Cambridge Assessment International Education

Cambridge International AS & A Level

PSYCHOLOGY **9990/41**

Paper 4 Specialist Options: Application **October/November 2020**

1 hour 30 minutes

0498208998

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **four** questions in total:
  - Answer questions from **two** options.
    - Section A: answer **two** questions.
    - Section B: answer **one** question.
    - Section C: answer **one** question.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **8** pages. Blank pages are indicated.

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Section A

You must answer **two** questions from this section.
Answer all the parts for the two questions you choose.

Psychology and abnormality

1 The case study of little Albert

An experimenter made a loud noise behind little Albert who jumped, gasped and raised his arms. The second time the experimenter did this, Albert trembled and almost cried. The third time, Albert cried suddenly. So the experimenter had shown that an emotional situation in the laboratory could produce fear and crying in a child.

(a) Outline the psychological explanation of phobias on which this case study is based. [2]

(b) Suggest **one** reason why this case study could be considered unethical. [2]

(c) **(i)** Suggest **one** generalisation that can be made from this case study. [2]

(ii) Suggest **two** reasons why the findings of this case study **cannot** be generalised. [4]

(d) Discuss the advantages and disadvantages of conducting research on phobias in a laboratory. You should include a conclusion in your answer. [5]

Psychology and consumer behaviour

2 Wansink et al. (2005) investigated the effect of food names.

Cathy: 'I think I'll have Traditional Cajun Red Beans with Rice and Grandma's Zucchini Cookies for lunch today. What will you have?'
Julia: 'I think I'll have Grilled Chicken and Chocolate Pudding.'

(a) Identify the **two** conditions of the independent variable (IV) in the study by Wansink et al. (2005). [2]

(b) **(i)** Explain how the conditions of the IV were rotated (counterbalanced). [2]

(ii) Suggest why the conditions of the IV were rotated (counterbalanced). [2]

(c) The participants were asked open-ended questions, including 'Comment on the food'.

Suggest **one** strength and **one** weakness of using open-ended questions in this study. [4]

(d) Discuss the advantages and disadvantages of conducting field experiments to investigate the effect of food names on consumers. [5]

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Psychology and health

3 Munchausen syndrome is an extreme type of factitious disorder. The case study by Aleem and Ajarim (1995) describes a patient with Munchausen syndrome, who first appeared to have an immune deficiency.

(a) Explain what is meant by a 'factitious disorder'. [2]

(b) Identify **two** essential and **two** supporting diagnostic features of Munchausen syndrome, according to Aleem and Ajarim. [4]

(c) **(i)** Describe the result of **one** named physical examination used in this study. [2]

(ii) Suggest **one** advantage of a physical examination over a clinical interview, using an example from this study. [2]

(d) Discuss the advantages and disadvantages of case studies to gather data on factitious disorders like Munchausen syndrome. You should include a conclusion in your answer. [5]

Psychology and organisations

4 Hackman and Oldham (1976) used several different ways to collect data for their job characteristics model:

- the self-report Job Diagnostic Survey (JDS) was administered to groups of employees
- supervisors and the researchers completed the Job Rating Form
- members of management were asked to rate the work performance of each worker
- absence data was obtained from company records.

(a) Explain what is meant by the 'job characteristics model'. [2]

(b) Outline **two** psychological states identified by this model. [4]

(c) **(i)** Suggest **one** strength of using absence data from company records. [2]

(ii) Suggest **one** weakness of using members of management to rate each worker. [2]

(d) Discuss the advantages and disadvantages of using self-reports to gather data on job satisfaction. You should include a conclusion in your answer. [5]

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Section B

You must answer **one** question from this section.

Psychology and abnormality

5 **(a)** Design a study to investigate phobias of horses in boys. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and consumer behaviour

6 **(a)** Design a laboratory experiment to investigate the effect of 'eye magnets' when choosing an item of food on a menu. [10]

(b) Explain the psychological and methodological evidence on which your experiment is based. [8]

Psychology and health

7 **(a)** Design a longitudinal study to investigate whether stress has a negative effect on health. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and organisations

8 **(a)** Design a study to investigate how much time is spent managing group conflict by people at different levels of management. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

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Section C

You must answer **one** question from this section.

Psychology and abnormality

9 *'Exposure and response prevention is always successful in treating obsessive-compulsive and related disorders.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and consumer behaviour

10 *'Determinism: retail store architecture controls how shoppers behave.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and health

11 *'All patients would rather disclose to a computer than a human, in order to be diagnosed.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and organisations

12 *'Job satisfaction can only be measured effectively using closed questions.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

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Surname	StemUp Model Solution
Answer booklet	Write the question number in the left-hand margin at the start of each answer.

Question number

Answers for paper 9990/41

Section A: Psychology and abnormality

1(a) The case study is based on the behavioural explanation of phobias: phobias are learned through classical conditioning (Watson and Rayner, 1920). The loud noise is an unconditioned stimulus (UCS) that naturally produces fear (the unconditioned response). When a neutral stimulus such as a white rat is repeatedly paired with the noise, it becomes a conditioned stimulus (CS) that on its own produces fear, the conditioned response.

1(b) Albert was deliberately caused psychological harm: he was taught to be afraid and the noise made him tremble and cry, and he was never deconditioned, so his fear may have lasted. He also could not give consent himself or withdraw, as he was a baby.

1(c)(i) Phobias can be learned by association. Just as Albert learned to fear a stimulus paired with a loud noise, many people may develop a fear of animals (or other objects) because they were once paired with a frightening experience, and the fear can generalise to similar stimuli.

1(c)(ii) First, Albert was the only participant. One 11-month-old child may have been unusually easy (or hard) to condition, so it is problematic to assume that all children, or adults, learn fears in the same way.

Second, it has been claimed that Albert may have had a mental (neurological)

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	impairment, so he was not a typical child. Also, the study shows how one fear can be learned in a laboratory, but many phobias develop without any frightening experience, so it may not explain all phobias.
1(d)	One advantage of a laboratory is control. A laboratory experiment has an IV (e.g. pairing a rat with a noise) and a DV (fear responses), and extraneous situational variables can be controlled, so cause and effect can be established, as Watson showed that conditioning caused Albert's fear. A second advantage is precision: the stimulus can be presented in exactly the same way each time, and responses such as heart rate or crying can be measured with scientific equipment, so the procedure can be replicated to check reliability. One disadvantage is low ecological validity. Phobias apply to events in the real world, such as meeting a dog in the street, so behaviour in an artificial laboratory may not reflect how fear really develops or is shown. A second disadvantage is that participants (or parents) know they are in a study and may respond to demand characteristics, and isolating one variable is reductionist, as many other factors such as genes or cognitions may contribute to a phobia. Conclusion: laboratory research is best for testing whether a specific mechanism such as conditioning can produce fear, but its findings should be checked against real-life case studies before they are used to explain how phobias develop in everyday life.
	Section A: Psychology and consumer behaviour
2(a)	Condition 1: descriptive, evocative menu names, e.g. Traditional Cajun Red Beans with Rice or Succulent Italian Seafood Filet (Cathy's choices). Condition 2: regular, basic names, e.g. Red Beans with Rice or Seafood Filet (like

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	Julia's Grilled Chicken).
2(b)(i)	On the Tuesday and Friday lunches of each test week, two items had their regular name, two had a descriptive name and two were not offered. Over the following weeks the items and conditions were systematically rotated until every item had appeared in every condition, and the rotation was repeated in weeks four to six.
2(b)(ii)	It was a control for extraneous variables. Unexpected events on particular days, such as bad weather, religious holidays or game days, could change food choice or how many people ate in the cafeteria, so rotating stopped these from confounding the effect of the name.
2(c)	Strength: participants can say in their own words what they thought about the food and why they chose it, giving detailed qualitative data, e.g. a diner may explain that "Grandma's" cookies sounded homemade, which tells researchers more than a sales figure. Weakness: the answers are hard to categorise and may be misinterpreted. A comment such as "I like seafood" could apply to both Succulent Italian Seafood Filet and Seafood Filet, so it does not show whether the name had an effect. Diners may also give socially desirable answers to please the researchers.
2(d)	One advantage is ecological validity. Consumer choices happen in real places such as the cafeteria used by Wansink et al., so a field experiment measures real purchases with real money rather than imagined choices. A second advantage is that people often do not know the menu is being manipulated, so they choose naturally; in this study the questionnaires were only given after the food had been chosen, which reduced demand characteristics. A field experiment still has an IV and DV, so cause and effect can be inferred.

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	One disadvantage is that extraneous variables are harder to control than in a laboratory, e.g. weather, price or which friends a diner eats with may affect choice, which is why rotation of conditions was needed. A second disadvantage is ethical: diners may not know they are in a study, so they cannot give informed consent. Also, isolating one IV (the name) is reductionist, as price, smell and display also affect choice. Conclusion: field experiments are the better choice for this topic because menu names matter only if they change real purchases, provided that careful counterbalancing is used to reduce the loss of control.
	Section A: Psychology and health
3(a)	A factitious disorder is one where a person intentionally produces or fakes physical or psychological symptoms in order to take on the sick role, e.g. injuring themselves or faking illness to get medical attention, rather than for an external reward such as money.
3(b)	Essential features: pathological lying (pseudologia fantastica); recurrent feigned or simulated illness. (Peregrination, travelling from hospital to hospital, is also essential.) Supporting features: multiple hospitalisations; multiple scars, usually abdominal. (Others include knowledge of the medical field and evidence of self-induced physical signs.)
3(c)(i)	A physical examination on her current admission found that she was afebrile with normal pulse and blood pressure, but had multiple scars over the abdominal wall and a tender, hot, indurated area (4 × 5 cm) over the side of the right breast, with two small tender lymph nodes in the right armpit.

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3(c)(ii)	A physical examination gives objective data that the patient cannot fake, whereas in a clinical interview a patient with Munchausen syndrome can simply lie, as pathological lying is an essential feature. For example, whatever history she gave, her multiple abdominal scars were objective evidence of many previous operations.
3(d)	One advantage is detail: a case study investigates one person in depth over time, using interviews, medical records and physical tests, which is needed to uncover deception, as in Aleem and Ajarim's patient. A second advantage is that factitious disorders are rare, so large samples are impossible; unique case studies add knowledge, and if many case studies show the same essential features, such as pathological lying, it becomes possible to generalise. One disadvantage is that each patient is unique (individual differences), so what is found in one patient, e.g. an apparent immune deficiency, may not apply to others with the disorder. A second disadvantage is that no standardised measurements are taken that can be compared across all patients, and much data relies on the patient, who by definition lies, so data may be invalid. Conclusion: case studies are the most practical and appropriate method for a rare and deceptive disorder like Munchausen syndrome, but conclusions should be built from many case studies rather than one.
	Section A: Psychology and organisations
4(a)	It is a model of the conditions under which workers become internally motivated to perform well. Five core job characteristics (skill variety, task identity, task significance, autonomy and feedback) create three critical psychological states,

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	which lead to high motivation, performance and satisfaction, especially in workers with high growth need strength.
4(b)	Experienced meaningfulness of the work: the degree to which the worker feels the job is meaningful, valuable and worthwhile. It comes from skill variety, task identity and task significance. Experienced responsibility for outcomes: the degree to which the worker feels personally accountable for the results of the work they do. It comes from autonomy, e.g. deciding how to do the job.
4(c)(i)	Company records are objective and official: if a worker was absent on a day this is a fact, so the data is not affected by social desirability or the worker's opinion, unlike the self-report JDS.
4(c)(ii)	Managers may not know the worker well or understand the work they actually do, so ratings may be inaccurate. They may also be biased, e.g. rating workers they like more highly, or have a hidden agenda.
4(d)	One advantage is that self-reports ask workers directly, so they can explain how they feel about their job rather than researchers guessing satisfaction from behaviour such as absence. A second advantage is that questionnaires such as the JDS can be given to large numbers easily (Hackman and Oldham studied 658 employees in 62 jobs), are easy to replicate, and closed questions give quantitative data that can be compared between jobs. One disadvantage is social desirability: workers may say they are satisfied because they fear their answers will reach managers, so the data may not be truthful. A second disadvantage is that fixed-choice questions may force workers into

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	answers that do not reflect their real opinion, and leading questions may bias answers, lowering validity.
	Conclusion: self-reports are essential because satisfaction is a feeling that only the worker knows, but they should be anonymous and checked against objective data such as absence records, as Hackman and Oldham did.
	Section B: Psychology and abnormality
5(a)	Aim: to investigate the causes and features of phobias of horses in boys, comparing behavioural, psychoanalytic and genetic explanations.
	Method: an interview study with a matched comparison group. Semi-structured interviews will be held with each boy and, separately, with one parent, in a quiet room at the clinic, lasting about 40 minutes.
	Sample: 20 boys aged 5 to 10 referred to child clinics with a diagnosed specific phobia of horses (using DSM-5 criteria), obtained by volunteer (self-selected) sampling through clinicians, plus 20 boys of the same ages and backgrounds with no phobia, matched on age and whether they live near horses.
	Questions: closed questions, e.g. "Has your son ever been bitten, kicked or frightened by a horse? Yes / No"; "Does anyone in the family have a phobia? Yes / No"; and a fear thermometer from 0 (no fear) to 10 (most afraid) for pictures of a horse at increasing size. Open questions to the parent, e.g. "Describe when you first noticed the fear", "How does your son get on with his father?", and to the boy, "What do you think a horse might do?"
	Data: quantitative data (yes/no answers and fear ratings) will be compared between the groups as percentages and means; qualitative answers will be content analysed into themes such as "frightening event", "family conflict" and "expectation of harm".
	Reliability and validity: the same interviewer and standard questions are used for

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	every family; two researchers code the answers independently and inter-rater reliability is checked.
	Ethics: parents give informed consent and boys give assent in simple words; the boy may stop at any time and the session ends if he becomes distressed; data are confidential and anonymous; all families are debriefed and offered treatment for the phobia.
5(b)	Psychological evidence: the study is based on Freud's (1909) case of little Hans, a five-year-old boy with a phobia of horses. Freud claimed the horse symbolised Hans's father and the fear came from the Oedipus complex, but his data came second-hand from the father, so I interview the boy and the parent directly and ask about family relationships to test this. The behavioural explanation (Watson and Rayner, 1920) says phobias are learned through classical conditioning; Hans himself had seen a horse fall in the street, so I ask whether a frightening event happened. DiNardo et al. (1988) found that many people with dog phobia reported a frightening experience, but so did people without the phobia, and that phobics exaggerated the likely harm; this is why I include a non-phobic comparison group and the question about what a horse might do (a cognitive explanation). Ost (1992) found that blood and injection phobia ran in families, supporting a genetic explanation, so I ask about family history.
	Methodological evidence: interviews suit children, who may not be able to read a questionnaire, and a semi-structured format allows follow-up questions. Closed questions and fear ratings give quantitative data that is easy to compare between groups, while open questions give rich qualitative data, as in a case study. A matched comparison group controls participant variables. Using several boys rather than one (as Freud did) improves generalisability. Standardised questions and inter-rater checks improve reliability, and protection from harm and assent are needed because the participants are young and the topic is frightening.

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Section B: Psychology and consumer behaviour

6(a) Aim: to investigate whether an eye magnet increases attention to, and choice of, a target menu item.

Design: a laboratory experiment with a repeated measures design. IV: whether the target dish has an eye magnet (a graphic box around it) or no eye magnet. DVs: eye-tracking measures (time to first look at the target, number of fixations and total gaze time on it) and whether the participant chooses the target dish.

Materials: a three-panel, two-fold menu shown on a screen fitted with an eye tracker. Two versions are made; they are identical (same dishes, prices, font, colours and position) except for the box around the target.

Controls: only one type of eye magnet (a box) is used so its effect is isolated; the target is placed in the same position in both versions; lighting and seating distance are the same; and different target dishes of similar price are used in each condition so participants do not see the same menu twice.

Sample: 40 adults aged 18 to 60 recruited by opportunity sampling from a university and local community, who normally eat in restaurants and have normal or corrected vision.

Procedure: participants are told to imagine they are in a restaurant and to read the menu and say what they would order. Half see the eye-magnet menu first and half the plain menu first (counterbalancing), with a filler task in between.

Data and analysis: quantitative; mean time to first fixation and gaze time are compared, and the percentage choosing the target in each condition.

Ethics: informed consent is obtained, but the specific aim is kept back to avoid demand characteristics, so participants are fully debriefed; they can withdraw and data are anonymous.

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6(b)	Psychological evidence: Pavesic (2005) describes the typical pattern of eye movement over a three-panel, two-fold menu, but says the pattern is not fixed and can be altered by eye magnets, small graphic techniques that attract the eye and the guest's attention, such as boxes around items, different type fonts, colour and borders. My IV uses a box because Pavesic says this is one of the best examples. Pavesic also lists common menu mistakes, such as too many items or poor layout, which I avoid by keeping the menu simple so that only the box varies. Choosing a three-panel menu matches the format Pavesic describes, so the results can be compared with his claims about gaze motion. Methodological evidence: a laboratory experiment allows tight control, so any difference in attention can be attributed to the eye magnet. An eye tracker gives objective, precise quantitative data rather than relying on what diners say they looked at. Repeated measures removes participant variables such as reading habits, and counterbalancing reduces order effects. Using different target dishes stops practice or boredom effects. However, the lab is artificial, as diners are not hungry or paying, so ecological validity is lower; the choice measure partly addresses this by checking whether attention actually changes the decision.
	Section B: Psychology and health
7(a)	Aim: to investigate whether stress has a negative effect on health over time. Method: a longitudinal (prospective) study of the same participants for five years, combining questionnaires and physiological measures. Sample: 300 adult employees aged 25 to 55 from several large organisations, recruited by volunteer sampling through workplace adverts, all healthy at the start (checked by a health questionnaire). Measures every six months: (1) stress: the Social Readjustment Rating Scale, where participants tick life events from the last six months and a total life change

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	unit score is calculated, plus a 1 to 10 rating of work stress; (2) a saliva sample to measure cortisol, taken at the same time of day; (3) health: blood pressure measured by a nurse with a sphygmomanometer, number of days ill, and illnesses recorded by their doctor (with permission). Analysis: quantitative data; correlations between stress scores and later health outcomes, and comparison of health in the highest and lowest stress groups over time. Controls: the same standardised measures and times are used every time; information on smoking, diet and exercise is collected so these can be taken into account. Ethics: informed consent including for medical records, the right to withdraw at any time, confidentiality and anonymity, and anyone found with high blood pressure is advised to see their doctor; full debrief at the end.
7(b)	Psychological evidence: Selye's (1936) General Adaptation Syndrome says the body responds to stress in three stages: alarm, resistance and exhaustion. In the exhaustion stage the body cannot stay in a heightened state, so systems break down, leading to high blood pressure, stomach ulcers, heart attack or stroke. Because exhaustion takes time to develop, a longitudinal study is needed, and blood pressure and illness are measured as the effects Selye predicts. Cortisol is measured because it is released by the adrenal cortex during prolonged stress. Holmes and Rahe (1967) developed the SRRS and found that people with high life change scores were more likely to become ill, so I use their scale. Chandola et al. (2008) followed civil servants for many years and found work stress was linked to heart disease, partly through poor diet and lack of exercise, so I record these health behaviours. Methodological evidence: a longitudinal design follows the same people, so changes over time can be tracked and participant variables are controlled; stress is

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measured before illness, so the direction of the link is clearer than in a snapshot study. Using both self-report and physiological measures gives triangulation: cortisol and blood pressure are objective, while the SRRS shows how much stress was experienced. A large, varied sample improves generalisability and allows for attrition, which is a common problem in longitudinal studies. The data are correlational, so cause and effect cannot be certain.

Section B: Psychology and organisations

8(a) Aim: to investigate how much working time is spent managing group conflict by managers at different levels.

Design: a quasi-experiment with independent measures. IV: level of management (senior, middle and first-line supervisor). DV: percentage of working time spent managing conflict.

Sample: 60 managers, 20 at each level, from six organisations of different types (e.g. a bank, a hospital, a factory), recruited by stratified sampling so each level and organisation is equally represented.

Method: (1) a structured diary for two weeks: at the end of each hour the manager records the minutes spent dealing with conflict, e.g. disagreements between staff, complaints about colleagues, disputes between departments, and ticks which conflict-handling mode they used (competing, collaborating, compromising, avoiding or accommodating). (2) To check validity, a trained observer shadows a sub-sample of 15 managers for two days, using event sampling with the same conflict categories.

Data analysis: quantitative; mean percentage of time spent on conflict for each level is calculated and shown in a bar chart; the most used conflict-handling mode for each level is identified.

Reliability: a clear operational definition of conflict and the same diary sheet is

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	used by all; observer records are compared with diaries for agreement.
	Ethics: informed consent from managers and organisations; names of staff are never recorded; confidentiality; right to withdraw; debrief with a summary of results.
8(b)	Psychological evidence: Thomas (1976) described the importance of conflict in organisations and reported survey evidence (Thomas and Schmidt, 1976) that managers spend about a fifth of their time dealing with conflict, with the amount differing by level of management. My study tests whether this is still true.
	Thomas also described five conflict-handling modes based on two dimensions, assertiveness (satisfying one's own concerns) and cooperativeness (satisfying the other party's concerns): competing, collaborating, compromising, avoiding and accommodating. I include these in the diary because the time spent may depend on the mode, e.g. avoiding may take little time now but more later. Conflict can be between individuals in a group or between groups, so my definition includes both.
	Methodological evidence: a diary records behaviour soon after it happens, reducing memory errors compared with a single questionnaire, and gives quantitative data for comparison. However, diaries are self-report and managers may under-report conflict to look competent (social desirability), so observation of a sub-sample allows triangulation. Level of management is a naturally occurring IV, so this is a quasi-experiment and cause and effect cannot be certain. Stratified sampling across different organisations improves generalisability, and confidentiality is especially important as workplace conflict is sensitive.
	Section C: Psychology and abnormality
9	Exposure and response prevention (ERP) is a behavioural therapy for OCD. The

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patient builds a fear hierarchy and is gradually exposed to situations that trigger obsessions, while being prevented from carrying out the compulsion, so they learn that anxiety falls without the ritual.

There is evidence that ERP is successful. Lehmkuhl et al. (2008) used ERP with Jason, a 12-year-old boy with OCD and autism. Over a series of sessions, which included psychoeducation and a hierarchy of exposures, his symptoms measured on the CY-BOCS fell markedly. This shows that ERP can work even for a child with a complex additional condition, and that a "basic" treatment can be adapted to an individual's needs, e.g. by taking account of his autism. If ERP works for a child, it is likely to work for adults who can understand the reasons for it. ERP is also gradual, facing fears step by step, so unlike flooding the patient is not overwhelmed, which should make it acceptable to most people.

However, "always" is too strong. Lehmkuhl et al.'s study is a case study of one boy, so it cannot be generalised: Jason was unique, with autism as well as OCD, and other patients may not respond. ERP causes high anxiety, so some patients refuse it or drop out, and it cannot succeed if it is not completed. Some patients lack insight, especially in related disorders such as hoarding disorder, and do not see their behaviour as a problem, so they will not resist the compulsion. ERP is also behavioural, so it treats the symptoms but not underlying thoughts; cognitive therapy, or drugs such as SSRIs, may be more appropriate for some people, and many patients need a combination. No single therapy works for everyone because of individual differences.

Conclusion: I disagree with the statement. ERP is an effective, well-supported treatment that helps many people with OCD, as Jason's case shows, but evidence from one case cannot prove it works for all, and drop out and lack of insight mean it is not always successful, so it should be offered alongside alternatives.

Section C: Psychology and consumer behaviour

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10	Determinism is the view that behaviour is controlled by factors outside a person's control. Architectural determinism claims that the built environment, such as store layout, controls how shoppers behave. There is evidence that architecture influences shoppers. Vrechopoulos et al. (2004) compared grid, freeform and racetrack layouts in a virtual store and found that the layout affected how easy shoppers found the store to use, how they moved around it and how long they spent. Turley and Milliman (2000) reviewed many studies of store atmospherics and concluded that exterior design, interior layout, lighting, music and smell all influence purchasing, time spent in the store and approach behaviour. Finlay et al. (2006) showed participants videos of casinos with different designs and found that the environment affected their emotions and their intentions to gamble. This supports the statement, and retailers use these findings, e.g. placing essentials at the back so shoppers pass other products. However, "controls" is too strong. People have free will: they choose which store to visit and can walk out of one they dislike, and many shoppers go in with a list and buy only what they planned. Factors associated with the product, such as price, quality and brand, are often more important in the final decision; an attractive store may attract people, but it does not make them buy. Friedman's casino design principles focus on the gaming machines rather than the atmosphere, which suggests the product itself drives behaviour. Individual differences also matter: a layout that relaxes one shopper may frustrate another. Much research uses virtual stores or videos, so it lacks ecological validity and may overstate the effect of architecture. Finally, the effects are probabilistic, showing small average changes, not control of every individual. Conclusion: I partly agree. Store architecture clearly influences how shoppers move and feel, so it is a powerful tool for retailers, but it does not control behaviour: it interacts with free choice, product factors and individual differences, so soft

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determinism is a more accurate description.

Section C: Psychology and health

11 Disclosure is how much information a patient reveals to a practitioner, which affects whether a correct diagnosis can be made.

There is evidence that patients disclose more to a computer. Robinson and West (1992) studied patients at a genitourinary (sexually transmitted infection) clinic who gave information by computer interview, written questionnaire or face-to-face interview with a doctor. Patients reported more symptoms and more previous visits to the clinic to the computer than in the other conditions. This suggests that people feel a computer will not judge them, so for embarrassing problems they prefer it. A computer is also quick, available at any time and does not use the time of a busy doctor, and it asks every question in a standard way, so it can be good at diagnosing simple or common illnesses.

However, the word "all" is not supported. Robinson and West studied only one type of clinic where the topic was sensitive; for non-embarrassing problems such as a sports injury people may be happy to talk to a human. Individual differences matter: older people or those unfamiliar with technology may find a computer difficult. Disclosing more is also not the same as preferring the computer to diagnose: a human practitioner can deal with ambiguous symptoms and rare illnesses that a computer is not programmed for, and patients may not trust a treatment prescribed by a machine. A human can be patient-centred, showing empathy and reassurance; Savage and Armstrong (1990) found that patients were more satisfied when the doctor used a directing style, showing that many patients value what a doctor says to them, not just giving information. Also, the study only measured how much was disclosed, not whether patients would rather use the computer.

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Conclusion: I disagree. Some patients, especially with sensitive problems, disclose more to a computer, so computers are useful for collecting information, but not all patients prefer them, and most still want a human practitioner to make and explain the diagnosis, so a combination is best.

Section C: Psychology and organisations

12 Closed questions give fixed answer choices, such as yes / no or a rating scale, whereas open questions allow workers to answer in their own words.

There is evidence for closed questions. The Job Descriptive Index (Smith et al., 1969) asks workers to answer yes, no or ? to adjectives about five aspects of their job (work, pay, promotion, supervision and co-workers). The Minnesota Satisfaction Questionnaire (Weiss et al., 1967) uses a five-point scale from very dissatisfied to very satisfied on aspects of the job. These give quantitative scores, so a worker can be placed in a category (high, average or low satisfaction) and comparisons can be made between workers, departments or over time. Closed questions are easy and quick to answer, so large numbers of workers can be surveyed, and they are easy to score objectively and replicate, making them reliable.

However, "only" is too strong. Closed questions may not fit a worker's real feelings: they may want to answer "it depends", so they are forced into an answer that lowers validity. A five- or seven-point scale has a mid-point, so some workers choose it for every item without thinking. Closed questions produce numbers but not understanding of why a worker is dissatisfied, which managers need to make changes. Open methods give this detail: Herzberg et al. (1959) used interviews with engineers and accountants about times they felt good or bad about their job and from this developed the two-factor theory of motivators and hygiene factors, a key theory of job satisfaction that a closed questionnaire could not have discovered. Walton's (1974) quality of work life approach also considers broad

Question number

factors, such as the social relevance of work, that a short rating scale may miss. Both open and closed self-reports suffer from social desirability, so objective measures such as absence or labour turnover can also measure dissatisfaction. Conclusion: I disagree. Closed questions are effective for measuring and comparing levels of satisfaction, but open questions are needed to understand its causes, so the most effective measurement uses both.

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PSYCHOLOGY **9990/42**

Paper 4 Specialist Options: Application **October/November 2020**

1 hour 30 minutes

7713882582

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **four** questions in total:
  - Answer questions from **two** options.
    - Section A: answer **two** questions.
    - Section B: answer **one** question.
    - Section C: answer **one** question.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **8** pages. Blank pages are indicated.

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Section A

You must answer **two** questions from this section.
Answer all the parts for the two questions you choose.

Psychology and abnormality

1 Miller (2010) proposed impulse control therapy which he developed from his feeling-state theory of impulse control disorders. This therapy uses what Miller calls the impulse control disorder protocol (ICDP), a procedure which uses a modified form of eye movement desensitisation and reprocessing (EMDR).

(a) Explain what is meant by eye movement desensitisation and reprocessing (EMDR). [2]

(b) Outline the procedure used in impulse control therapy, including reference to EMDR. [4]

(c) **(i)** Suggest **one** similarity between impulse control therapy and imaginal desensitisation. [2]

(ii) Suggest **one** difference between impulse control therapy and imaginal desensitisation. [2]

(d) Discuss the strengths and weaknesses of using self-report data from people with addictions. You should include a conclusion in your answer. [5]

Psychology and consumer behaviour

2 The success of the disrupt-then-reframe (DTR) technique (Kardes et al., 2007)

Experiment 1 shows that the DTR technique increases retail sales in a supermarket setting.
Experiment 2 shows that the DTR technique increases the willingness to pay to join a student interest group.
Experiment 3 shows that the DTR technique increases student support for a tuition fee increase.

(a) Explain what is meant by the 'disrupt-then-reframe' technique. [2]

(b) **(i)** Explain how an independent measures design was used in Experiment 1. [2]

(ii) Suggest why this experimental design was used, rather than **one** other experimental design. [2]

(c) Suggest **two** advantages of conducting field experiments, using examples from this study. [4]

(d) Discuss the ethics of using the disrupt-then-reframe technique to sell a product. You should consider both sides of the argument and include a conclusion. [5]

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Psychology and health

3 Fox et al. (1987) used token economy with miners

The yearly costs, adjusted for hours worked and inflation, resulting from accidents and injuries at the Navajo mine

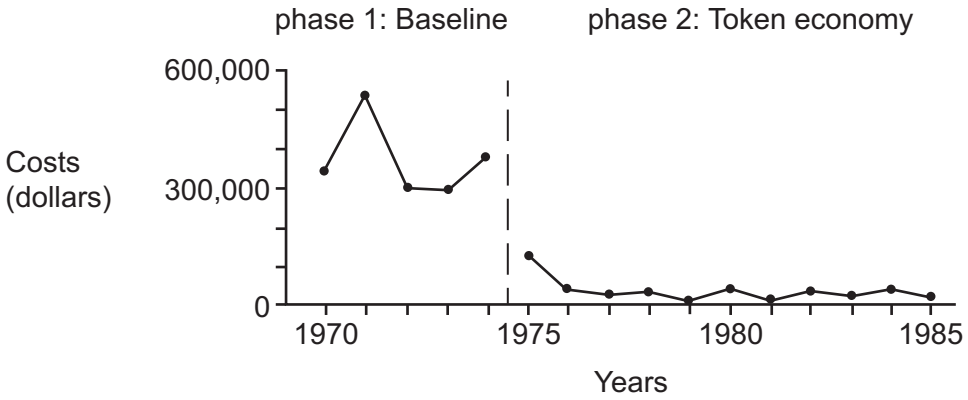


Fig. 3.1

(a) Give **two** conclusions from Fig. 3.1. [2]

(b) Outline **two** measures of safety behaviour used to gather data in the study by Fox et al. (1987). [4]

(c) Explain **two** reasons why the decrease in costs between phase 1 and phase 2 may **not** be due to the token economy. [4]

(d) Discuss whether the findings of this study can be generalised. You should consider both sides of the argument and include a conclusion. [5]

Psychology and organisations

4 Fiedler (1967) proposed a contingency theory.

Leader member relations:	good or poor
Task structure:	high or low
Position power:	strong or weak

(a) Explain what is meant by a 'contingency theory' of leadership. [2]

(b) **(i)** Explain how Fiedler used the Least-Preferred Co-worker (LPC) questionnaire. [2]

(ii) Suggest **one** disadvantage of using this questionnaire with workers. [2]

(c) Explain how **one** alternative theory of leadership considers individual differences between workers. [4]

(d) Discuss the usefulness of theories of leadership to the management of an organisation. You should consider both sides of the argument and include a conclusion. [5]

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Section B

You must answer **one** question from this section.

Psychology and abnormality

5 **(a)** Design a study using an observation to investigate the characteristics of addiction in people with kleptomania. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and consumer behaviour

6 **(a)** Design a study to investigate the effect of musical style on spending in different types of restaurant. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and health

7 **(a)** Design a study using an interview to investigate the causes of stress at work in nurses. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and organisations

8 **(a)** Design a study to investigate which type of 'need for achievement' is **most** likely to motivate workers. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

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Section C

You must answer **one** question from this section.

Psychology and abnormality

9 *'Medical techniques, such as drugs, can treat all patients with depression effectively.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and consumer behaviour

10 *'Determinism: Retail ambience may affect shoppers' emotional states, but does not determine their reason to shop.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and health

11 *'Physiological measures of stress are much more useful than psychological measures.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and organisations

12 *'Situational leadership is irrelevant if the individual leader is a universalist 'great man or woman'.*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

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Surname	StemUp Model Solution
Answer booklet	Write the question number in the left-hand margin at the start of each answer.

Question number

Answers for paper 9990/42

Section A: Psychology and abnormality

1(a) EMDR is a therapy, originally for post-traumatic stress disorder, in which the client identifies a traumatic memory and the negative feelings and beliefs linked to it, and then focuses on these while following the therapist's finger with sets of side-to-side eye movements. This helps process the memory and replace the negative feelings with positive beliefs.

1(b) The therapist first obtains a history of the compulsive behaviour, its frequency and context. The client identifies the aspect of the behaviour with the most emotional intensity and the specific positive feeling linked to it (the feeling-state), rating it on the Positive Feeling Scale (PFS), and locates the physical sensations it creates. The client then holds together an image of performing the behaviour, the positive feeling and the sensations, while sets of eye movements (EMDR) are performed, each set focusing on whatever material came up in the last, until the PFS rating falls to zero. Homework is set, and in later sessions the feeling-state is re-evaluated and the steps repeated if needed.

1(c)(i) Both are treatments for impulse control disorders such as gambling, and both require the patient to imagine the situation linked to the behaviour (e.g. imagining gambling) while the therapist guides them.

1(c)(ii) Impulse control therapy uses sets of eye movements while the client focuses on

Question number	
	the feeling-state, whereas imaginal desensitisation uses progressive muscle relaxation while the client imagines the situation.
1(d)	One strength is that self-reports ask people with addictions directly, so they can describe their urges and feelings, e.g. the positive feeling rated on Miller's PFS, which cannot be observed by researchers. A second strength is that questionnaires can be given to large numbers of people easily and replicated, and rating scales give quantitative data so that change can be measured before and after treatment. One weakness is social desirability: people with addictions such as gambling may under-report their behaviour because they are ashamed, or deny a problem, so the data may not be truthful. A second weakness is that closed questions may force people into answers that do not reflect their real experience, and leading questions from a therapist who wants the treatment to work could bias answers. Conclusion: self-reports are necessary because addiction involves private urges, but their validity is limited, so they should be checked against objective evidence such as money spent or reports from family members.
	Section A: Psychology and consumer behaviour
2(a)	The DTR technique first confuses the consumer with a slightly odd, disruptive message and then immediately reduces the confusion by reframing the message positively, e.g. "The price is 300 pennies... that's $3. It's a bargain." The confused consumer accepts the reframe, making them more likely to comply.
2(b)(i)	Different shoppers were in each condition: the confederate at the sales stand either used the DTR script ("300 pennies... that's $3, it's a bargain") or the

Question number	
	reframe-only control script ("$3, it's a bargain"), so each participant experienced only one condition.
2(b)(ii)	A repeated measures design would mean the same shopper hearing both sales scripts; they would become suspicious after the first pitch, and there would be carry-over effects (e.g. having already bought or refused the candy), so the results of the second condition would not be valid.
2(c)	First, high ecological validity: the setting was natural, as the study was conducted in a real supermarket with a sales stand, so the findings apply to real retail sales. Second, participants behave naturally because they do not know they are in a study: the confederates simply introduced themselves at the stand, offered candy at a special rate and followed the sales script, so there were no demand characteristics. (Also, the sample was more varied than a student sample: 147 shoppers, 43 male and 104 female, with a mean age of 46.)
2(d)	In favour of it being ethical: salespeople always try to persuade, and DTR is just one technique among many; it is no worse than other psychological tricks such as special-offer pricing. Also, consumers are free to walk away if they do not want the product, and the price in DTR is the real price stated honestly, so no one is forced or lied to about what they pay. Against: DTR works by deliberately confusing people so that they think less carefully, which is manipulation and a form of deception, as the consumer does not know a technique is being used on them. Also, in real life, unlike a psychological study, there is no ethical committee, consent or debrief to protect consumers, so vulnerable people, e.g. the elderly or those under time pressure, may buy things they do not want.

Question number	
	Conclusion: DTR is ethically acceptable for low-cost products where consumers can easily refuse, as the harm is small, but it becomes unethical if used to pressure vulnerable people into expensive purchases, so its use should be limited by sales codes of practice.
	Section A: Psychology and health
3(a)	Costs from accidents and injuries at the Navajo mine were high (about $300,000 to $550,000 a year) and variable during the baseline phase. After the token economy was introduced in 1975, costs fell sharply to well under $100,000 a year and stayed low for the next ten years.
3(b)	Frequency rate: the number of job-related injuries that caused a worker to lose one or more days from work, expressed per 1 000 000 person-hours worked; an index of how often important injuries occur. Severity rate: the total number of days lost from work because of injuries, per 1 000 000 person-hours; an index of how serious the injuries were. (Direct costs of accidents, e.g. compensation, medical care and equipment repair, were also recorded.)
3(c)	First, the tokens may have caused under-reporting. Workers lost tokens if they had an injury, so they may have hidden minor accidents and injuries rather than reported them, so recorded costs fell without safety really improving. Second, natural variability: costs varied a lot during the baseline (e.g. a peak in 1971), so some fall may have happened anyway. Other changes over time, such as new safety equipment or a downward trend that had already begun (as at the other mine, Shirley Basin), could have reduced costs independently of the tokens.

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3(d)	The findings can be generalised because the principle of positive reinforcement, rewarding a behaviour with tokens to make it more likely, is a general law of learning that applies to people in many settings. Also, the study took place in two real mines over many years with large samples of workers (hundreds at each mine), not in an artificial laboratory, so it has high ecological validity. If it works in dangerous mines, it should work in less dangerous workplaces. However, mining is only one type of occupation, and the workers were all in one country (the USA), so the tokens may not motivate workers in other cultures or jobs where safety is already a high priority. Also, the study was carried out in the 1970s and 1980s, so it may not generalise to modern workplaces with different safety laws, technology and attitudes. Conclusion: the general principle that token economies can improve safety behaviour can be generalised, but the size of the effect found at the Navajo mine should be tested in other occupations and cultures before being assumed.
	Section A: Psychology and organisations
4(a)	A contingency theory says that the effectiveness of a leader depends on (is contingent on) the situation, not just the leader. For Fiedler, effectiveness depends on the match between the leader's style (task- or relationship-oriented) and how favourable the situation is: leader-member relations, task structure and position power.
4(b)(i)	Leaders were asked to think of the person they had least liked working with and rate them on 16 bipolar scales, e.g. Unfriendly 1 2 3 4 5 6 7 8 Friendly. A high total LPC score means the leader is relationship-oriented; a low score means the leader is task-oriented.

Question number	
4(b)(ii)	If the least-preferred co-worker, or other workers, found out who had been chosen, it could change attitudes towards that worker and possibly lead to bullying, harming relationships at work.
4(c)	Hersey and Blanchard's situational leadership theory says that no single style suits every situation; the leader must adapt their style to the readiness (maturity) of the followers, which is an individual difference between workers. Workers with low ability and low willingness need a telling style (high task, low relationship), giving clear directions. Workers who are willing but lack ability need a selling style (high task, high relationship), explaining decisions. Workers who are able but unwilling or insecure need a participating style (low task, high relationship), sharing decisions. Workers who are both able and willing need a delegating style (low task, low relationship), letting them make decisions. So the leader treats each worker according to their own level of readiness.
4(d)	Theories are useful because if an organisation knows which leadership style suits its situation (e.g. from Fiedler's theory), it can appoint the right person as leader for that job. Also, a manager who understands theories such as situational leadership can adapt their style to each worker, which can improve cohesion, job satisfaction and productivity. However, theories are less useful if they have not been shown to work in practice, and not all theories apply to every organisation; e.g. a leader who tries to change to a style that is not natural to them may perform badly. Also, theories simplify: putting workers into four readiness levels is neat, but real workers do not fit one category, and imposing the wrong style could lead to dissatisfaction.

Question number	
	Conclusion: leadership theories are useful to management as a guide for selecting and training leaders, but they should be applied flexibly, taking account of the particular workers, rather than followed rigidly.
	Section B: Psychology and abnormality
5(a)	Aim: to investigate whether people with kleptomania show the characteristics of addiction.
	Method: an overt, non-participant, structured observation in a controlled setting.
	Setting: a mock shop room at a treatment clinic containing low-value items (e.g. pens, sweets, keyrings) on open shelves, observed through one-way glass and recorded on video. Participants are told they will be observed while they browse and pay for one item, and no item can actually be taken out of the clinic.
	Sample: 15 adult patients diagnosed with kleptomania, recruited by volunteer sampling through clinicians, and 15 matched controls without the disorder, for comparison.
	Behavioural categories, based on characteristics of addiction: salience (time spent looking at or handling items, talking about taking things); tension before the act (fidgeting, pacing, touching face, shallow breathing); mood modification or relief (smiling, relaxing, sighing after handling or pocketing an item); conflict (hesitation, picking up then putting back, saying "I shouldn't"); and after the session a short interview about withdrawal and relapse.
	Sampling: time sampling, recording which categories occur in each 30-second interval of a 15-minute session; each participant is observed on three sessions a week apart to look for tolerance (more items handled over time).
	Observers: two trained observers code the videos independently; inter-rater reliability is calculated and should be above 0.8.
	Data: quantitative tallies for each category, compared between the two groups;

Question number

qualitative notes on what participants say.

Ethics: informed consent, right to withdraw, confidentiality; a therapist is present and sessions stop if a participant becomes distressed; full debrief, and the items are clinic property so no real theft occurs.

5(b) Psychological evidence: kleptomania is an impulse control disorder involving recurrent failure to resist impulses to steal objects that are not needed for personal use or for their monetary value, with increasing tension before the theft and pleasure or relief when it is committed (DSM criteria, as discussed by Burton et al., 2012, for impulse control disorders such as pyromania). This is why I chose low-value items and why tension before and relief after are behavioural categories. Griffiths describes the characteristics of all addictions, including non-substance addictions: salience, mood modification (euphoria), tolerance, withdrawal, conflict and relapse. My categories operationalise these so that I can test whether kleptomania fits the addiction model; tolerance is assessed over repeated sessions, and withdrawal and relapse, which cannot be seen in a short session, are asked about in the follow-up interview.

Methodological evidence: an observation records what people actually do, rather than what they say, which is important because people with kleptomania may feel ashamed and give socially desirable answers. A controlled setting is needed because observing real theft in shops would be unethical and illegal and would be difficult to record; the trade-off is lower ecological validity. A structured observation with clear behavioural categories and time sampling gives quantitative data that can be compared between groups. Two observers and video recording allow inter-rater reliability to be checked. The control group shows which behaviours are specific to kleptomania. Overt observation with consent avoids the ethical problems of deception, though participants may change their behaviour because they know they are watched.

Question number

Section B: Psychology and consumer behaviour

6(a) Aim: to investigate the effect of musical style on spending in different types of restaurant.

Design: a field experiment with two IVs. IV1: musical style (classical, pop or no music). IV2: type of restaurant (fast-food, family pub restaurant and fine-dining restaurant). DV: amount spent per person, taken from till receipts, split into starter, main, dessert, drinks and coffee.

Sample: three restaurants of each type in the same city (nine in total). All diners eating in the evening during the study period are participants (an opportunity sample), excluding children's menus.

Procedure: each restaurant plays each condition for two weeks, in a counterbalanced order, on the same evenings (Tuesday to Saturday, 6 to 10 pm). Music is played from the same playlist at the same volume.

Controls: menu and prices stay the same; temperature, lighting and staffing levels are kept constant; there are no special offers during the study; the number of diners per table is recorded so spending per head can be calculated.

Data and analysis: quantitative; mean spend per head for each music style in each restaurant type, shown in a table and bar chart, to see whether the best music style differs by type of restaurant.

Ethics: diners are not told about the study to avoid demand characteristics, but no individual data is collected; only anonymous receipt totals are used and permission is given by restaurant owners. A notice could be displayed afterwards explaining the research.

6(b) Psychological evidence: North et al. (2003) played classical music, pop music or no music in a restaurant over several weeks and measured the amount diners spent on

Question number

food and drink. They found that spending per head was highest with classical music. They explained this through priming and "fit": classical music creates an upmarket, sophisticated atmosphere, so diners feel they should spend more. North et al. used only one type of restaurant, so my design adds restaurant type as a second IV: classical music may increase spending in a fine-dining restaurant where it fits the setting, but may not in a fast-food restaurant where pop fits better. I use the same three music conditions and the same DV so the results can be compared with theirs.

Methodological evidence: a field experiment has high ecological validity because real diners spend real money, while the IV is still manipulated, so cause and effect can be inferred. Using till receipts gives objective quantitative data that is not affected by memory or social desirability. Counterbalancing the order of conditions controls for changes over time such as weather or pay-day, and controlling menu, prices and volume reduces extraneous variables, although control is weaker than in a laboratory. Using several restaurants of each type improves generalisability. Diners do not give consent, but because spending data is anonymous and the music is a normal part of dining, the risk of harm is very low.

Section B: Psychology and health

7(a) Aim: to investigate the causes of stress at work in nurses.

Method: semi-structured, face-to-face interviews of about 45 minutes in a private room at the hospital, at a time chosen by the nurse, audio-recorded with permission.

Sample: 40 qualified nurses from four wards (accident and emergency, intensive care, a general ward and a children's ward), selected by stratified random sampling from staff lists so that each ward, gender and level of experience is represented.

Questions: closed questions, e.g. "On a scale of 1 (not at all) to 10 (extremely),

Question number

how stressful is your job?", "How many hours do you usually work per week?", "Do you work night shifts? Yes / No"; and open questions, e.g. "Describe a recent situation at work that you found stressful", "How much control do you have over how you do your work?", "How do workload and staffing levels affect you?", plus follow-up probes.

Analysis: quantitative ratings and hours are compared between wards (means, bar chart); qualitative answers are content analysed into themes such as workload, lack of control, shift work, dealing with death, and conflict with colleagues, and the frequency of each theme is counted.

Reliability and validity: the same interviewer uses the same interview schedule; two researchers code the transcripts independently to check inter-rater reliability; questions are not leading.

Ethics: informed consent; managers will not see individual answers; anonymity and confidentiality; right to withdraw; nurses who are distressed are given details of the staff support service; debrief.

7(b) Psychological evidence: Chandola et al. (2008) studied UK civil servants (the Whitehall II study) over many years, using questionnaires and clinical examinations, and found that work stress was associated with heart disease, partly because stressed workers ate a poorer diet and exercised less, and that the link was strongest in workers under 50. This shows work is an important cause of stress, so I ask nurses about their hours and how stress affects their health behaviour, and stratify by experience, which is related to age. Work stress research identifies causes such as high workload, low control over the job, shift work and poor relationships, so my questions ask about these. Nursing involves emotional demands such as dealing with death, which is why I compare wards with different demands.

Methodological evidence: an interview allows nurses to explain causes in their own

Question number

words, giving rich qualitative data about why they are stressed, which a questionnaire might miss. A semi-structured format combines standard questions, which make answers comparable and the study replicable, with follow-up probes. Closed rating questions give quantitative data for comparison between wards. Stratified sampling makes the sample representative of different wards and experience levels. Interviews may suffer from social desirability or interviewer effects, so confidentiality is stressed and a neutral interviewer used. Ethics are important because talking about stress may be upsetting.

Section B: Psychology and organisations

8(a) Aim: to investigate which type of need (achievement, affiliation or power) is most likely to motivate workers.

Design: a correlational study using questionnaires and supervisor ratings, with a field experiment element.

Sample: 120 workers from three organisations (a sales company, a hospital and a factory), selected by random sampling from staff lists.

Part 1 (questionnaire): each worker completes a questionnaire with 30 statements, 10 for each need, rated from 1 (strongly disagree) to 5 (strongly agree), e.g. need for achievement: "I like to take on challenging tasks and be responsible for the result"; need for affiliation: "It is important to me that my colleagues like me"; need for power: "I like to influence what other people do". This gives a score for each need, and each worker's dominant need is identified.

Part 2 (motivation): motivation is measured by a supervisor rating from 1 to 10 of effort, plus objective performance (e.g. sales figures) and absence records over three months.

Part 3: workers are offered a choice of incentive for the next month: a challenging target with feedback (achievement), a team social event (affiliation) or a chance

Question number

to lead a project (power), and the change in performance is measured.

Analysis: correlations between each need score and motivation; comparison of mean motivation for workers with each dominant need.

Ethics: informed consent, confidentiality (managers do not see individual scores), right to withdraw, debrief.

8(b) Psychological evidence: McClelland (1965) proposed that people have three learned needs: need for achievement (nAch), the need to get a job done, master a task and be successful; need for affiliation, the need to be liked and accepted by others; and need for power, the need to influence and be in control of others. People differ in which need is dominant, so I measure all three for each worker and identify the dominant one. McClelland suggested that people high in nAch prefer moderately challenging tasks with personal responsibility and clear feedback, so my achievement incentive includes a challenging target with feedback. Atkinson added that some people are driven by a need to avoid failure rather than to achieve, which could be a further category. McClelland measured needs with the Thematic Apperception Test, but that is time consuming and subjective to score, so I use a rating-scale questionnaire instead.

Methodological evidence: a questionnaire is quick to give to a large sample, and rating scales give quantitative scores that can be correlated with motivation. However, self-reports may be affected by social desirability, so motivation is measured separately by supervisor ratings and objective performance and absence data, giving triangulation. Correlation cannot show cause and effect, so Part 3 adds an incentive manipulation to test which need actually changes performance. Random sampling from three different organisations improves representativeness and generalisability. Confidentiality protects workers from managers misusing their scores.

Question number

Section C: Psychology and abnormality

9 Medical (biological) treatments for depression include antidepressant drugs such as MAOIs, which stop the enzyme monoamine oxidase breaking down serotonin and noradrenaline, and SSRIs such as fluoxetine, which block the reuptake of serotonin so more remains in the synapse.

There is evidence that drugs are effective. Kahn et al. (1986) found that drug treatment (imipramine, and to a lesser extent the benzodiazepine chlordiazepoxide) was more effective than a placebo for patients with mixed anxiety and depression. Drugs relieve symptoms such as low mood, so the patient can function at work and home. They are quick and easy: the patient simply swallows a pill and does not need relaxation, cognitive exercises or weekly therapy sessions, which suits patients who are too depressed or unmotivated to engage with a talking therapy. If depression is caused by a biochemical imbalance, drugs treat the cause.

However, "all" is too strong. Drugs only work if the cause is biochemical; if depression is caused by faulty thinking or life events, drugs do not cure it but just make the symptoms easier to live with, and symptoms often return when the drugs are stopped. Some patients do not respond to several drugs at all (treatment-resistant depression). Drugs have side effects such as nausea, weight gain or sleep problems, and MAOIs require dietary restrictions, so some patients stop taking them, and some drugs can lead to dependence. Drugs may be costly over a long time. Psychological alternatives work for many patients: Beck's cognitive therapy challenges the negative cognitive triad, and Ellis's rational emotive behaviour therapy disputes irrational beliefs, giving the patient skills that last after therapy ends. Explaining depression only in terms of brain chemistry is reductionist and ignores cognitive and social causes.

Conclusion: I disagree. Drugs are effective for many patients, especially those with severe symptoms, but they do not work for everyone and treat symptoms rather

Question number

than every cause, so the most effective approach for many patients combines drugs with a psychological therapy.

Section C: Psychology and consumer behaviour

10 Retail ambience is the atmosphere of a store, such as lighting, music, colour and layout. The statement claims it changes emotions but does not determine why people shop.

There is evidence that ambience does determine behaviour, not just emotion. Mehrabian and Russell's (1974) pleasure-arousal-dominance (PAD) model says environmental stimuli create emotional states of pleasure, arousal and dominance, and these cause approach behaviours (staying longer, exploring, buying more) or avoidance behaviours (leaving, buying less). Donovan and Rossiter (1982) applied this to stores and found that pleasure experienced in a store predicted willingness to spend time and money there. In the cognition-emotion model, Lazarus (1991) argued that we appraise a stimulus, consciously or unconsciously, and this appraisal produces arousal and emotion, which then guides behaviour. Bitner's (1992) servicescape also proposes that the physical environment influences customers' responses and behaviour. This architectural determinism suggests ambience can be a reason to shop, e.g. people visit an attractive mall for the experience.

However, there is support for the statement. People have free will: they choose where to shop and why, e.g. because they need food, so ambience affects how they feel once inside but not why they came. Many other factors determine the decision to shop, such as convenience (the store is near home), price, product range and recommendations. Ambience may attract someone into a store, but product factors such as cost determine whether they buy. Individual differences mean the same ambience pleases one shopper and irritates another, so it cannot determine behaviour for everyone. The models are also reductionist, focusing on

Question number

emotion and ignoring cognitive goals such as a shopping list.

Conclusion: I largely agree. Ambience influences emotional states, which then influence how long shoppers stay and how much they spend, but it does not determine their reason for shopping, which depends mainly on need, product and convenience, so a soft deterministic view is most accurate.

Section C: Psychology and health

11 Physiological measures record bodily responses to stress, such as heart rate, blood pressure, cortisol or brain activity; psychological measures are self-reports such as questionnaires.

Physiological measures can be more useful. They are objective: Evans and Wener (2007) measured salivary cortisol in train commuters and found it was higher when people sitting close to them (proximal density) was high, which does not rely on the commuter's opinion and is not open to social desirability or researcher interpretation. Wang et al. (2005) used fMRI and found that a stressful mental arithmetic task increased blood flow in the right ventral prefrontal cortex, and that this persisted afterwards, giving precise measurement of a stress response that a person could not report. Recording devices such as a sphygmomanometer measure on a standard scale, so they are reliable, and human physiology is the same in all cultures, so measures can be compared across groups.

However, psychological measures are also useful. Subjective data matters: only the person can explain how stressed they feel and why. Holmes and Rahe (1967) created the Social Readjustment Rating Scale, where 43 life events are given life change units, and high scores were linked to later illness, so a simple questionnaire can predict health. Friedman and Rosenman (1974) identified the Type A personality using a structured interview and found Type A men were about twice as likely to develop coronary heart disease. Physiological measures alone mean

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little: blood pressure can be high for many reasons, and cortisol is also affected by time of day and exercise, so an explanation from the person is needed. Using one physiological measure is reductionist, and physiological data are often correlational. Physiological measures are also expensive and may be stressful themselves, e.g. lying in an fMRI scanner.

Conclusion: I disagree. Physiological measures are more objective, but psychological measures explain the causes and experience of stress, so neither is much more useful; the most useful research uses both, as Evans and Wener did by combining cortisol with self-reported stress.

Section C: Psychology and organisations

12 Universalist theories, such as the "great man or woman" theory, claim that leaders are born with traits such as charisma and intelligence that make them effective in any situation. Situational leadership (Hersey and Blanchard, 1988) claims the leader must adapt their style to the readiness of followers.

There is some support for the statement. If great leaders are born rather than made, they have natural insight and do not need training to adapt: their skills are universal, so they can lead in any situation. Charismatic leaders attract followers who will do anything to support them, so the followers adapt to the leader rather than the leader adapting to them. Historical leaders who succeeded in many different situations, such as wartime and peacetime, seem to support this, making a situational approach irrelevant.

However, there are stronger arguments against. Universal traits may not apply to specific work situations: a charismatic leader may inspire but fail to give the clear directions that inexperienced workers need. Hersey and Blanchard argue that workers with low readiness need a telling style, while able and willing workers need a delegating style; no single style, however "great" the leader, suits both. Fiedler's

Question number

(1967) contingency theory also found that task-oriented leaders were effective in very favourable or very unfavourable situations and relationship-oriented leaders in moderate ones, so effectiveness depends on the situation. Research on universalist traits found no consistent set of traits that all successful leaders share, which weakens the great person theory. Many work situations are unique, and workers have different needs and attitudes, so even a natural leader must adapt to get the best from them. The great person view is also individualistic and ignores followers. Conclusion: I disagree. Some leaders may have natural qualities, but these do not guarantee success in every situation; effective leaders, however talented, still need to adapt to their workers, so situational leadership remains highly relevant.

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PSYCHOLOGY **9990/43**

Paper 4 Specialist Options: Application **October/November 2020**

1 hour 30 minutes

4299992403

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **four** questions in total:
  - Answer questions from **two** options.
    - Section A: answer **two** questions.
    - Section B: answer **one** question.
    - Section C: answer **one** question.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **8** pages. Blank pages are indicated.

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Section A

You must answer **two** questions from this section.
Answer all the parts for the two questions you choose.

Psychology and abnormality

1 The case study of little Albert

An experimenter made a loud noise behind little Albert who jumped, gasped and raised his arms. The second time the experimenter did this, Albert trembled and almost cried. The third time, Albert cried suddenly. So the experimenter had shown that an emotional situation in the laboratory could produce fear and crying in a child.

(a) Outline the psychological explanation of phobias on which this case study is based. [2]

(b) Suggest **one** reason why this case study could be considered unethical. [2]

(c) **(i)** Suggest **one** generalisation that can be made from this case study. [2]

(ii) Suggest **two** reasons why the findings of this case study **cannot** be generalised. [4]

(d) Discuss the advantages and disadvantages of conducting research on phobias in a laboratory. You should include a conclusion in your answer. [5]

Psychology and consumer behaviour

2 Wansink et al. (2005) investigated the effect of food names.

Cathy: 'I think I'll have Traditional Cajun Red Beans with Rice and Grandma's Zucchini Cookies for lunch today. What will you have?'
Julia: 'I think I'll have Grilled Chicken and Chocolate Pudding.'

(a) Identify the **two** conditions of the independent variable (IV) in the study by Wansink et al. (2005). [2]

(b) **(i)** Explain how the conditions of the IV were rotated (counterbalanced). [2]

(ii) Suggest why the conditions of the IV were rotated (counterbalanced). [2]

(c) The participants were asked open-ended questions, including 'Comment on the food'.

Suggest **one** strength and **one** weakness of using open-ended questions in this study. [4]

(d) Discuss the advantages and disadvantages of conducting field experiments to investigate the effect of food names on consumers. [5]

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Psychology and health

3 Munchausen syndrome is an extreme type of factitious disorder. The case study by Aleem and Ajarim (1995) describes a patient with Munchausen syndrome, who first appeared to have an immune deficiency.

(a) Explain what is meant by a 'factitious disorder'. [2]

(b) Identify **two** essential and **two** supporting diagnostic features of Munchausen syndrome, according to Aleem and Ajarim. [4]

(c) **(i)** Describe the result of **one** named physical examination used in this study. [2]

(ii) Suggest **one** advantage of a physical examination over a clinical interview, using an example from this study. [2]

(d) Discuss the advantages and disadvantages of case studies to gather data on factitious disorders like Munchausen syndrome. You should include a conclusion in your answer. [5]

Psychology and organisations

4 Hackman and Oldham (1976) used several different ways to collect data for their job characteristics model:

- the self-report Job Diagnostic Survey (JDS) was administered to groups of employees
- supervisors and the researchers completed the Job Rating Form
- members of management were asked to rate the work performance of each worker
- absence data was obtained from company records.

(a) Explain what is meant by the 'job characteristics model'. [2]

(b) Outline **two** psychological states identified by this model. [4]

(c) **(i)** Suggest **one** strength of using absence data from company records. [2]

(ii) Suggest **one** weakness of using members of management to rate each worker. [2]

(d) Discuss the advantages and disadvantages of using self-reports to gather data on job satisfaction. You should include a conclusion in your answer. [5]

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Section B

You must answer **one** question from this section.

Psychology and abnormality

5 **(a)** Design a study to investigate phobias of horses in boys. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and consumer behaviour

6 **(a)** Design a laboratory experiment to investigate the effect of 'eye magnets' when choosing an item of food on a menu. [10]

(b) Explain the psychological and methodological evidence on which your experiment is based. [8]

Psychology and health

7 **(a)** Design a longitudinal study to investigate whether stress has a negative effect on health. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and organisations

8 **(a)** Design a study to investigate how much time is spent managing group conflict by people at different levels of management. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

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Section C

You must answer **one** question from this section.

Psychology and abnormality

9 *'Exposure and response prevention is always successful in treating obsessive-compulsive and related disorders.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and consumer behaviour

10 *'Determinism: retail store architecture controls how shoppers behave.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and health

11 *'All patients would rather disclose to a computer than a human, in order to be diagnosed.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and organisations

12 *'Job satisfaction can only be measured effectively using closed questions.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

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Surname	StemUp Model Solution
Answer booklet	Write the question number in the left-hand margin at the start of each answer.

Question number

Answers for paper 9990/43

Section A: Psychology and abnormality

1(a) The case study is based on the behavioural explanation of phobias: phobias are learned through classical conditioning (Watson and Rayner, 1920). The loud noise is an unconditioned stimulus (UCS) that naturally produces fear (the unconditioned response). When a neutral stimulus such as a white rat is repeatedly paired with the noise, it becomes a conditioned stimulus (CS) that on its own produces fear, the conditioned response.

1(b) Albert was deliberately caused psychological harm: he was taught to be afraid and the noise made him tremble and cry, and he was never deconditioned, so his fear may have lasted. He also could not give consent himself or withdraw, as he was a baby.

1(c)(i) Phobias can be learned by association. Just as Albert learned to fear a stimulus paired with a loud noise, many people may develop a fear of animals (or other objects) because they were once paired with a frightening experience, and the fear can generalise to similar stimuli.

1(c)(ii) First, Albert was the only participant. One 11-month-old child may have been unusually easy (or hard) to condition, so it is problematic to assume that all children, or adults, learn fears in the same way.

Second, it has been claimed that Albert may have had a mental (neurological)

Question number	
	impairment, so he was not a typical child. Also, the study shows how one fear can be learned in a laboratory, but many phobias develop without any frightening experience, so it may not explain all phobias.
1(d)	One advantage of a laboratory is control. A laboratory experiment has an IV (e.g. pairing a rat with a noise) and a DV (fear responses), and extraneous situational variables can be controlled, so cause and effect can be established, as Watson showed that conditioning caused Albert's fear. A second advantage is precision: the stimulus can be presented in exactly the same way each time, and responses such as heart rate or crying can be measured with scientific equipment, so the procedure can be replicated to check reliability. One disadvantage is low ecological validity. Phobias apply to events in the real world, such as meeting a dog in the street, so behaviour in an artificial laboratory may not reflect how fear really develops or is shown. A second disadvantage is that participants (or parents) know they are in a study and may respond to demand characteristics, and isolating one variable is reductionist, as many other factors such as genes or cognitions may contribute to a phobia. Conclusion: laboratory research is best for testing whether a specific mechanism such as conditioning can produce fear, but its findings should be checked against real-life case studies before they are used to explain how phobias develop in everyday life.
	Section A: Psychology and consumer behaviour
2(a)	Condition 1: descriptive, evocative menu names, e.g. Traditional Cajun Red Beans with Rice or Succulent Italian Seafood Filet (Cathy's choices). Condition 2: regular, basic names, e.g. Red Beans with Rice or Seafood Filet (like

Question number	
	Julia's Grilled Chicken).
2(b)(i)	On the Tuesday and Friday lunches of each test week, two items had their regular name, two had a descriptive name and two were not offered. Over the following weeks the items and conditions were systematically rotated until every item had appeared in every condition, and the rotation was repeated in weeks four to six.
2(b)(ii)	It was a control for extraneous variables. Unexpected events on particular days, such as bad weather, religious holidays or game days, could change food choice or how many people ate in the cafeteria, so rotating stopped these from confounding the effect of the name.
2(c)	Strength: participants can say in their own words what they thought about the food and why they chose it, giving detailed qualitative data, e.g. a diner may explain that "Grandma's" cookies sounded homemade, which tells researchers more than a sales figure. Weakness: the answers are hard to categorise and may be misinterpreted. A comment such as "I like seafood" could apply to both Succulent Italian Seafood Filet and Seafood Filet, so it does not show whether the name had an effect. Diners may also give socially desirable answers to please the researchers.
2(d)	One advantage is ecological validity. Consumer choices happen in real places such as the cafeteria used by Wansink et al., so a field experiment measures real purchases with real money rather than imagined choices. A second advantage is that people often do not know the menu is being manipulated, so they choose naturally; in this study the questionnaires were only given after the food had been chosen, which reduced demand characteristics. A field experiment still has an IV and DV, so cause and effect can be inferred.

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	One disadvantage is that extraneous variables are harder to control than in a laboratory, e.g. weather, price or which friends a diner eats with may affect choice, which is why rotation of conditions was needed. A second disadvantage is ethical: diners may not know they are in a study, so they cannot give informed consent. Also, isolating one IV (the name) is reductionist, as price, smell and display also affect choice. Conclusion: field experiments are the better choice for this topic because menu names matter only if they change real purchases, provided that careful counterbalancing is used to reduce the loss of control.
	Section A: Psychology and health
3(a)	A factitious disorder is one where a person intentionally produces or fakes physical or psychological symptoms in order to take on the sick role, e.g. injuring themselves or faking illness to get medical attention, rather than for an external reward such as money.
3(b)	Essential features: pathological lying (pseudologia fantastica); recurrent feigned or simulated illness. (Peregrination, travelling from hospital to hospital, is also essential.) Supporting features: multiple hospitalisations; multiple scars, usually abdominal. (Others include knowledge of the medical field and evidence of self-induced physical signs.)
3(c)(i)	A physical examination on her current admission found that she was afebrile with normal pulse and blood pressure, but had multiple scars over the abdominal wall and a tender, hot, indurated area (4 × 5 cm) over the side of the right breast, with two small tender lymph nodes in the right armpit.

Question number	
3(c)(ii)	A physical examination gives objective data that the patient cannot fake, whereas in a clinical interview a patient with Munchausen syndrome can simply lie, as pathological lying is an essential feature. For example, whatever history she gave, her multiple abdominal scars were objective evidence of many previous operations.
3(d)	One advantage is detail: a case study investigates one person in depth over time, using interviews, medical records and physical tests, which is needed to uncover deception, as in Aleem and Ajarim's patient. A second advantage is that factitious disorders are rare, so large samples are impossible; unique case studies add knowledge, and if many case studies show the same essential features, such as pathological lying, it becomes possible to generalise. One disadvantage is that each patient is unique (individual differences), so what is found in one patient, e.g. an apparent immune deficiency, may not apply to others with the disorder. A second disadvantage is that no standardised measurements are taken that can be compared across all patients, and much data relies on the patient, who by definition lies, so data may be invalid. Conclusion: case studies are the most practical and appropriate method for a rare and deceptive disorder like Munchausen syndrome, but conclusions should be built from many case studies rather than one.
	Section A: Psychology and organisations
4(a)	It is a model of the conditions under which workers become internally motivated to perform well. Five core job characteristics (skill variety, task identity, task significance, autonomy and feedback) create three critical psychological states,

Question number	
	which lead to high motivation, performance and satisfaction, especially in workers with high growth need strength.
4(b)	Experienced meaningfulness of the work: the degree to which the worker feels the job is meaningful, valuable and worthwhile. It comes from skill variety, task identity and task significance. Experienced responsibility for outcomes: the degree to which the worker feels personally accountable for the results of the work they do. It comes from autonomy, e.g. deciding how to do the job.
4(c)(i)	Company records are objective and official: if a worker was absent on a day this is a fact, so the data is not affected by social desirability or the worker's opinion, unlike the self-report JDS.
4(c)(ii)	Managers may not know the worker well or understand the work they actually do, so ratings may be inaccurate. They may also be biased, e.g. rating workers they like more highly, or have a hidden agenda.
4(d)	One advantage is that self-reports ask workers directly, so they can explain how they feel about their job rather than researchers guessing satisfaction from behaviour such as absence. A second advantage is that questionnaires such as the JDS can be given to large numbers easily (Hackman and Oldham studied 658 employees in 62 jobs), are easy to replicate, and closed questions give quantitative data that can be compared between jobs. One disadvantage is social desirability: workers may say they are satisfied because they fear their answers will reach managers, so the data may not be truthful. A second disadvantage is that fixed-choice questions may force workers into

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answers that do not reflect their real opinion, and leading questions may bias answers, lowering validity.

Conclusion: self-reports are essential because satisfaction is a feeling that only the worker knows, but they should be anonymous and checked against objective data such as absence records, as Hackman and Oldham did.

Section B: Psychology and abnormality

5(a) Aim: to investigate the causes and features of phobias of horses in boys, comparing behavioural, psychoanalytic and genetic explanations.

Method: an interview study with a matched comparison group. Semi-structured interviews will be held with each boy and, separately, with one parent, in a quiet room at the clinic, lasting about 40 minutes.

Sample: 20 boys aged 5 to 10 referred to child clinics with a diagnosed specific phobia of horses (using DSM-5 criteria), obtained by volunteer (self-selected) sampling through clinicians, plus 20 boys of the same ages and backgrounds with no phobia, matched on age and whether they live near horses.

Questions: closed questions, e.g. "Has your son ever been bitten, kicked or frightened by a horse? Yes / No"; "Does anyone in the family have a phobia? Yes / No"; and a fear thermometer from 0 (no fear) to 10 (most afraid) for pictures of a horse at increasing size. Open questions to the parent, e.g. "Describe when you first noticed the fear", "How does your son get on with his father?", and to the boy, "What do you think a horse might do?"

Data: quantitative data (yes/no answers and fear ratings) will be compared between the groups as percentages and means; qualitative answers will be content analysed into themes such as "frightening event", "family conflict" and "expectation of harm".

Reliability and validity: the same interviewer and standard questions are used for

Question number	
	every family; two researchers code the answers independently and inter-rater reliability is checked.
	Ethics: parents give informed consent and boys give assent in simple words; the boy may stop at any time and the session ends if he becomes distressed; data are confidential and anonymous; all families are debriefed and offered treatment for the phobia.
5(b)	Psychological evidence: the study is based on Freud's (1909) case of little Hans, a five-year-old boy with a phobia of horses. Freud claimed the horse symbolised Hans's father and the fear came from the Oedipus complex, but his data came second-hand from the father, so I interview the boy and the parent directly and ask about family relationships to test this. The behavioural explanation (Watson and Rayner, 1920) says phobias are learned through classical conditioning; Hans himself had seen a horse fall in the street, so I ask whether a frightening event happened. DiNardo et al. (1988) found that many people with dog phobia reported a frightening experience, but so did people without the phobia, and that phobics exaggerated the likely harm; this is why I include a non-phobic comparison group and the question about what a horse might do (a cognitive explanation). Ost (1992) found that blood and injection phobia ran in families, supporting a genetic explanation, so I ask about family history.
	Methodological evidence: interviews suit children, who may not be able to read a questionnaire, and a semi-structured format allows follow-up questions. Closed questions and fear ratings give quantitative data that is easy to compare between groups, while open questions give rich qualitative data, as in a case study. A matched comparison group controls participant variables. Using several boys rather than one (as Freud did) improves generalisability. Standardised questions and inter-rater checks improve reliability, and protection from harm and assent are needed because the participants are young and the topic is frightening.

Question number

Section B: Psychology and consumer behaviour

6(a)

Aim: to investigate whether an eye magnet increases attention to, and choice of, a target menu item.

Design: a laboratory experiment with a repeated measures design. IV: whether the target dish has an eye magnet (a graphic box around it) or no eye magnet. DVs: eye-tracking measures (time to first look at the target, number of fixations and total gaze time on it) and whether the participant chooses the target dish.

Materials: a three-panel, two-fold menu shown on a screen fitted with an eye tracker. Two versions are made; they are identical (same dishes, prices, font, colours and position) except for the box around the target.

Controls: only one type of eye magnet (a box) is used so its effect is isolated; the target is placed in the same position in both versions; lighting and seating distance are the same; and different target dishes of similar price are used in each condition so participants do not see the same menu twice.

Sample: 40 adults aged 18 to 60 recruited by opportunity sampling from a university and local community, who normally eat in restaurants and have normal or corrected vision.

Procedure: participants are told to imagine they are in a restaurant and to read the menu and say what they would order. Half see the eye-magnet menu first and half the plain menu first (counterbalancing), with a filler task in between.

Data and analysis: quantitative; mean time to first fixation and gaze time are compared, and the percentage choosing the target in each condition.

Ethics: informed consent is obtained, but the specific aim is kept back to avoid demand characteristics, so participants are fully debriefed; they can withdraw and data are anonymous.

Question number	
6(b)	Psychological evidence: Pavesic (2005) describes the typical pattern of eye movement over a three-panel, two-fold menu, but says the pattern is not fixed and can be altered by eye magnets, small graphic techniques that attract the eye and the guest's attention, such as boxes around items, different type fonts, colour and borders. My IV uses a box because Pavesic says this is one of the best examples. Pavesic also lists common menu mistakes, such as too many items or poor layout, which I avoid by keeping the menu simple so that only the box varies. Choosing a three-panel menu matches the format Pavesic describes, so the results can be compared with his claims about gaze motion. Methodological evidence: a laboratory experiment allows tight control, so any difference in attention can be attributed to the eye magnet. An eye tracker gives objective, precise quantitative data rather than relying on what diners say they looked at. Repeated measures removes participant variables such as reading habits, and counterbalancing reduces order effects. Using different target dishes stops practice or boredom effects. However, the lab is artificial, as diners are not hungry or paying, so ecological validity is lower; the choice measure partly addresses this by checking whether attention actually changes the decision.
	Section B: Psychology and health
7(a)	Aim: to investigate whether stress has a negative effect on health over time. Method: a longitudinal (prospective) study of the same participants for five years, combining questionnaires and physiological measures. Sample: 300 adult employees aged 25 to 55 from several large organisations, recruited by volunteer sampling through workplace adverts, all healthy at the start (checked by a health questionnaire). Measures every six months: (1) stress: the Social Readjustment Rating Scale, where participants tick life events from the last six months and a total life change

Question number	
	unit score is calculated, plus a 1 to 10 rating of work stress; (2) a saliva sample to measure cortisol, taken at the same time of day; (3) health: blood pressure measured by a nurse with a sphygmomanometer, number of days ill, and illnesses recorded by their doctor (with permission). Analysis: quantitative data; correlations between stress scores and later health outcomes, and comparison of health in the highest and lowest stress groups over time. Controls: the same standardised measures and times are used every time; information on smoking, diet and exercise is collected so these can be taken into account. Ethics: informed consent including for medical records, the right to withdraw at any time, confidentiality and anonymity, and anyone found with high blood pressure is advised to see their doctor; full debrief at the end.
7(b)	Psychological evidence: Selye's (1936) General Adaptation Syndrome says the body responds to stress in three stages: alarm, resistance and exhaustion. In the exhaustion stage the body cannot stay in a heightened state, so systems break down, leading to high blood pressure, stomach ulcers, heart attack or stroke. Because exhaustion takes time to develop, a longitudinal study is needed, and blood pressure and illness are measured as the effects Selye predicts. Cortisol is measured because it is released by the adrenal cortex during prolonged stress. Holmes and Rahe (1967) developed the SRRS and found that people with high life change scores were more likely to become ill, so I use their scale. Chandola et al. (2008) followed civil servants for many years and found work stress was linked to heart disease, partly through poor diet and lack of exercise, so I record these health behaviours. Methodological evidence: a longitudinal design follows the same people, so changes over time can be tracked and participant variables are controlled; stress is

Question number

measured before illness, so the direction of the link is clearer than in a snapshot study. Using both self-report and physiological measures gives triangulation: cortisol and blood pressure are objective, while the SRRS shows how much stress was experienced. A large, varied sample improves generalisability and allows for attrition, which is a common problem in longitudinal studies. The data are correlational, so cause and effect cannot be certain.

Section B: Psychology and organisations

8(a) Aim: to investigate how much working time is spent managing group conflict by managers at different levels.

Design: a quasi-experiment with independent measures. IV: level of management (senior, middle and first-line supervisor). DV: percentage of working time spent managing conflict.

Sample: 60 managers, 20 at each level, from six organisations of different types (e.g. a bank, a hospital, a factory), recruited by stratified sampling so each level and organisation is equally represented.

Method: (1) a structured diary for two weeks: at the end of each hour the manager records the minutes spent dealing with conflict, e.g. disagreements between staff, complaints about colleagues, disputes between departments, and ticks which conflict-handling mode they used (competing, collaborating, compromising, avoiding or accommodating). (2) To check validity, a trained observer shadows a sub-sample of 15 managers for two days, using event sampling with the same conflict categories.

Data analysis: quantitative; mean percentage of time spent on conflict for each level is calculated and shown in a bar chart; the most used conflict-handling mode for each level is identified.

Reliability: a clear operational definition of conflict and the same diary sheet is

Question number	
	used by all; observer records are compared with diaries for agreement.
	Ethics: informed consent from managers and organisations; names of staff are never recorded; confidentiality; right to withdraw; debrief with a summary of results.
8(b)	Psychological evidence: Thomas (1976) described the importance of conflict in organisations and reported survey evidence (Thomas and Schmidt, 1976) that managers spend about a fifth of their time dealing with conflict, with the amount differing by level of management. My study tests whether this is still true.
	Thomas also described five conflict-handling modes based on two dimensions, assertiveness (satisfying one's own concerns) and cooperativeness (satisfying the other party's concerns): competing, collaborating, compromising, avoiding and accommodating. I include these in the diary because the time spent may depend on the mode, e.g. avoiding may take little time now but more later. Conflict can be between individuals in a group or between groups, so my definition includes both.
	Methodological evidence: a diary records behaviour soon after it happens, reducing memory errors compared with a single questionnaire, and gives quantitative data for comparison. However, diaries are self-report and managers may under-report conflict to look competent (social desirability), so observation of a sub-sample allows triangulation. Level of management is a naturally occurring IV, so this is a quasi-experiment and cause and effect cannot be certain. Stratified sampling across different organisations improves generalisability, and confidentiality is especially important as workplace conflict is sensitive.
	Section C: Psychology and abnormality
9	Exposure and response prevention (ERP) is a behavioural therapy for OCD. The

Question number

patient builds a fear hierarchy and is gradually exposed to situations that trigger obsessions, while being prevented from carrying out the compulsion, so they learn that anxiety falls without the ritual.

There is evidence that ERP is successful. Lehmkuhl et al. (2008) used ERP with Jason, a 12-year-old boy with OCD and autism. Over a series of sessions, which included psychoeducation and a hierarchy of exposures, his symptoms measured on the CY-BOCS fell markedly. This shows that ERP can work even for a child with a complex additional condition, and that a "basic" treatment can be adapted to an individual's needs, e.g. by taking account of his autism. If ERP works for a child, it is likely to work for adults who can understand the reasons for it. ERP is also gradual, facing fears step by step, so unlike flooding the patient is not overwhelmed, which should make it acceptable to most people.

However, "always" is too strong. Lehmkuhl et al.'s study is a case study of one boy, so it cannot be generalised: Jason was unique, with autism as well as OCD, and other patients may not respond. ERP causes high anxiety, so some patients refuse it or drop out, and it cannot succeed if it is not completed. Some patients lack insight, especially in related disorders such as hoarding disorder, and do not see their behaviour as a problem, so they will not resist the compulsion. ERP is also behavioural, so it treats the symptoms but not underlying thoughts; cognitive therapy, or drugs such as SSRIs, may be more appropriate for some people, and many patients need a combination. No single therapy works for everyone because of individual differences.

Conclusion: I disagree with the statement. ERP is an effective, well-supported treatment that helps many people with OCD, as Jason's case shows, but evidence from one case cannot prove it works for all, and drop out and lack of insight mean it is not always successful, so it should be offered alongside alternatives.

Section C: Psychology and consumer behaviour

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10

Determinism is the view that behaviour is controlled by factors outside a person's control. Architectural determinism claims that the built environment, such as store layout, controls how shoppers behave.

There is evidence that architecture influences shoppers. Vrechopoulos et al. (2004) compared grid, freeform and racetrack layouts in a virtual store and found that the layout affected how easy shoppers found the store to use, how they moved around it and how long they spent. Turley and Milliman (2000) reviewed many studies of store atmospherics and concluded that exterior design, interior layout, lighting, music and smell all influence purchasing, time spent in the store and approach behaviour. Finlay et al. (2006) showed participants videos of casinos with different designs and found that the environment affected their emotions and their intentions to gamble. This supports the statement, and retailers use these findings, e.g. placing essentials at the back so shoppers pass other products.

However, "controls" is too strong. People have free will: they choose which store to visit and can walk out of one they dislike, and many shoppers go in with a list and buy only what they planned. Factors associated with the product, such as price, quality and brand, are often more important in the final decision; an attractive store may attract people, but it does not make them buy. Friedman's casino design principles focus on the gaming machines rather than the atmosphere, which suggests the product itself drives behaviour. Individual differences also matter: a layout that relaxes one shopper may frustrate another. Much research uses virtual stores or videos, so it lacks ecological validity and may overstate the effect of architecture. Finally, the effects are probabilistic, showing small average changes, not control of every individual.

Conclusion: I partly agree. Store architecture clearly influences how shoppers move and feel, so it is a powerful tool for retailers, but it does not control behaviour: it interacts with free choice, product factors and individual differences, so soft

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determinism is a more accurate description.

Section C: Psychology and health

11 Disclosure is how much information a patient reveals to a practitioner, which affects whether a correct diagnosis can be made.

There is evidence that patients disclose more to a computer. Robinson and West (1992) studied patients at a genitourinary (sexually transmitted infection) clinic who gave information by computer interview, written questionnaire or face-to-face interview with a doctor. Patients reported more symptoms and more previous visits to the clinic to the computer than in the other conditions. This suggests that people feel a computer will not judge them, so for embarrassing problems they prefer it. A computer is also quick, available at any time and does not use the time of a busy doctor, and it asks every question in a standard way, so it can be good at diagnosing simple or common illnesses.

However, the word "all" is not supported. Robinson and West studied only one type of clinic where the topic was sensitive; for non-embarrassing problems such as a sports injury people may be happy to talk to a human. Individual differences matter: older people or those unfamiliar with technology may find a computer difficult. Disclosing more is also not the same as preferring the computer to diagnose: a human practitioner can deal with ambiguous symptoms and rare illnesses that a computer is not programmed for, and patients may not trust a treatment prescribed by a machine. A human can be patient-centred, showing empathy and reassurance; Savage and Armstrong (1990) found that patients were more satisfied when the doctor used a directing style, showing that many patients value what a doctor says to them, not just giving information. Also, the study only measured how much was disclosed, not whether patients would rather use the computer.

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Conclusion: I disagree. Some patients, especially with sensitive problems, disclose more to a computer, so computers are useful for collecting information, but not all patients prefer them, and most still want a human practitioner to make and explain the diagnosis, so a combination is best.

Section C: Psychology and organisations

12 Closed questions give fixed answer choices, such as yes / no or a rating scale, whereas open questions allow workers to answer in their own words.

There is evidence for closed questions. The Job Descriptive Index (Smith et al., 1969) asks workers to answer yes, no or ? to adjectives about five aspects of their job (work, pay, promotion, supervision and co-workers). The Minnesota Satisfaction Questionnaire (Weiss et al., 1967) uses a five-point scale from very dissatisfied to very satisfied on aspects of the job. These give quantitative scores, so a worker can be placed in a category (high, average or low satisfaction) and comparisons can be made between workers, departments or over time. Closed questions are easy and quick to answer, so large numbers of workers can be surveyed, and they are easy to score objectively and replicate, making them reliable.

However, "only" is too strong. Closed questions may not fit a worker's real feelings: they may want to answer "it depends", so they are forced into an answer that lowers validity. A five- or seven-point scale has a mid-point, so some workers choose it for every item without thinking. Closed questions produce numbers but not understanding of why a worker is dissatisfied, which managers need to make changes. Open methods give this detail: Herzberg et al. (1959) used interviews with engineers and accountants about times they felt good or bad about their job and from this developed the two-factor theory of motivators and hygiene factors, a key theory of job satisfaction that a closed questionnaire could not have discovered. Walton's (1974) quality of work life approach also considers broad

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factors, such as the social relevance of work, that a short rating scale may miss. Both open and closed self-reports suffer from social desirability, so objective measures such as absence or labour turnover can also measure dissatisfaction. Conclusion: I disagree. Closed questions are effective for measuring and comparing levels of satisfaction, but open questions are needed to understand its causes, so the most effective measurement uses both.

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