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Centre number

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Candidate signature

I declare this is my own work.

AS PSYCHOLOGY

Paper 2 Psychology in Context

Thursday 14 May 2020

Afternoon

Time allowed: 1 hour 30 minutes

Materials

For this paper you may use:

- 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.
- 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 72.
- You will be assessed on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

For Examiner's Use	
Section	Mark
A	
B	
C	
TOTAL	



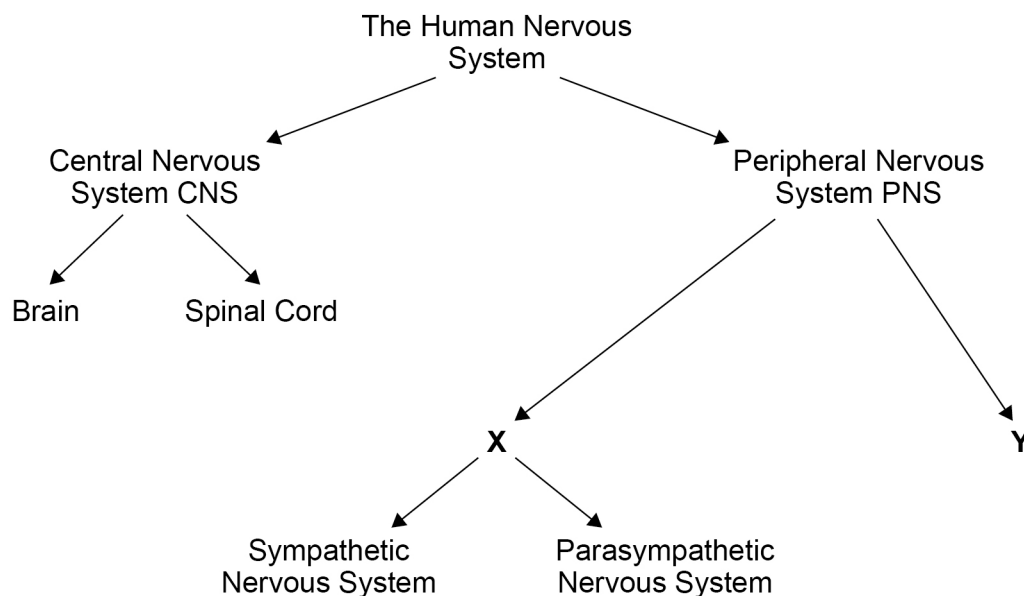
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Section A**Approaches in Psychology**Answer **all** questions in this section.**0 1**

Outline Wundt's method of introspection.

[3 marks]

Introspection is the systematic analysis of one's own conscious experience. Wundt aimed to break conscious experience down into its basic component parts, such as sensations, images and emotional reactions (structuralism). Trained participants were presented with standardised stimuli, such as the ticking of a metronome, and reported their reactions. Training made the reports more objective.

0 2**Figure 1** shows the divisions of the nervous system.**Figure 1 Divisions of the nervous system****0 2 . 1**Name the division of the nervous system labelled **X** in **Figure 1**.**[1 mark]**

Autonomic nervous system.



0 2 . 2

Name the division of the nervous system labelled **Y** in **Figure 1**. Explain the action of this part of the nervous system.

[3 marks]

Somatic nervous system.

It transmits sensory information from sense receptors in the body to the central nervous system, and carries motor commands from the brain, via the spinal cord, to the skeletal muscles to produce voluntary movements.

It therefore links the brain with the outside world. It is also involved in involuntary reflex arcs, e.g. withdrawing a hand from a hot object.

0 3

Carissa has just started learning to knit and she watches carefully when her aunt is knitting. She thinks about how her aunt holds the needles and how she pulls the wool through her fingers. Carissa wonders if she can do the same with her needles and wool. She tries to copy her aunt's actions as she wants her knitting to be neat and accurate.

Referring to Carissa's experiences, explain the role of mediational processes in learning.

[4 marks]

Social learning theory says that cognitive mediational processes occur between observing a model's behaviour and imitating it. First, attention:

Carissa watches carefully when her aunt is knitting, so she notices the behaviour of her model. Second, retention: she thinks about how her aunt holds the needles and pulls the wool through her fingers, forming a mental representation of the behaviour that is stored in memory so it can be recalled later.

Third, motor reproduction: Carissa wonders if she can do the same with her own needles and wool, judging whether she has the physical ability (competence) to reproduce the actions. Finally, motivation: she wants her knitting to be neat and accurate, so the expected reward makes her want to perform the behaviour, which is why she tries to copy her aunt.

Turn over ►



0 4

A teacher investigated the effects of operant conditioning using two separate groups of eight-year-old children:

Group A: the teacher rewarded a class of children with smiley stickers on their classwork as well as the usual ticks and comments.

Group B: the teacher rewarded a different class of children with only the usual ticks and comments on their classwork.

After two weeks, the teacher calculated the average classwork score for the children in **Group A** and the average classwork score for the children in **Group B**.

The results are in **Table 1**.

Table 1 Average classwork score for Group A and Group B

Group A Stickers	Group B No stickers
8	6

0 4 . 1

Outline **one** difference between classical conditioning and operant conditioning.

[2 marks]

In classical conditioning learning occurs through association between two stimuli, a neutral stimulus and an unconditioned stimulus, and the response is involuntary (a reflex, e.g. salivation). In operant conditioning learning occurs through association between a voluntary behaviour and its consequence, e.g. reinforcement increases the behaviour.

0 4 . 2

Explain the type of reinforcement being used by the teacher in this investigation.

[3 marks]

The teacher is using positive reinforcement in both groups. After good classwork, a pleasant consequence is added: ticks and comments for Group B, and ticks, comments and smiley stickers for Group A. These rewards follow the behaviour, so they increase the likelihood of the children repeating it and producing good work again. This shapes their behaviour as the teacher wants.



0 4 . 3

The teacher concluded that smiley stickers may not have been the only thing that caused the difference in average scores between **Group A** and **Group B**. The teacher was concerned because the children in each class were different.

Explain **one** way the teacher could change the experimental design to deal with this issue.

[2 marks]

The teacher could use a repeated measures design, so the same class of children takes part in both conditions: two weeks with smiley stickers and two weeks with only ticks and comments. This removes participant variables, such as ability, as a cause of the difference. The order of conditions should be counterbalanced to control order effects such as practice.

0 5

Explain **one** assumption of the cognitive approach.

[3 marks]

One assumption is that psychology should study internal mental processes, such as memory, perception and attention. Although these cannot be observed directly, it is appropriate to make inferences about them from behaviour in controlled experiments. They often use theoretical models, such as the multi-store model of memory, and computer models of information processing.

0 6

Explain **one** limitation of the cognitive approach.

[3 marks]

One limitation is that the approach relies on inference. Mental processes cannot be observed, so researchers infer them from behaviour, which can be subjective. Also, comparing the mind to a computer is machine reductionism: it ignores the influence of emotion and motivation on cognition, e.g. anxiety affects memory in a way a computer would not show.

24

Turn over ►



Section B

Psychopathology

Answer **all** questions in this section.

Sami describes her life:

"I am always terrified of germs and worry that my family is in danger too. I think that the meals I prepare will make them ill. I wash all the food items I can, at least three times, and I cannot touch any food with my bare hands. It takes me ages to prepare meals."

0 7

Outline **two** characteristics of obsessive-compulsive disorder. Refer to Sami in your answer.

[4 marks]

One characteristic is obsessions: persistent, intrusive and irrational thoughts that cause extreme anxiety. Sami has catastrophic thoughts that the meals she prepares will make her family ill, and she says she is always terrified of germs.

Another characteristic is compulsions: repetitive behaviours performed to reduce the anxiety caused by the obsessions. Sami washes all the food items at least three times and will not touch any food with her bare hands, which is why preparing meals takes her ages.

0 8

Researchers discovered a strong positive correlation between the number of therapy sessions attended by people with obsessive-compulsive disorder and their well-being ratings.

Explain why it would not be appropriate to conclude that therapy increases well-being ratings.

[2 marks]

This is a correlation, so no independent variable was manipulated and cause and effect cannot be established. A third, untested variable, such as support from family, might increase both attendance at therapy and well-being ratings.



0 9

Stan has a phobia of lifts. He was stuck for three hours in a broken lift when he was young. He feels sick when he sees a lift and now he cannot use escalators or ride on roller coasters in case they break down. He feels calm when he uses the stairs.

How could Stan's phobia be explained using the two-process model?

[4 marks]

Mowrer's model says Stan's phobia was acquired through classical conditioning when the lift (a neutral stimulus) was paired with being trapped for three hours, an unconditioned stimulus that caused fear (UCR). The lift became a conditioned stimulus, so now seeing a lift produces a conditioned fear response, which is why he feels sick when he sees one.

Through stimulus generalisation the fear has spread to similar stimuli where moving machines might break down, such as escalators and roller

Extra space *coasters. The phobia is maintained by operant conditioning: when Stan avoids lifts and uses the stairs he feels calm, so his anxiety is removed. This negatively reinforces the avoidance behaviour, so the phobia is not extinguished.*

1 0

Briefly outline flooding as a treatment for phobias.

[2 marks]

Flooding involves immediate exposure to the phobic stimulus at its most frightening, without a gradual build-up, and the person is prevented from avoiding it, e.g. a person with a phobia of lifts stays in a lift for a long session. Because the fear response is exhausting and cannot be maintained, anxiety eventually subsides, so the fear response is extinguished and the person learns that the stimulus is harmless.

Turn over for the next question

Turn over ►



1 1

Outline and evaluate the biological approach to explaining **and/or** treating obsessive-compulsive disorder.

[12 marks]

You may use this space to plan your answer.

The biological approach explains OCD in terms of genetic and neural factors. Genetic explanations argue that some people inherit a vulnerability (diathesis) to OCD. Candidate genes have been identified, such as the SERT gene, which affects the transport of serotonin, and the COMT gene, which regulates dopamine. OCD appears to be polygenic: many genes, possibly up to 230, each contribute a small amount to the risk.

Neural explanations focus on neurotransmitters and brain structures. Low levels of serotonin, which regulates mood, are linked to OCD, because serotonin may be reabsorbed too quickly from the synapse before the impulse is passed on. Abnormal activity in the orbitofrontal cortex, which generates worry, and the caudate nucleus within the basal ganglia, which normally suppresses these signals, may create a loop of anxious thoughts sent to the thalamus. This may explain repetitive behaviours and impaired decision making.

The main biological treatment is drug therapy, which aims to correct the serotonin imbalance. SSRIs, such as fluoxetine (typically 20 mg daily, increased if the patient does not benefit), block the reuptake of serotonin into the presynaptic neuron, so more serotonin stays in the



synapse and continues to stimulate the postsynaptic neuron. They usually take three to four months of daily use to reduce symptoms. Alternatives include tricyclics, such as clomipramine, and SNRIs, while benzodiazepines may be used to reduce anxiety.

One strength of the genetic explanation is supporting evidence. Nestadt et al. (2010) reviewed twin studies and found that 68% of identical twins shared OCD compared with 31% of non-identical twins, suggesting a strong genetic component. However, concordance is not 100%, so environmental factors must also be involved, and family similarities could reflect shared environments as well as shared genes. Some cases of OCD follow trauma, suggesting not all OCD is biological in origin, which supports a diathesis-stress view.

A further limitation is that so many candidate genes are involved that the genetic explanation has little predictive value: we cannot use genes to predict who will develop OCD. Neural explanations also have a problem with cause and effect. Abnormal serotonin levels or brain activity may be a consequence of OCD rather than its cause, and neural differences are not consistent between sufferers.

A strength of drug therapy is that it is effective. Soomro et al. (2009) reviewed studies and found that SSRIs were more effective than placebos in reducing OCD symptoms. Drugs are also cost-effective and non-disruptive compared with psychological therapies such as CBT, as patients simply take tablets rather than attend weekly sessions. However, only around half of patients improve, so low serotonin cannot be the only cause of OCD.

Drugs also have side effects such as indigestion, weight gain and loss of sexual desire, which may lead patients to stop treatment, and symptoms

Turn over ►



*often return when medication stops, so drugs manage rather than cure
OCD. The evidence may also be biased, as Goldacre (2013) argued that
drug companies have a vested interest and may not publish negative
findings. Overall, the biological approach offers useful explanations and*

Extra space *effective treatments, but a combined approach including
psychological therapy may be most effective.*



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Section C

Research Methods

Answer **all** questions in this section.

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.



Researchers wanted to see if there was a difference in the number of students choosing to use various work spaces in the college library. Previous research findings on this topic were inconsistent.

There were three types of work space available in the library:

- single desks with a chair
- large tables with chairs
- settees with low tables.

The researchers used CCTV camera recordings of the different work space areas taken over three days. From each day, they analysed two hours' worth of recordings from the morning and two hours' worth of recordings from the afternoon. They noted down the number of students seen working at each of the three work spaces.

1 2

Should the hypothesis for this observation be directional or non-directional?

Explain your answer.

[2 marks]

Non-directional, because previous research findings on this topic were

inconsistent, so the researchers cannot predict which work space will be

used most.



1 3

Which **two** of the following procedures did the researchers use in this study?

Shade **two** boxes.

[2 marks]

A Controlled observation

☐

B Event sampling

☒

C Natural experiment

☐

D Naturalistic observation

☒

E Random sampling

☐
1 4

Explain why watching students covertly should reduce demand characteristics in this study.

[2 marks]

Because the students do not know they are being watched, they cannot guess the aim of the study or change their behaviour to fit what they think the researchers want. Their choice of work space will therefore be their natural, everyday behaviour in the library, which increases the validity of the data.

Turn over for the next question

Turn over ►



The results of the library study are shown in **Table 2**.

Table 2 Total number of students working in each work space

	Single desks with a chair	Large tables with chairs	Settees with low tables
Morning	34	22	120
Afternoon	37	23	183

1 5

Summarise the findings of this study using the data in **Table 2**.

[4 marks]

The settees with low tables were by far the most popular work space, with 303 students in total (120 in the morning and 183 in the afternoon), compared with 71 at single desks (34 + 37) and 45 at large tables (22 + 23).

The large tables with chairs were the least popular work space overall (45 < 71 < 303).

More students used the work spaces in the afternoon (243) than in the morning (176).

Extra space *Use of single desks and large tables stayed about the same between morning and afternoon, but there was a clear increase in use of the settees, from 120 to 183, so the increase in the afternoon was almost entirely due to the settees.*



Students who were in the library over the three-day period were asked to complete a questionnaire about their work space use.

The questionnaire contained only closed questions.

1 6

Explain **one** way in which using open questions, in addition to closed questions, might improve the questionnaire.

[2 marks]

Open questions would let students explain in their own words why they choose a particular work space, giving qualitative data with detailed insight into the reasons behind their behaviour, which could suggest ideas for further research.

Question 4 on the questionnaire was 'Which of the following work spaces do you use most often in the library?'

The results for question 4 are shown in **Table 3** below.

Table 3 Responses to question 4

Question 4 options	Total responses
working at a single desk with a chair	310
working at a large table with chairs	78
working on a settee with low tables	31

Table 3 includes only the responses of students whose data was analysed in the first part of the study.

1 7

Compare the results given in **Table 2** with those seen in **Table 3**.

What conclusion could now be made from these two sets of data? Explain your answer.

[4 marks]

The data in the two tables contradict each other. In the observation (Table 2) the settees were by far the most used work space (303), but on the questionnaire most students claimed they used single desks most often (310) and only 31 said settees.

This suggests that students did not answer the questionnaire honestly and gave socially desirable answers. They may have wanted to appear studious, as settees are associated with relaxing, so the observation is probably the more valid measure of work space use.

Turn over ►



1 8

The researchers observed recordings of students in the library and obtained questionnaire responses from students in their investigations into workspace use.

Briefly explain ethical issues that the researchers involved in these studies of student behaviour should have considered.

[4 marks]

Consent: the students were observed covertly on CCTV, so they could not give informed consent. Observation in a public place like a library may be acceptable, but the researchers should respect privacy and only record behaviour people would expect to be seen in public.

Confidentiality: recordings and questionnaires should be anonymised, using numbers rather than names, and stored securely. Students should be debriefed and offered the right to withdraw their data.

In a final, follow-up study, the researchers wanted to know if there was a difference in the type of work students engaged in at each of the three workspaces. Again, they conducted an observation study using CCTV recording.

Before the observation could begin the researchers needed to operationalise the behavioural category 'type of work'.

1 9

Explain what is meant by operationalisation and suggest **two** ways in which 'type of work' could be operationalised.

[4 marks]

Operationalisation means clearly defining a behavioural category in terms of specific observable actions, so that the behaviour can be measured objectively and reliably by different observers.

'Type of work' could be operationalised as: (1) writing notes by hand on paper; (2) typing on a laptop. A third could be reading a printed book.

24**END OF QUESTIONS**

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