only be expressed in a particular environment.

Bilal takes a nature view: he believes that Abdullah's footballing skills are inherited from his parents' genes and so his ability is innate. Abdullah acknowledges that he might have inherited some of his skill when he replies 'maybe', but he also points out that he has observed a lot of football by going to matches with his parents and practised by playing in two teams.

Abdullah is therefore suggesting an interactionist position. He may have inherited some physical qualities, such as coordination, but these have been enhanced through observation and learning in the environment, eg imitation of role models and reinforcement from coaches. His parents' genes may also have influenced his environment, as parents who enjoy



football are more likely to take him to matches.

Most psychologists now believe that it is not either nature or nurture that affects behaviour, but how they interact and influence each other.

Research is therefore mainly concerned with the relative importance of heredity (nature) and environment (nurture) for a behaviour, rather than asking which one is responsible.

An example is research into schizophrenia. Twin studies show that even identical twins with identical DNA have only approximately 58% concordance, which indicates that nurture also plays a major part in the development of schizophrenia. This is explained by the diathesis-stress model, in which a genetic vulnerability (diathesis) only leads to the disorder when triggered by environmental stressors.

The cognitive approach also supports an interactionist explanation. Piaget's theory of cognitive development proposes an innate series of stages, but the rate of progression is influenced by the environment and the opportunities a child has to explore, just as Abdullah's ability needed opportunities to develop.

A strength of interactionism is that it gives a more complete and realistic explanation than either extreme. However, it is difficult to measure the separate contributions of nature and nurture, as they cannot be separated, so the approach can be hard to test scientifically.

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Section C: Applied Psychology: Work and the Individual

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

0 9 . 1 One feature of goal-setting theory is goal specificity.

Name **two** other features of goal-setting theory.

[2 marks]

Goal difficulty.

Goal acceptance.

0 9 . 2 The manager of a supermarket wanted to motivate the shop workers to keep the supermarket shelves tidy and well stocked with food.

Explain how the manager could use **at least one** feature of goal-setting theory to motivate the shop workers.

[6 marks]

The manager should use goal specificity by making the goal very clear and precise. For example, each shop worker would know their designated area and it would be their specific responsibility to ensure the shelves in that area are tidy and well stocked.

The goal should also be difficult enough to be challenging but realistic enough to be achievable (goal difficulty), eg each worker could have a goal to ensure their area is tidy and fully stocked at the end of each day ready for the morning.

The manager should gain acceptance for the goal, which is best done collaboratively, eg by holding a meeting with the shop workers to explain the plan so they can all discuss and agree the goals (goal acceptance).

To increase goal commitment, workers need a personal interest in the



goal, eg through a desire to gain knowledge (mastery goal), such as a training course in safe stocking, or to appear competent (performance goal), such as a weekly competition for the tidiest area.

0 9 . 3

Explain **one** strength of goal-setting theory.

[4 marks]

One strength is that there is research evidence for the effectiveness of goal-setting theory. Latham and Baldes (1975) studied truck drivers carrying logs to a mill who were set a specific, difficult goal of loading their trucks to 94% of the legal weight limit, rather than being told to 'do your best'.

Their performance rose from around 60% to over 90% of the maximum load within a few months and stayed high, saving the company a large amount of money. This supports the theory's claim that specific, difficult goals improve performance, and it shows the theory has practical value, as it is widely used in management, eg the SMART technique.

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1 0

Mr Taylor owns a taxi business. He is working 16 hours each day but still cannot complete all the work he has to do. He feels things are getting out of his control because he does not have enough people working for him.

Explain how the effects of workload **and** control might lead to workplace stress for Mr Taylor.

[6 marks]

Mr Taylor has a high workload, as he cannot complete all his work even though he works 16 hours a day. He is under constant time pressure and the demands of his job require a lot of physical and mental effort, causing strain. Research such as Demerouti et al (2001) has found that high job demands lead to stress and exhaustion, so his long hours and unfinished work are likely to cause workplace stress.

Mr Taylor also feels things are getting out of his control because he does not have enough staff. He may normally have a strong internal locus of control, which would give him greater resistance to stress, but he cannot control his present situation, so he has limited decision latitude.

According to Karasek's (1979) job demands-control model, a job with high demands and low decision latitude is a high strain job, which is most associated with workplace stress. Marmot et al (1997) found that lack of control had a significant negative effect, being linked to stress-related illness such as heart disease, so Mr Taylor's combination of high workload and feeling out of control makes workplace stress very likely.



1 1

Describe and evaluate social identity theory.

[12 marks]

Social identity theory (SIT) (Tajfel and Turner) explains how we form a view of who we are, based on our personality, self-concept and the roles we undertake. Part of our self-concept comes from the social groups we belong to, and the theory is based on research into in-groups and out-groups. An in-group is a social group of which a person psychologically identifies as being a member, whereas an out-group is a social group with which a person does not identify.

SIT suggests there are three key stages when we become a member of an in-group. First, social categorisation, where we label ourselves and others as belonging to groups, eg manager or tennis player. Second, social identification, where by identifying with that group we take up that identity in our own and others' eyes, adopting its norms and values. Third, social comparison, where we compare our group with others. We define our group in positive terms, which reinforces our positive view of ourselves and boosts self-esteem, while out-groups may be seen in negative terms.

In the workplace, in-groups can be defined at a macro level, such as the organisation you work for, or at a micro level, such as your role or department within the organisation.

A strength of SIT is that it can explain how stereotyping, prejudice and discrimination can occur, as favouring the in-group and seeing the out-group negatively raises self-esteem. This has practical applications, eg managers can reduce conflict between departments by creating a shared, superordinate organisational identity.

There is support for SIT from experiments into minimal groups. Tajfel et

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al (1971) randomly allocated schoolboys to groups on a trivial basis, eg preferring paintings by Klee or Kandinsky. When allocating points, the boys favoured their own group, even choosing to maximise the difference between groups rather than the total reward, showing that simply being categorised into a group is enough to produce in-group favouritism.

However, minimal group experiments are artificial, so they may lack ecological validity, and the boys may have shown demand characteristics.

SIT may also be culturally specific: Wetherell (1982) found that

Polynesian children in New Zealand were more generous towards the out-group than white children, suggesting that more co-operative, collectivist societies have different cultural norms.

Another criticism is that SIT presents prejudice as a natural drive to boost self-esteem, which may be used as a justification for prejudice and discrimination. It also fails to explain why in-group favouritism leads to hostility in some situations but not others, so other factors, such as competition for resources, are needed.

Overall, SIT provides a useful explanation of group behaviour and intergroup relations at work, though it does not fully account for cultural and individual differences.



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END OF QUESTIONS



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