A LEVEL

Exemplar Candidate Work

PSYCHOLOGY

H567
For first teaching in 2015

H567/03 Applied psychology
Summer 2017 examination series

Version 1
## Contents

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Introduction

These exemplar answers have been chosen from the summer 2017 examination series.

OCR is open to a wide variety of approaches and all answers are considered on their merits. These exemplars, therefore, should not be seen as the only way to answer questions but do illustrate how the mark scheme has been applied.

Please always refer to the specification (http://www.ocr.org.uk/Images/171732-specification-accredited-a-level-gce-psychology-h567.pdf) for full details of the assessment for this qualification. These exemplar answers should also be read in conjunction with the sample assessment materials and the June 2017 Examiners’ Report to Centres available on the OCR website http://www.ocr.org.uk/qualifications/.

The question paper, mark scheme and any resource booklet(s) will be available on the OCR website from summer 2018. Until then, they are available on OCR Interchange (school exams officers will have a login for this).

It is important to note that approaches to question setting and marking will remain consistent. At the same time OCR reviews all its qualifications annually and may make small adjustments to improve the performance of its assessments. We will let you know of any substantive changes.
Question 1(a)

Outline how mental hospitals failed to detect sanity in the research by Rosenhan (1973).

High level answer – 2 marks

1. a. Rosenhan sent 8 pseudopatients (some people pretending to be mentally ill) into 12 mental hospitals. All were admitted into the hospitals with diagnoses of schizophrenia, and one with manic depression. Despite the fact the pseudopatients were sane, the medical staff in the hospitals failed to detect this and they were kept in hospital for an average of 19 days before being released with schizophrenia in remission.

Examiner commentary

The candidate identified that the pseudo patients were admitted with a diagnosis of schizophrenia (1 mark); the failure to detect sanity shown by the fact that they stayed for an average of 19 days and were released as Schizophrenics in remission (2nd mark).
Medium level answer – 1 mark

Examiner commentary

The candidate speaks broadly about their admission only (1 mark)
Question 1(b)

Discuss ethical considerations of the research by Rosenhan (1973).

High level answer – 6 marks

One ethical consideration of the research by Rosenhan is that major deception was used as the pseudopatients were not actually ill, which medical staff were lead to believe. This meant that staff were deceived as patients were admitted without actually being mentally ill. Another ethical consideration of the research was protection from harm of the real patients who were in the mental hospitals that Rosenhan and the other pseudopatients were admitted to. It is possible that as a result of the pseudopatients being admitted, time and spent with real patients trying to treat them would have reduced to allow for treatment time spent with the pseudopatients. However, the since the nurses spent 90% of their time in their office anyway, this is unlikely to have made a huge difference to the time ‘real’

Examiner commentary

Very good answer including details of the cultural location – Amsterdam – and the fact that it cannot be applied to other cultures making it ethnocentric. Both elements are present in context for 2 marks.
Medium level answer – 3 marks

1b

Ethical considerations of research by Rosenhan include; during study 2 of Rosenhan, he said he sent more pseudopatients to these hospitals however he didn’t have yet the staff believed 4 real patients. Make have been taken this is a problem because the staff were essentially saying that these patients had nothing wrong with them when they were truly ill.

When the pseudopatients went to the hospitals they wrote diaries. They recorded that every time they went to speak to a member of staff they would ignore them. Not make eye contact and make conversations extremely brief. They recorded that only 6 just over 11% of the time. They would actually speak to each other. This dehumanises the patients because they were not treated as real humans.

Another ethical consideration is ‘the thickness of labels’ when the pseudopatients left the hospital they were labelled as having ‘schizophrenia in remission’ despite them not actually have schizophrenia anymore. If they used their real names then it would have been stuck to them like it will be all other patients. These labels make it difficult to get jobs and labels them at different levels.
Examiner commentary

This candidate has identified ethical considerations, one more clearly than the other, one is wrapped in some context. More clarity of evidence required for 4th mark, and 'discussion' needed for 5/6.
Examiner commentary

This candidate has identified ethical considerations (2 marks), but there is no analysis or discussion.
Question 2

Richard and Wendy are parents. They have just been told that their son has a psychotic disorder. They don’t understand what this means.

How might a clinical psychologist explain to Richard and Wendy the characteristics of a psychotic disorder?

High level answer – 6 marks

A clinical psychologist could first bring out the DSM and allow Richard and Wendy to read through first, then explain.

The psychologist could explain that psychotic disorders are when there is a split between the mind and reality – therefore their son experiences positive symptoms in addition to normal behaviour, such as hallucinations, delusions, catatonic behaviour, etc. The psychologist could also explain that their son experiences negative symptoms, which is an impairment in normal behaviour, such as poverty of speech, incoherent alogia, etc. Thus, Wendy and Richard would understand the characteristics of their son’s schizophrenia, lessening fluency.

Examiner commentary

This candidate answered in a straightforward way. They did this by making broad statements about DSM (1-2 marks), it showed some detailed knowledge that was appropriate and applicable to the layman (3-4 marks) and applied this to explaining to a couple about their son. (5-6 marks). The candidate was also mindful of the ‘how’ request in the question. Very few candidates were able to address all these factors.
Examiner commentary

This candidate broadly addressed the theme of the question (1-2 marks) with some reference to some symptoms such as hallucinations and hearing voices. (3 marks). 'The treatment of dopamine' does not address a question about application of explaining characteristics and so is irrelevant. There is little or no engagement with applying knowledge to explain to parents.
Question 3(a)

Outline a biological treatment of one specific disorder.

High level answer – 5 marks

A biological treatment for the affective disorder depression is drug therapy, which is effective in reducing symptoms of depression and links to biochemical and brain abnormality explanations of mental illness. Depression can be explained biochemically in terms of a lack of serotonin, also known as the ‘feel good’ chemical, in neural synapses which prevents the passing on of ‘happy’ messages along the neural pathways. A lack of serotonin is associated with low mood as serotonin (a neurotransmitter) is unable to bridge the gap to pass on stimuli through activation. Selective Serotonin Reuptake Inhibitors (SSRIs) are a form of drug therapy which block serotonin reuptake by the pre-synaptic cell after activation. This means that more serotonin is available to bridge neural synapses and pass on ‘happy’ stimuli along neural pathways so a positive response to positive stimuli can be achieved, therefore reducing symptoms of depression.

Examiner commentary

The candidate outlines a treatment and shows good understanding, not just generally but with reference to some detail. The detail does not need to be intricate, merely indicate that the candidate has knowledge beyond broad coverage and general understanding. The quality of response is thus beyond ‘reasonable’.

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Low level answer – 2 marks

Examiner commentary

This response is clearly very limited, but does have a reference to a specific drug and a relevant neurotransmitter, hence the higher mark in the ‘limited’ band.
Question 3(b)

Discuss one strength and one weakness of the biological treatment referred to in your answer to question 3(a).

High level answer – 6 marks

A strength is that the many variations of anti-depressants mean that the treatment can be tailored to the individual based on their symptoms. For example, if an individual is suffering particularly from loss of activity, NPI’s might be more suitable because they build up noradrenaline which regulates activity levels. This is a strength because it means they are arguably a more universally successful treatment in the treatment of many different patients/symptoms. However, this is arguably less of a strength because there’s limitations to who can be prescribed which anti-depressants; for example, MAO’s are unsuitable for high risk suicide patients and tricyclics are unsuitable for women. Thus, the choice of drug per person is somewhat limited.

A weakness of anti-depressants as a treatment for depression is that they’re a reductionist treatment in that they assume depression is due to “faulty” bio-chemistry and treat it according to this rationale. They therefore might be less useful as a treatment because they ignore more holistic factors such as environmental stressors or recent events. Thus, they’re essentially treating depression on the premise that it’s a disorder resulting from bio-chemistry, which
### Examiner commentary

This candidate identifies a strength, and later a weakness. For each they then outline the strength/weakness, showing some level of analysis. They then comment on this, fulfilling the 'discuss' command in the question. As a guide, there is one mark for identifying, one for outlining and one for commenting, for each of "a strength" and "a weakness", so these do not need to be in any depth.
Low level answer – 1 mark

Examiner commentary

The candidate's suggested strength receives no marks. The weakness of drugs (prozac) treating symptoms not underlying cause receives a mark, but the analysis and discussion do not relate to this.
Question 4

To what extent are alternatives to the medical model of explaining mental illness scientific?

High level answer – 10 marks

An alternative to the medical model would be the behaviourist explanation, which assumes that we are born a blank slate (tabula rasa), therefore mental illness are learned from the environment and the result of nurture. The behaviourist approach is scientific to a large extent due to the use of lab experiments which allows for high levels of control, therefore the effect of the IV on the DV is clearly measured. An example would be Little Albert – using the concept of classical conditioning, a little boy learned to fear white objects due to an association between a white rat and a loud noise, which then generalised to other white objects leading to his phobia, which is an anxiety disorder. Thus through the lab controlled condition, the behaviourist approach is scientific to a large extent. However it is unscientific it is also scientific as it is objective – which is free from bias and is shown through the Little Albert study again as the concept of classical conditioning was objective to see the effects of a conditioned stimulus and a conditioned response.

Another alternative would be the psychodynamic
Examiner commentary

Weakness of the laboratory experiment is identified as having low ecological validity and this is explained in the context of the Loftus and Palmer study i.e. in terms of not being at a real car crash.

In conclusion, the the behaviourist alternative is scientific as it uses lab experiments and objective methods to gather research about mental illness, however, the psychodynamic perspective is less scientific due to unfalsifiable explanations to mental illness and subjective interpretations of mental illness. Thus, alternatives to the medical model vary in terms of the extent to which they are scientific.
Examiner commentary

This candidate identifies features of science, analyses them explicitly within the context of both behaviourist and psychodynamic principles, compares the two and concludes specifically about the extent to which explanations are scientific.

Medium level answer – 8 marks

Psychology is scientific if it is based off empirical, objective research, can find cause and effect and is replicable and valid.

One alternative to the medical model is the behaviourist explanation. This is the view that maladaptive behaviour is learnt, through e.g. operant or classical conditioning.

The behaviourist explanation can be seen as scientific as it relies on direct empirical research which is objective. For example, an individual may develop a phobia due to classical conditioning, between unconditioned stimulus such as someone having a negative experience in childhood of falling in water, associating that feeling with water, and then having a phobia of the sea/swimming pools.

This was shown through direct observation in Little Albert study where a white rat (neutral stimulus) was paired with a loud noise that scared the baby (unconditioned stimulus) so the baby ended up having a fear response.
to the rate by itself. This is a strength as having empirical evidence increases validity. However a weakness of this may be that it is reductionist as it simplifies phobias and doesn’t explain why the baby has an unconditioned fear response to the loud noise in the first place.

On the other hand, whereas the humanistic explanation of mental illness can be seen as unscientific, this is the theory that all individuals are unique and require self-confidence in order to self-actualise. This is dependent on if they receive positive unconditional positive regard where you are loved no matter what. If this isn’t received and an individual cannot self-actualise, they may develop negative behaviours. This explanation is subjective as it is based on individual experiences and feelings so also lacks empirical evidence and cause and effect due to it being too subjective to objectively.
Examiner commentary

This response has features of science identified, clarified and exemplified with comment. However the “To what extent” command is not addressed, hence this response fails to access the top band.
Low level answer – 4 marks

Examiner commentary

This response refers to one explanation (Szasz) only, whereas the question asks for alternatives (plural). It inevitably therefore has limited knowledge and understanding in a limited structure, hence a mark in the third band.
Question 5(a)

Explain how the research by Wood et al. (1976) could be used by teachers to help children solve problems.

High level answer – 10 marks

The research by Wood et al. aimed to observe a ‘natural’ tutorial session in order to find the best ways in which children learn and should therefore be taught in. 30 children were split into groups of 3, 4 and 5 year olds (10 in each group of equal gender) and a like completed a pyramid task which involved pairing 15 sets of wooden blocks using a rectangular rod-and-hole system to build a pyramid of 21 blocks. After being left to play alone with the pyramid for 5 minutes, a tutor entered and showed each child how to pair two blocks together. The tutor then asked the child to do the same and helped them using as many standardised instructions as possible. It was found that the 3 year olds needed the least most support from the tutor, therefore being shown what to do through demonstrations. 5 year olds needed the least help and 4 year olds needed the most individualised help. This research could be used by teachers to help children solve problems as it shows teachers that their teaching style should be adapted to suit children of different ages. Wood et al.
### Examiner commentary

This candidate explicitly applies the research by Wood to answer how teachers help children problem-solve, rather than merely reporting the study. The study is used accurately and with appropriate detail to support this. Phrases such as ‘it was found that...’ and ‘This research could be used by teachers to...’ helped indicate how the research was used to address the question. The detail was relevant to the question, e.g. scaffolding and problem solving at different age-groups.

<table>
<thead>
<tr>
<th>3 year olds should be kept motivated, as they tended to drift off task (direct maintenance) and should be shown demonstrations. 4 year olds need a more individually tailored style of teaching. So the teacher could get to know the child to find the most appropriate teaching technique.</th>
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Wood et al. (76) used 20 children (equal numbers of 4/5-year-olds and 3, 4/5-year-olds. The study used 21 blocks and allowed the children to play for 5 minutes before tutor intervention occurred. The tutor intervention was in one of 3 categories: ‘direct assistance’, ‘verbal assistance’ or ‘corrector/checker’. The study found that the amount of help needed by children of different ages varied. In 3-year-olds, 10% of ‘constructions’ with the blocks were unassisted. In 4-year-olds, 50% were unassisted. In 5-year-olds, 75% of the constructions were unassisted. This finding shows that children need less help as they grow older to do certain tasks, thus might be used by teachers to ‘help children solve problems’ in raising their awareness of how much help a child might need, i.e., an older child might require less help than a younger child.

Wood et al. (76) also found that different ages of children required different types of tutor intervention in helping them achieve their goal of constructing blocks. 3-year-olds required direct assistance (shaping them constructs) and intrinsic motivation. Thus, a teacher might use the study to learn that in order to help a younger child, her intervention would need to be physical and intrinsically motivating. In 4-year-olds, it was found they required verbal assistance and prods more often. Thus, a teacher would need to inform her most effective teaching method for this age group as being verbal instruction. 5-year-olds required little actual ‘intervention’ & needed...
Examiner commentary

This candidate presented the detail of the study first, then what the findings show, then quoted the question and how the information presented addresses this specifically and finally developed it into a line of reasoning that directly responded to the question posed.
Examiner commentary

This candidates’ response is middle of the second band. Here the student does generally address the question with knowledge of the study, but lacks the precision to call it a detailed response (children under 8 ... with a tutor ... had to build a wooden pyramid). The application comes from suggesting the use of scaffolding which was good in itself, but lacked the detail of application to merit a mark in the top band.
Examiner commentary

This candidate presents very little detail of the study other than very broad statements about what it showed. The attempt to apply the study to the question was somewhat better, but inevitably consisted of broad and limited statements which lacked the substance to back them up.
Question 5(b)

Discuss the nature-nurture debate in relation to research into cognitive development and education.

High level answer – 15 marks

Piaget’s research into cognitive development and education involves stages of cognitive development: sensorimotor stage (0-2), pre-operational (2-7), concrete operational (7-11), and formal operational (11-15). It suggests that the order of these cannot be changed if they’re consecutive occurrences. In this sense, Piaget’s theory supports the nature side of the debate because he’s suggesting that a child’s cognitive development occurs in a series of indispensible stages, and at specific ages. This supports the nature side of the debate in that it suggests cognitive development is universal and occurs the same in every child. He further supports the nature debate by suggesting “functional invariance” that progress cognitive development to a schema assimilation, accommodation, disequilibrium (d equilibrium). In suggesting “functional invariance”, Piaget is further enforcing the idea that one’s cognitive development occurs due to nature—a set of natural, inherent, and universal “invariant” that spur development. However, Piaget did specify that he never wished to put ages on his stages and suggested social pressures led him to do so. Without the ages, the stages are not specifically “natural” as they may develop still chronologically but
at different ages - giving way to environmental stressors (nature) which may affect the rate of cognitive development. Furthermore, Piaget's "functional invariances" suggest nurture too, that there's little/no suggestion these will occur the same amount in every child. Thus, arguably if one child experiences more dis-equilibrium than another, they might learn accommodation faster if their cognitive development might occur quicker due to nurture.

Piaget's suggestions for education include: readiness, discovery learning & maths/science based curriculum. These fall more on the nature side so that they assume all children are naturally better at maths/science & that discovery learning is effective for all.

However, Piaget never wanted a "theory of instruction" for education - suggesting he valued nurture too in each education institute choosing different techniques according to children's needs.

Later, Vygotsky contributed a far more "nurture" theory of cognitive development suggesting we're all social constructivists that interactions are what moves our development on. These are influenced by "cultural tools" which are psychological, physiological & technological. These "tools" are culturally derived (predominantly from languages) & thus give way to the nurture side of the debate in that these cultural tools could change from environment to environment & thus nurture could affect cognitive development.
Examiner commentary

This candidate identifies a precise feature and explains how and why it supports a side of the debate. Specific and explicit support is offered by the candidate, which is then ably developed. The candidate then refers to and builds further support with further development. This is all along a coherent line of argument which develops in itself. A ‘however’ is then considered with a caution quoting Piaget himself. This was further explained with specific reference to Piaget’s theory, use of subject specific terminology which provides for further insight and specific consideration of the point. This was then repeated in consideration of Vygotsky’s assertions as applied to the nature-nurture debate.
My nature refers to our behaviour being as a result of our genes or DNA and the way we are born. Nurture refers to our behaviour being as a result of our environment and those around us.

Research into cognitive development and education is often focused on the nurture side. For example, research by Wood et al. showed children learn a basic method of how children learn via scaffolding. This is nurture due to the fact that children are helped gradually less and less so they are able to solve problems themselves. However, it could be nature as when we are younger, we do not know how to do everything but as we grow we learn more and more by ourselves not through help or our surrounding.

Research into cognitive development and education could be on the nature side. For example, Wood et al.’s research using the scaffolding method found to only help some children and some children already know any help building the primiti.

Suggesting it is nature as they may have been born intelligent and independent therefore not needing help from the tutor. However, it could
Examiner commentary

Most of this candidate's response is taken up with classifying research as nature or nurture, and the analysis often considering if this is so. It is therefore limited in terms of the debate itself, and its relation to cognitive development and education, while recognising that some understanding is clearly demonstrated.
Low level answer – 4 marks

Examiner commentary

For this candidate there is very little creditworthy beyond the bottom band. The relevance of much of the knowledge in the response is dubious. However there is a structure which attempts to present both sides of the debate, which is very limited but provides just enough to access the ‘limited’ band.
Question 5(c)

Carl is a student in the sixth-form. He has been invited to talk to pupils in year 11 (aged 15–16 years) about the best ways to revise for their exams.

What suggestions might a psychologist make to Carl about strategies pupils can use to revise effectively for exams?

Medium level answer – 7 marks

One strategy Carl might suggest for the pupils to use to revise is to use semantic processing. This involves associating concepts with a meaning in order to increase the likelihood of remembering something as it is made more meaningful. Research has shown that this strategy is effective in improving memory of concepts. Another strategy Carl could suggest is auditory mnemonics, in which concepts are associated with rhymes or the first letters of concepts are used to make a simple sentence which is easier to recall and when recalled concepts it represents, students could use key words from the subject to create sentences and then remember these with the sentence to aid recall. Another strategy Carl could suggest is for the students to use visual mnemonics in which concepts are associated with a journey or place that a student spends a lot of time, such as their classroom or journey to school.

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Examiner commentary

This response is a well written answer but it reads more like a textbook than a practicing psychologist. Strategies are well identified with an outline of what each is. A rationale is also given. However, for a better mark the candidate needed to engage directly with the stem. Firstly, there is no indication that this is a sixth former talking to year 11s, the candidate merely presents broad catch-all strategies. Secondly, step-by-step or specific wording, for example, would add to the standard broad strategy suggested. The candidate needed to reflect on what should Carl actually say, do, where, when etc.
Examiner commentary

This candidate suggests scaffolding with a more applied response (although gradually removing the use of a mark scheme is not necessarily good advice). However, a rationale is less apparent. Additionally, the candidate only makes the one suggestion when the question asks for suggestions (plural) so the candidate’s response is inevitably limited.
Using the research by Raine et al. (1997), outline how criminal behaviour could be explained through physiological factors.

High level answer – 10 marks

The aim of the research by Raine et al. was to investigate whether there are brain abnormalities/differences in murderers compared to non-murderers. Raine investigated this using a sample of 42 people convicted of murder, rape or manslaughter and who were pleading not guilty by reason of insanity (Nori). These participants took part in a continuous performance task (CPT) after being injected with a glucose tracer. The CPT involved pressing a button whenever the number ‘zero’ appeared on a computer screen. This task took 32 minutes and frequently provoked pressing.

Participants then undertook a PET scan, which showed activity levels in the brain by detecting glucose levels. It was found that murderers pleading not guilty had different patterns of brain function to the control group of non-murders (whom they were compared against).

Specifically, the results suggested that physiological factors such as differences in brain function, could explain criminal behaviour. One factor was that the murderers were found to have decreased activity in the prefrontal cortex (which acts as...
Examiner commentary

This answer is impressive in that it demonstrates detailed knowledge of the study; the study is explicitly linked to addressing the question specifically (not just broadly); “this suggests that...” leads on to explicit explanation, which references the study back to the question on specific points, not just broadly. Additionally, the candidate demonstrates good knowledge of study details.

Medium level answer – 7 mark
Examiner commentary

This answer provides a broadly accurate response. It is fairly descriptive of the study, not linking to the question until towards the end of the response, where it was done but not with any great detail. There was some detail (e.g. reference to prefrontal cortex) but not as much or as cogently as top band answers.
Low level answer – 2 marks

Examiner commentary

This answer is largely anecdotal with no reference to the study. It gets a basic mark rather than 0 because there is some acknowledgement that the candidate refers to physiological factors in relation to crime (parts of the brain).
Discuss methodological issues involved when researching what makes a criminal.

High level answer – 14 marks

There are a number of methodological issues involved when researching what makes a criminal. For example, it is often difficult to determine cause and effect to establish causal conclusions when researching. Conducting twin studies to investigate genetic explanations of criminality, for example,estone and alpest (1996) whilst twin studies show that there is a relationship between generic similarity, whereby if twins are of one, the twins become a criminal, the likelihood the other twin will become a criminal is higher than in diz twins. There are environmental factors that may explain this relationship. For example, twins are often raised in a very similar environment, they are made to look the same, they are often compared to each other, and share the same and so any environmental difficulties experienced during pregnancy in ways that non diz siblings and diz twins don’t. Therefore it is difficult to establish cause and
Effect on discriminating between the influence of nature and nurture. Ultimately it is an interaction of both but any conclusions from research on either side may not validly.

A further methodological issue is related to the use of self-report research such as that by Asbore and West (1996) involved interviewing mothers on their parenting style, discipline, and child's popularity, intelligence, and behaviors. The mothers of the Cambridge boys may feel embarrassed to report truthfully in such a relationship, therefore any responses may be false. However, the strength of the self-report method is that the conclusions drawn from Asbore and West were high in murder and reasons as the families, the boys being studied, and their teachers were able to directly communicate their attitudes towards the boys' behavior in ways that would not otherwise be possible.

A further methodological issue involved when researching what makes a criminal or ethic's research often considers the use of child participants, for example.
Exemplar Candidate Work

A Level Psychology

Osburn and West studied children aged just 3 until the age of 16. It is important to consider how data can be used in researching the socially sensitive topic of criminality. Labelling a child as likely to be a criminal may lead to the self-fulfilling prophecy. Individual studies in this area question what makes a criminal child. Another study, conducted by Awake, showed that offenders and Osborne and West studied only white boys from Cambridge. Therefore, the results may not be generalizable.

In addition, there are a number of methodological issues when investigating what makes a criminal. And research is often conflicting due to the possible nature nurture positions in the topic, which can lead to low reliability. Ultimately concluding that criminality cannot be environmentally determined or socially sensitive as it raises the question of responsibility.
Examiner commentary

This answer is worded in a straightforward way yet has all the features one would hope to find in a top band answer, and these are made consistently across the range of points. The points are precisely and clearly made, explained and exemplified with specific examples, developed into evaluation and discussion using skilled, logical argument.

Medium level answer – 10 mark

6b

A strength of the methodology used is that it often uses lab experiments with high control in order to see what causes criminal behaviour. For instance, Raine used high control in his lab experiment by keeping the performance task time the same for the criminals and matching participants on gender and health as well as whether they had schizophrenia or epilepsy. This high control meant Raine could isolate extraneous variables to make sure that it was the lower functioning of regions of the brain that causes criminal behaviour. This means most research in this area, due to high control, should be able to identify the cause and effect of criminal behaviour.

However, a weakness is that by using such high control, there is a lack of ecological validity in explaining how results into what makes a criminal can be generalized to real life criminals who has caused their deviant behaviour. For instance, because Raine looks at the response of the brain in the performance task of pressing a button, and suggesting that the lower brain activity levels in the amygdala, prefrontal cortex and perfrontal cortex, he cannot suggest that this is real activity of criminals when they are committing
Examiner commentary

In this response, the first point was presented to a top band level. It identifies that laboratory experiments have high control which trades off with low ecological validity and this is exemplified and commented upon. However the second point (the only other point) stated sample size as the issue, drifted from this point until the end and didn't develop a line of argument.
Low level answer – 4 mark

Examiner commentary

For this response it is doubtful whether the points made are in fact, methodological, although validity for example could be made to be relevant. There is at least an attempt to consider how research into ‘what makes a criminal’ could be limited in an ethnocentric sense, which could be said to be methodological, being a sampling limitation. Towards the end, the candidate’s response drifts from the title. Thus, the response is a little above bottom band i.e. just better than 3/15
Shanaz is a police officer who works with ‘problem families’. Her job is to try and prevent members of these families from engaging in criminal behaviour in the future.

What suggestions might a psychologist make to Shanaz about biological strategies to prevent criminal behaviour in the families she works with?

High level answer – 10 marks

One biological strategy Shanaz could suggest is that the families she works with take  
Omega 3 supplements. This is based on research by Raune who found that taking  
Omega 3 reduced the likelihood of people turning to violence and aggressive crime. Therefore if Shanaz suggests to the families that they take Omega 3 regularly, their aggression may decrease, making them less likely to engage partake in violent crime. Another suggestion is that Shanaz could tell the families to do regular exercise, eat a balanced and nutritious diet. A study found in the Mansfield study which involved giving 100 children a three part intervention involving physical exercise and a good nutrition that the children who received the intervention were much less aggressive than the control group who didn’t receive the intervention. Therefore, if the families do this, they may be less aggressive, preventing violent crime. Another suggestion is that if any of the family members are pregnant, Shanaz could suggest that the mother does not smoke during pregnancy, as this can increase the level of testosterone the baby is
Examiner commentary

This script presents a number of strategies. The nature of these strategies is that they mean specific suggestions are made, not merely broad ideas. (E.g. omega 3 regularly taken, not simple ‘a balanced diet...’ The rationale is clear and explicit and provides clear justification for the specific suggestions made. The suggestions explicitly engage with the stem, constantly referring to Shanaz and what action she should take.

Medium level answer – 6 marks
Examiner commentary

In this answer, the first suggestion is good, some precision, rationale and the candidate engages with the stem. The further suggestions do not refer to Shanaz or the family and are more generic.
Examiner commentary

This answer can be commended in its attempt to engage the stem, but the suggestion is general and not as realistic (e.g. ask a whole family to have brain scans) as diet, exercise or not smoking. It rather threw information at the question rather than providing a structured response. Nonetheless, despite its limitations, it attempted to address the question, albeit in a limited way.
Exemplar Candidate Work

Question 7(a)

Explain how the research by Lord (1994) could be used to improve levels of recycling.

High level answer – 10 marks

Lord (1994) aimed to see whether positively or negatively framed messages had an affect on recycling behaviour. The sample consisted of 120 households collected via quota sampling with the procedure consisting of observations and self-report measures. Behaviour was observed before and after negatively/positively framed advertisement/leaflets/personal letters were sent to participants which was followed by a questionnaire asking for opinions on recycling. Results demonstrated that positively framed messages were most effective with negatively framed personal letters being the most ineffective. It was concluded that positive approaches to encouraging recycling behaviour was the most effective. Levels of recycling could be improved through the use of prompts being put up in the neighbourhood. Lord demonstrated the effectiveness of this method through sending out positively framed advertisements in a community which increased recycling behaviour. Also, positive reinforcement could be used to encourage recycling behaviour. For example, hold and Oregon demonstrated that positively encouraging people is the most effective method to use.
Examiner commentary

This response is a succinct and to-the-point answer which demonstrates that the candidate knows and understands the study, and is conversant with how it informs us about improving recycling. The study details are accurate. There is a clear distinction between positive and negative messages influencing beliefs and behaviours distinctly. The relationship of the study to answering the question is relevant and convincing.

Medium level answer – 6 marks

7a. Lord suggests that the type of message and the form it is in can significantly improve recycling levels. Lord aimed to see whether the effect of the message in the way it was framed, either positively (showing the positive effects of recycling e.g., better environment) or negatively (highlighting the negatives of not recycling e.g., increase in plastics in sea and spoiled environment) and the form it was in (either an advertisement or personal letter). He used a field experiment to manipulate the messages. He conducted baseline measures of recycling rates from nurses and the next day delivered the messages in the different forms. Later he sent a questionnaire to each household. The letter had been delivered to and measured attitudes and beliefs on a 7-point scale, with comparisons also made on the recycling letter after the message from baseline measures. He found that positively framed advertisements increased beliefs about recycling importance, but that only negatively framed personal letters could actually change behaviour using mass recycling seen. This suggests that messages can be used by the media in positive form to increase attitudes towards recycling, while actually increasing behaviour through governments sending negatively framed direct mail.
Examiner commentary

This script shows generally good knowledge of the study and a broad attempt to relate it to the question. Some inaccuracy in that it misses that negatively framed personal messages affected behaviour, but it makes a good link from positive messages in the study being used to improve recycling, so deserved to access to the second band.
Discuss the individual-situational explanations debate in relation to recycling and other conservation behaviours.

High level answer – 12 marks

The individual explanations might suggest that recycling and conservational behaviours are driven by the individual, for instance that perhaps not all are influenced by messages encouraging behaviour that are negative or positive because most people care about the environment than others, hence why there are not 100% recycling rates seen from strategies to encourage recycling like negatively framed advertisements suggesting that there must be an element of personal choice to recycling behaviours.

However, it could be argued that the situation is very careful and field experiments cred in this area can explain how really people would conserve as a response to situational factors. For instance, Bone-Motes showed there were significantly more users of towels by guests who signed the card, making a personal pledge to conserve and wearing a pin to symbolise this dedication, highlighting a cognitive dissonance that occurs as people want to stick to their word, highlighting the power of the situation in how real conservation behaviours can be directed by the situation showing how making a pledge...
to the environment commits people to recycling more than they previously would, with antecedent and contextual strategies, proven to be reinforcing recycling behaviour, can effectively increase recycling behaviour.

However, the idea of the individual-situational debate can be very simplistic, overlooking reducing recycling and conservation behaviour's cause, either from the individual or situation. This can reduce the reliability of these arguments, unless there could be an interactionist approach between the two in influencing conservation behaviour. For instance, hard shows how people are significantly more likely to recycle when presented with negative messages highlighting the influence of the type of message on recycling commitment, but doesn't show why not all advertise to recycle from the positively framed advertisement. For instance, showing individual choice over recycling and conserving. Moreover, the strategies used to positively and negatively reinforce conserving behaviour and antecedent strategies put in place before, indicate such as more recycling facilities, can explain perhaps situationally why mailing people commit to the recycling can increase this behaviour, but cannot explain why not all of the population recycle or respond to messages that do not cause guilt or demand to conserve, highlighting the need for studies to look at how individual factors and situational ones can affect recycling and conserving behaviors.
Examiner commentary

This answer contains a number of arguments presented in the context of a real debate. Points on both sides of the debate are clearly put forward, elucidated upon, exemplified and with specific references. The points follow a logical line of reasoning i.e. a case is clearly made, and the counter arguments considered. The conclusions are debated in a logical and skilled manner.

Medium level answer – 9 marks

The individual/situational debate looks at whether behaviour is affected by the self or through the context that you are in. Below will look at both sides of the debate in relation to recycling behaviour.

The situational side of the debate is demonstrated through the fact that behaviour changes after something is done. For example, Oregon’s study looked at the introduction of the Bottle Bill whereby people were paid for each bottle that was recycled. The statistics demonstrated that recycling behaviours increased after the introduction of this bill. Therefore, this demonstrates that because the situation around them changed, they adapted their behaviour to gain the rewards.

Despite this, there are people in society who recycle without rewards or being prompted to. For example, the Lord study demonstrated a small fraction of people who demonstrated recycling behaviour even before the study took
This script presents a clear identification of the debate, is well located and has good referencing. This is used to make a point about the debate, which follows logically. The debate is presented and consideration given, although this could have been better developed and the discussion better elaborated.
The issue of recycling is a major structure for today’s society. People need to be recycling as land is running out and global animals and fish are being harmed.

Recycling is a situational explanation for people to recycle pull back on demand characteristics, people want to have a good image and if people around you are recycling and talking about all the negatives that come if you don’t recycle it can make people recycle and more stick to the social norm. However, the individual explanation in relation to recycling also applies, if people make the decision to recycle and then you could pass on the messages. If recycling effects you personally, such as wasteland next to your home or you believe in the use of recycling it is down to you on an individual.

The situation explanation best explain recycling. It is the situation and social context of someone’s life that effects whether or not they recycle. If everyone in your neighbour hood or all your friends recycle and you do not you are subject to criticism that makes you start to recycle to conform to demand characteristics.

It is hard to explain recycling in terms of the individual explanations.

The plastic island in the arctic is rapidly growing due to waste being dumped out to sea. If people recycled this would not be happening. The plastic pollutes the water and creates a deadly trap for the living creatures in the sea.

Examiner commentary

This script is largely anecdotal with no specific referencing (not even to Lord, the key study). It does attempt to bring in the individual-situational debate in relation to recycling.
Question 7(c)

Trevor is a teacher in a primary school. The children in the school are aged from 4–11 years. Trevor is responsible for increasing recycling and other conservation behaviours among the children in the school.

What suggestions might a psychologist make to Trevor about techniques for increasing recycling or other conservation behaviours among the children in the school?

High level answer – 10 marks

A psychologist could suggest to Trevor to show the children short snippets of educational films which encourage recycling and conservation behaviours. A positively framed message will be portrayed, and this will help increase conservation behaviours as through Lord's study, positively framed messages help to increase positive attitudes towards recycling. The educational films will be animated and short in order to engage the children's attention as they are quite young (aged 4–11) and will find it more entertaining to take part, and will observe and imitate the behaviour (social learning theory).

Trevor could also try to introduce a token economy system, which uses operant conditioning. Each time a child recycles an item, such as a paper juice box, Trevor could give the child a sticker. Then, after collecting 10 stickers, they could trade it in for a reward. This is a good approach as this increases the level of perceived control the children have over their conservation behaviours, as shown by Azjen's theory, and also...
| helps to increase their positive attitude 
| towards recycling as they now have 
| strengthened conservation behaviour 
| through giving the children a reward. 
| Thus, this school wide campaign would 
| appeal to all the primary school children 
| regardless of whether they are aged 4-11, as they would also be quite 
| influenced by the idea of incentives, 
| such as being given a chocolate bar as a 
| reward. 
| In conclusion, 
| Trevor could be advised to show use 
| social learning theory by positively framed 
| films and token economy to help motivate conservation behaviour in 
| the school. |

**Examiner commentary**

The script puts forward suggestions (plural); with detail of how to apply them; and all directly engaging the stem. They are clearly based on good psychological principles and this is evidenced with some specific references.
Examiner commentary

This script is broadly speaking correct. Two suggestions, the first with better detail of application than the second, with better rationale and better precise application to the stem.
Question 8(a)

Using the research by Zajonc et al. (1969), explain how sporting performance could be influenced by audiences.

Medium level answer – 8 marks

The study by Zajonc et al. (1969) explains how sporting performance can be enhanced by an audience through social facilitation, but equally impaired by an audience through social inhibition. Zajonc also demonstrates how task difficulty can impact on audience effects.

For example, when the task is simple involving low cognitive demand in the runway condition, whereby the coach is simply required to run in a straight line from the start to the finish, then an audience can easily facilitate performance. This is because a sport performance the cognitive demand is low and the skill is dominant; therefore the athlete can perform a skill such as running automatically and so the audience does not distract their attention away from the skill. Zajonc showed that when the cognitive load is high another approach to the runway condition, the performance was greater. This is called the co-active effect.
However, Guyon also demonstrated that when the task is more complex, for example when the cockroach was required to make a run in the maze condura, the effect of an audience can be tangible. When applying this to sport, an athlete must have about the performance task so an audience may serve as a distraction as can running with another athlete (or cockroach): this leads to Baron's conflict theory which explores why demonstrations the conflicting demand for attention of the task and the audience. The cockroaches in the maze condura performed better as an audience. Guyon uses this to support his dual theory of arousal anxiety and a simple task as an increase in arousal due to the presence of an audience will enhance performance, but in a complex task, such as the maze, the athletes (or cockroach can become stressed by arousal). A, perturbation referred to as the championship zone. Thus the research by Guyon supports the drive theory and shows an effect of an
Examiner commentary

This script explicitly relates the findings to sporting performance throughout. It follows on from its statements to explain sporting performance. It addresses the question directly although more detail could help develop the link into a better line of reasoning. Towards the end, the answer drifts into material which is at best of peripheral relevance to the question asked.

Medium level answer – 7 marks

Zajonc used 72 adult cockroaches in his first study. He made them do a simple runway task or a more complex running through a maze. They were either by themselves, with another cockroach, or had an audience of 1000. They also had a bright light shine on them. The DV was the time taken to start and the time taken to complete the task. Cockroaches were faster. This suggests that if someone is good at a task or it is simple, having an audience will only encourage them to do better and therefore performance.
Examiner commentary

This script has explicit links from cockroach runs to sport, reporting after the studies that "this suggests that..." followed by a simple qualifying statement. It is therefore accurate but limited in detail.

Low level answer – 3 marks

improves. However, when the cockroaches did the complex maze task, their speed to complete it decreased when there was an audience. This suggests that if an individual is worse at a sport, it is harder, having an audience will hinder their performance. This may be due to fear of embarrassment and high anxiety.
Examiner commentary

This script shows really good knowledge of the study but sadly fails to move from cockroaches to sporting performance, which is what the question asks. A couple of phrases could ambiguously allude to sporting performance, which is why this has been given a mark just into the third band.
Question 8(b)

Discuss the validity of research into audience effects.

High level answer – 15 marks

Validity is the extent to which something measured what it intended to measure.

Research into audience effects is high in internal validity as it can easily be measured in a lab setting which has high controls so can establish cause and effect. For example, in Zajonc's study they conducted research into audience effect on sporting performance on cockroaches. This was done in a lab setting so it was a highly controlled environment such as the maze being the same for all cockroaches, and being in darkness for the same amount of time previously to control their previous environment. These high controls mean that cause and effect can be established due to the lack of confounding variables.
8 b. So researchers can easily establish that it is the presence of an audience that causes the increase or decrease in sporting performance depending on task difficulty. This is a strength as it provides practical application makes research useful due to adding to theoretical understanding of what hinders sporting performance.

However, research into audience effects may lack external validity due to controlled settings and samples.

One reason for this is due to the lack of population validity in Zajonc's study. This was carried out on cockroaches, which are unsimilar to humans. The cognitive function of cockroaches is very simplistic compared to humans so what affects their sporting performance may be very different to a human. This is a weakness as it can make results ungeneralisable to the general population.

Another reason for lack of external validity is that the high controls of a lab setting reduce ecological validity and
Exemplar Candidate Work

Zajonc's study on cockroaches was in a small box with controls such as lighting, but in real life, it is not like this. In a real sporting situation there would be many factors influencing the performance of the individual such as high cognitive anxiety due to the pressure placed on them to win a competition. In Zajonc's study this was not reflected, so he concluded that the effect of an audience for a complex task hinders performance. This is a weakness as it doesn't take into account other variables, such as the importance of the sport task to the individual, making research into sport lack ecological validity and reductionist as it oversimplifies performance to simply audience presence.

Overall, research into audience effects has valid elements such as high control, but overall it falls down in its generalisability to other individuals and situations.
Examiner commentary

This response was a coherent and cogent coverage of points within a clear structure. The candidate clearly located the points being made in context. The ideas were developed or linked expressly. There was a developed line of reasoning. All these strengths were consistent and repeated throughout the response. The answer was well expressed using key psychology terms and phrased appropriately to the subject-specific rhetoric.

Medium level answer – 10 marks

8 b. The validity into the research of audience affects by Zajonc et al is fairly low. The reason why I feel it is low is due to the study having low ecological validity which means how relatable and representative is the study to real life behaviour, is because Zajonc used cockroaches as his sample which aren't relatable and therefore can't be generalised to the behaviour humans would show. So the research by Zajonc therefore doesn't show us how humans would perform in the easy and hard tasks with or without an audience.

However Zajonc et al study does have high face validity this is because the study measures what it claims to measure. In the study Zajonc is measuring the effects of audience has on performance in both easy and hard tasks which is what Zajonc claims to
Examiner commentary

This response has three points clearly made and located in context. Evaluation points were made and well stated but could have been more precise e.g. because they were cockroaches they couldn't be generalised to humans, but the candidate does not discuss why not (or indeed why they could). So three correct points well presented, reasonable but not skilful use of examples. The arguments are competent rather than highly skilled.
Low level answer – 7 marks

Examiner commentary

This script makes three statements about validity which means it is relevant but limited. Interpretation and argument are limited, and conclusions tend to summarise rather than be part of effective arguments. Evidence, too, is rather limited.
Lizzie is a football player. She is about to play a football match in front of a large crowd for the first time.

What advice might a sports psychologist give Lizzie about how to prepare for this match?

High level answer – 10 marks

Lizzie should advise - a sport psychologist might advise Lizzie to undertake biofeedback. This will enable Lizzie to manage her arousal which will inevitably be increased by the presence of a large crowd as it places pressure on Lizzie to perform her football skills well to keep the audience on side. This may involve using electrodes placed that the sport psychologist places on Lizzie’s hands to measure galvanic skin response (GSR) and warning - a psychometric response to increased anxiety. The psychologist can then advise Lizzie on relaxation techniques such as deep muscle relaxation, deep diaphragmatic breathing techniques and mindful meditation, in order to reduce her anxiety. Lizzie will usually see her anxiety reduce on the equipment when going to play the football match. Lizzie will then be able to...
optimise her arousal so that it doesn’t have a catastrophic impact on her performance or lead to hypnosis. Moreover, the sport psychologist might encourage Ripple to use imagery, such as MG-M, images, shown to be effective with football players by Munroe-Chandler, to improve self-efficacy and confidence. Ripple should imagine herself scoring a goal, run through techniques such as tackling or taking a corner, in her head so that when she faces the large audience, she will be mentally prepared and be optimistic about her performance. The task will be more done and automatic so she is less likely to experience the anxiety proposed by Baron. Having a greater self-confidence can enable Ripple to use the audience to facilitate her performance instead of inhibiting her.
Examiner commentary
This candidate has good attention to detail and is realistic about application. They don’t merely propose biofeedback and say what this is; rather they talk of electrodes providing readings, using the readings to make the athlete aware, developing in breathing techniques to respond to readings etc. There is explicit and repeated links to the stem - Lizzie and the football match. The rationale is clear, direct and well explained.

Medium level answer – 8 marks

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<td>A sport psychologist may advice Lizzie to use <strong>imagery</strong> to prepare for the match. This is when an individual imagines succeeding in a scenario in the sport. For example, Lizzie may imagine scoring a goal and the crowd cheering for her. This will give her the confidence that she will succeed in her sporting performance and reduce anxiety about the large audience. Also, Lizzie could physically practice scoring goals repeatedly. This is because Zajonc found that for an easy task, audience presence improved performance. Therefore, if Lizzie continuously practices scoring goals in football, it will soon become an easy task for her, and the presence of an audience will only help her as her sporting ability comes naturally. This is a strength of practice</td>
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Examiner commentary

This makes good suggestions linked to the stem and backs them up. The suggestions needed to be more specific in their application such as when suggesting imagery and mental practice, or scoring goals in practice, stating exactly what they should do, where or how etc.

Low level answer – 5 marks

Advice that a sports psychologist may give to Lizzie on how to prepare for this match is playing a home game may have an advantage for Lizzie. Knowing the pitch and having a bigger supportive audience can positively affect her performance as she knows the audience are supporting her and that she can successfully win.

Another piece of advice is to picture herself winning the game. This can help Lizzie to prepare for her game as she will think positively and be able to.

Another advice that a sports psychologist may give is to reinforce the idea that the team is all working towards a common
This candidate provides broad and at times not so realistic advice – “get therapy, play at home, even create a mental picture of winning” but nothing specific. Some rationale is presented later on. So limited, but broadly acceptable suggestions.
The small print

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