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Examiners' Report  
June 2017

GCE Psychology 9PS0 01

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## Introduction

The examination structure provided a range of question types over five sections, with the final extended responses requiring candidates to address issues and debates. Many candidates demonstrated good psychological knowledge and understanding in this examination, and centres have clearly covered the required content in sufficient depth, which has benefitted candidates. Candidates have worked hard throughout this paper, with many candidates making attempts at all questions, which was very positive to see.

Centres are directed to remind candidates to write within the spaces provided on the exam paper and where this is not sufficient, to use additional paper rather than drawing arrows between questions and white space, or using blank pages within the exam paper.

Strengths were seen in the understanding of ethical issues in terms of the candidates understanding of Milgram and some further evidence of ethical or unethical studies in social psychology, however the underpinning knowledge of the ethical code of conduct and requirements themselves was not as strong.

There is a general area for improvements in the candidate skills of application to the scenarios for the AO2 questions, where candidates are often giving generic responses that are not applied to the context, for example failing to make the link between an observational method and the scenario of the supermarket in question 13.

There is an indication that some candidates appeared unaware of the differences in the taxonomy of questions, and did not differentiate their responses to answer the question being asked. For example, when giving a comparison, candidates are required to give at least one similarity **and** one difference. Centres are directed to the taxonomy command words within the specification that give indications of the expectations for the question types for candidates.

Candidate responses to the key question were often limited. Most candidates seemed to be aware of their key question for society, but struggled to make the links between the key question, theory/ concept/ research and relevance to society. Centres are directed to the support materials available online which explore the various question types for key questions in the examination.

The remainder of this Examiner Report will focus on each individual question and specific examples with the aim of highlighting areas of good practice and some common errors which can be used to help prepare candidates for future 9PS0/01 examinations.

## Question 1 (a)

This was an AO2 question where credit is given for the identification of the sampling technique used and many candidates achieved well here, giving the correct response of opportunity sampling.

## Question 1 (b)-(c)

### Question 1b

This was an AO2 question where credit was awarded for either a full or partial hypothesis in relation to the scenario. In this question, many candidates achieved full marks, and where they did not achieve this they usually failed to operationalise the instruction 'to pick up litter'.

### Question 1c

This was an AO2 and AO3 question and therefore points made by candidates were required to be applied to the scenario of Adam and Lauren and therefore the improvement to the procedure should be clearly linked to the scenario. Some candidates suggested changing the research methodology from a questionnaire to an experiment. This was not creditable as it is not an improvement, it is a change in method. Many candidates achieved well here, giving an improvement for the AO2 mark, although at times the justification for how or why this is an improvement was limited or under developed and did not always achieve the second mark.

(b) State a fully operationalised directional (one-tailed) hypothesis for Adam and Lauren's study.

(2)

More female students would follow teacher's instructions over males.

(c) Explain **one** improvement that could be made to the procedure of Adam and Lauren's research.

(2)

One improvement that could be made is a larger sample size then it would make it more reliable & valid.



**ResultsPlus**  
Examiner Comments

Question 1b

This candidate achieved 1 mark for a partially operationalised hypothesis.

Question 1c

This candidate achieved 0 marks as the response is generic.

## Question 2

This was an AO2 question and therefore points made by candidates must be applied to the scenario of the students at the school as is indicated by the question. Centres could remind candidates that in application questions generic answers score 0 marks. Many candidates gave good applications which usually included references to the sports teams and the league and cup matches. Some candidates confused realistic conflict theory with social identity theory in this question.

- 2 The teachers at two local schools, Seaside High and Elk Manor Academy, are concerned about the hostile attitudes students hold towards one another. This has been demonstrated in recent weeks at league and cup hockey matches, where students have often shouted insults at each other.

Using your knowledge of realistic conflict theory, explain why there are problems between the students.

(4)

Realistic conflict theory states that when there is competition over limited resources, such as winning a hockey match, hostility and prejudice will arise. It also states that the more finite the resource, the higher the hostility level. For example, with cup hockey matches in particular there has to be a winner and a loser, whereas with league matches both teams can draw and this works as a compromise. The more scarce the resource, the higher the prejudice. For example, winning <sup>a cup</sup> ~~the league~~ is a rare thing to happen, therefore there is likely to be more insults shouted at a cup final than in a regular league match.



**ResultsPlus**  
Examiner Comments

This candidate achieved 3 marks.



**ResultsPlus**

**Examiner Tip**

The candidate has applied their knowledge of the theory to the stimulus material well, demonstrating how realistic conflict theory can explain the problems between the students.

### Question 3

This was an evaluate question that requires an equal emphasis between knowledge/ understanding and evaluation/ conclusion in the answer. Candidates could demonstrate knowledge and understanding of ethical issues and give examples from social psychology, although this was usually limited just to Milgram and as such was often unbalanced towards social psychology being wholly unethical. The depth of understanding of ethical issues was sometimes limited, with focus usually being just consent and deception. Evaluation skills were strong in a number of answers seen, but many candidates gave responses that were underdeveloped here and often did not go beyond underdeveloped ethical statements about one or two pieces of research, not linking their argument to the question.

3 Evaluate the ethical considerations of research within social psychology.

(8)

Deception is used with psychological research in order to hide the true aim of the study from participants. Milgram used deception in his original research by telling voluntary participants that the study was about learning words by punishment. Burger also used to breach this ethical guideline when replicating Milgram's research in his 2009 study. Deception means that the fully informed consent gained from participants is not valid as they did not consent to the true aim of study. However, Milgram had to use deception in order to avoid demand characteristics, as this would have made his study less valid since behaviour displayed would have been artificial.

Affirmation occurred in both Sherif's Robbers Cave study where 22, 11 year old boys were purposefully encouraged to become hostile to each other. Physical fights were allowed to break out breaching ethical guidelines

of preventing physical & psychological. However it can be considered that the benefits of Sherif's research outweighs the harm caused to the boys. Furthermore, at the time and modern ethical guidelines had not been introduced and so it would be unfair to judge the study by today's standards. ~~Milgram also used~~ psychological harm also occurred within Milgram's research and large stress was put onto participant by administering verbal shocks.

However in Burger's study this harm was reduced by limiting shock to 150V (as in Milgram variations) and a two-step screening process was introduced to remove sensitive stress sensitive participants.

In conclusion, deception was used in Milgram and Burger's study to prevent demand characteristics, and the ~~use of~~ harm was caused in Sherif Robbers cave study, Milgram and in form of psych physical fights and pressure of administering shocks (respectively). However, harm could be argued to ~~be~~ be necessary to produce benefits of research.

~~In conclusion~~





## ResultsPlus

### Examiner Comments

This candidate achieved Level 3, 5 marks.  
They demonstrate accurate knowledge and understanding of ethical issues within social psychology and present an argument that has been developed using mostly coherent chains of reasoning and leads to conclusions being presented.



## ResultsPlus

### Examiner Tip

To achieve higher marks, the candidate could demonstrate a more thorough understanding of ethical issues and develop these further with justifications and exemplifications from social psychological research to give a more coherent and balanced response.

## Question 4

This was an AO1 question and required candidates to demonstrate their knowledge and understanding of the multi-store model of memory. This was generally very well answered, and centres should commend candidates on their understanding of this model of memory.

### SECTION B: COGNITIVE PSYCHOLOGY

4 There are many models used within psychology to explain how memory works.

Describe the multi-store model of memory.

(4)

The multi-store model of memory consists of 3 departments: sensory memory, short term memory (STM) and long term memory (LTM). Information enters the sensory memory (smell, touch etc) and remains there for 2 seconds. If paid attention to, this information will move to the STM, where it can ~~be~~ stored <sup>(Miller magic  $7 \pm 2$ )</sup> 5-8 items for a max. of 30 seconds.

This information is maintained through rehearsal, however may be displaced if not encoded, just as information can decay in the sensory memory if not paid attention to. ~~It can then~~ The information can then be encoded into LTM which is unlimited and so can store an unlimited amount of information for an unlimited amount of time; however Brady (2008) suggests that memory deteriorates over time as so much is learned. For example, if an individual was to attend a primary school reunion then may have forgotten some ~~names~~ (Total for Question 4 = 4 marks)

names due to the amount  
they have learnt over time.



**ResultsPlus**

**Examiner Comments**

This candidate has achieved 4 marks for their description of the multi-store model of memory.



**ResultsPlus**

**Examiner Tip**

This response demonstrates very good understanding, making more than four credit worthy points. It may benefit candidates with their timing in the exam to draw on the marks awarded to help guide the depth of their answers.

### **Question 5 (a)**

This question was assessing AO2 mathematical skills of calculating the range. Most candidates achieved well here, with very few candidates failing to achieve marks on this question. Where they did, it appeared to be a calculation error or misunderstanding of the range, such as calculating the mean score.

### **Question 5 (b)**

This question was assessing AO2 mathematical skills in calculating the standard deviation, including credit for the steps taken. Many candidates achieved well on this question. Where errors were evident it was often in the step of squaring at the very start, or not using  $n-1$  to complete the final steps. Candidates should be commended on how well they were able to demonstrate their skills here.

## Question 6

This was an assess question that requires an equal emphasis between knowledge/ understanding and assessment/ conclusion in the answer. Candidates could demonstrate knowledge and understanding of the experimental method and how it has been used within cognitive psychology. This should be developed to assess the usefulness of this as a method when researching cognitive psychology. Assessment skills were not strong in this question, and many candidates gave responses that were underdeveloped here and often did not assess the usefulness of the methodology, rather they tended to give a strength and weakness of a specified study, usually Baddeley (1966b). Some candidates gave generic points about laboratory experiments without links to cognitive psychology, which missed the point of the question.

- 6 Experiments within psychology, such as that carried out by Baddeley (1966b), have aided our understanding of cognitive functions.

Assess the usefulness of using experiments within cognitive psychology.

(8)

Laboratory

Experiments are very useful in cognitive psychology. This is because it enables high internal validity with the cognitive studies conducted. For example Baddeley using a laboratory experiment to investigate the effect of acoustic and semantic on learning and recall. As it was conducted in a laboratory setting Baddeley was able to control possible extraneous variables that would have affected the outcome of his study. For example if there were <sup>external</sup> people around the participants when they were trying to recall the words, their focus would have been lost hence the independent variable wouldn't be tested and low ~~for~~ recall in a condition could have due to lost focus. Therefore laboratory experiments enable research conducted by cognitive ~~psychology~~ researchers such as Baddeley to conclude cause and effect due to the tight control of extraneous variables.

Experiments allow.

On the other hand laboratory experiments could be considered not useful to some extent. This is because it takes the naturalness out of the situation they are trying to obtain conclusions about. For example in ~~Baddeley's~~ study he has metacology ~~and he criticised for his experimental design~~ for example, Baddeley's study's findings may not be applicable to how memory works in real life as when people list of words there are usually distractions around them and they are not expected to use rehearsal in such a controlled manner. Therefore laboratory studies including Baddeley's lack ecological validity which make the experiments useless as the findings of these studies are more difficult to generalise to real life behaviour and how memory works example. Therefore perhaps more field experiments need to take place in cognitive psychology to see how memory works in a natural environment. However ~~the~~ the use of field experiments to investigate cognitive functions such as memory in brain damaged patients such as Scoville's study of amnesiac patients could be arguably better and more useful to be conducted in a laboratory setting. ~~Therefore~~ Furthermore field experiments may not be useful due to lack

of consent gained as participants are unaware that ~~their~~ behaviour is being recorded however for brain damaged patients such as HM informed consent would need to be gained and they would have to be aware their behaviour is being observed or tested in laboratory settings being more useful.

(Total for Question 6 = 8 marks)



**ResultsPlus**

**Examiner Comments**

This candidate has achieved level 2, 4 marks.

The response demonstrates mostly accurate knowledge and understanding of experiments within cognitive psychology, and the candidate has produced some statements that are relevant, although these do not always assess the usefulness of experiments in cognitive psychology, resulting in a mostly superficial assessment.

## Question 7

This was an AO1 question where candidates are expected to describe how recreational drugs can change the operation of neurotransmitters. Many candidates could give descriptions of euphoria effects/ reward pathways or dysphoria effects/ down-regulation of neurotransmitter. The candidates did not have to give a specific drug as an example here, although many did, often citing examples of cocaine, amphetamines and PCP very accurately. Where a specific drug was used, some candidates could not always accurately describe what this drug did to neurotransmitter operation, particularly with nicotine and alcohol. Some candidates missed the operation of neurotransmitters in the question and described how a drug changes a person's behaviour, for example may struggle to maintain their balance or motor co-ordination.

### SECTION C: BIOLOGICAL PSYCHOLOGY

- 7 Describe how recreational drugs change the way neurotransmitters operate within the brain.

(2)

Most recreational drugs are psychoactive, which means that they activate 'reward pathways' in the brain, which make us feel feelings of pleasure. They often work on the dopaminergic system, boosting our dopamine levels when we take them. In response, the brain naturally ~~create~~ produces less dopamine. Once the drug wears off, we are left with lower dopamine levels which can leave us ~~with~~ with very unpleasant feelings. Therefore we may take the drug again in order to boost dopamine levels again. This cycle can lead to change in the way the brain operates, causing addiction.



**ResultsPlus**  
Examiner Comments

This candidate has achieved 2 marks for describing how recreational drugs can change the operation of neurotransmitters.



### Question 8 (a) and (b)

#### Question 8a

This question was assessing AO2 mathematical skills in drawing and labelling a scatter diagram. Candidates usually achieved well in this question. Where candidates did not gain full marks, it was often as a result of inaccuracies in the title, for example referring to a difference, or failing to label the axes.

#### Question 8b

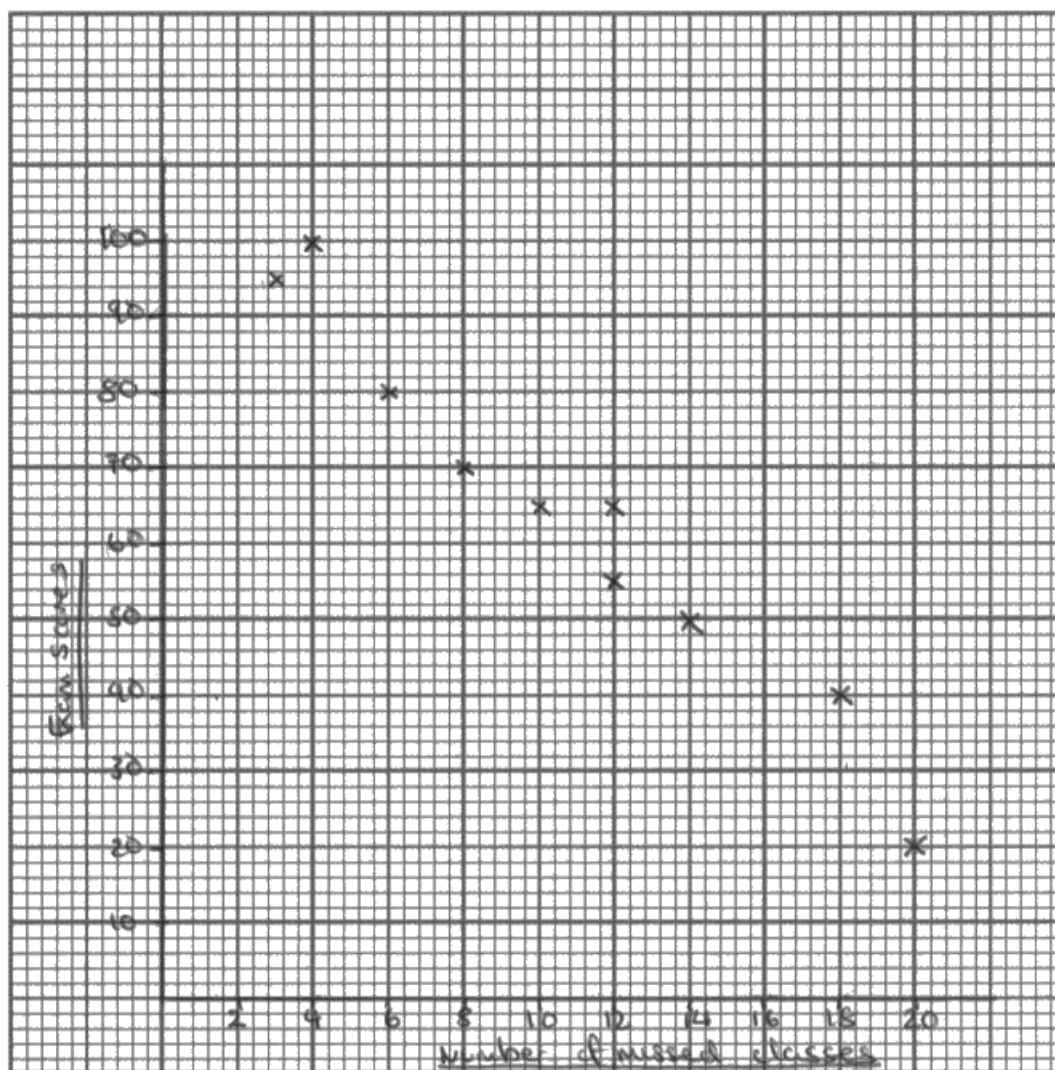
This question was assessing the AO2 mathematical skill of interpreting a scatter diagram. Candidates had to interpret the diagram they had drawn in question 8a. Most candidates achieved well here, being able to identify the type of correlation shown in their diagram.

(a) Draw a scatter diagram to show Nadiya and Tamal's data.

(3)

Title

Graph showing correlation between the number of missed classes by students and exam scores



(b) Identify the type of correlation displayed in the diagram you have drawn.

(1)

A decrease in the number of classes missed correlates (results in) with a decrease in the exam scores.



**ResultsPlus**

**Examiner Comments**

This candidate achieved 3 marks for their scatter diagram in 8a, but did not achieve a mark for 8b as they have given an interpretation of the graph rather than identifying the type of correlation.

### Question 8 (c)

Nadiya and Tamal used Spearman's rho to analyse their data.

(c) State **two** reasons why they used Spearman's rho.

(2)

1. Nadiya and Tamal Ranked their data which is ordinal data for ~~smear~~ Spearman
2. They were looking for a relationship between variables.



**ResultsPlus**

**Examiner Comments**

This candidate achieved 2 marks for giving two reasons for using a Spearman's rho.

## Question 9

This was an AO2 question and requires candidates to apply their understanding of biological and psychodynamic explanations of behaviour to aggression. For a compare taxonomy question, there **must** be one similarity **and** one difference to achieve full marks. Candidates who give two similarities or two differences can only achieve one mark.

Candidates are usually describing how the ID/ Ego/ Superego or Thanatos link to aggression, then describing how testosterone/ MAOA or brain abnormality link to aggression. They do not give these as comparisons, rather they present two stand alone descriptions without stating whether this is a similarity or difference. Where candidates have given responses in this format, credit has been given.

9 Compare the biological explanation of aggression with Freud's psychodynamic explanation of aggression.

(2)

There is more evidence to support the biological explanation of aggression than there is to support Freud. This is because biological factors such as hormone levels and brain structure can be measured objectively; for example by using brain scans whereas the id, ego and superego are not physical or observable so cannot be researched easily. This is a difference. However a similarity is that they are both on the nature side of the debate as the biological explanation looks at innate and inherited factors that you're born with. And Freud looks at personality that you're born with. However both acknowledge that nurture can affect you. For example, brain injuries can make you more likely to be aggressive and environment can affect how your id, ego and superego develops.

(Total for Question 9 = 2 marks)



**ResultsPlus**  
**Examiner Comments**

This candidate has achieved 2 marks for giving a similarity and a difference.



**ResultsPlus**  
**Examiner Tip**

Candidates should use the mark allocation to help guide them in the amount of content to write in an answer. This candidate has provided very good understanding but may have spent longer on this question than required.

## Question 10

This was an evaluate question that requires an equal emphasis between knowledge/ understanding and evaluation/ conclusion in the answer. Candidates should demonstrate knowledge and understanding of the twin study they had chosen and evaluate the specific elements of the twin study selected. There were some strong evaluations of the study in a number of answers seen, but many candidates gave responses that consisted of generic points, for example references to generalisability, which demonstrated limited understanding of the study and underdeveloped links between their evaluative points and how or why this made their chosen study strong or weak. Some candidates evaluated the methodology of a twin study, rather than an actual twin study.

**10** Twin studies are used as a research method to investigate human behaviour in biological psychology.

Evaluate **one** twin study you have covered in biological psychology.

(8)

Brendgen et al conducted a twin study where <sup>they</sup> ~~she~~ wanted to investigate whether social and physical aggression is inherited <sup>i.e. nature</sup> or a result of the environment i.e. nurture. They recruited 234 twins from the Quebec Newborn Twin Study (QNTS) who were all 6 years old. They gathered peer ~~ratings of aggression~~ and teacher ratings of the twins by giving the teachers a questionnaire with a Likert scale and giving peers booklets. These booklets required peers to circle statements that corresponded <sup>with</sup> ~~with~~ each twin ~~eg. This child gets~~ regarding both social and physical aggression eg. This child gets a lot of fights and This child tells other children not to play with certain children. The ratings from both peers and teachers were combined. They found that physical aggression is a result of genetics while social aggression is a result of nurture i.e. the environment.

A strength of the study is that it has application. This is because it can be applied to a real-world context. For example, if it is found that social aggression is caused by environmental factors then preventative measures can be put in place for children to avoid such situations eg. avoiding situations where children are prone to witness swearing. This suggests that therefore suggests that the experiment has practical utility.

However, a weakness of the study is that it lacks generalisability. This is because

The sample is limited. For example, they only used 234 twins in the study. This suggests that the sample is not representative of the population and therefore, results cannot be generalised to the population. Thus, the results are of limited use.

Furthermore, the experiment is not ethical. This is because it involves the twins torturing each other. This could cause conflict between peers as it could be upsetting for some of them. This suggests that the study may potentially damage peer relationships and therefore shows that it is unethical.

In conclusion, the experiment is useful because it can be applied to real-life contexts which can benefit society. However, the usefulness of the experiment is limited because it does not account for the rest of the population and it is not an ethical experiment.



**ResultsPlus**  
Examiner Comments

This candidate achieved level 3, 5 marks.  
The response demonstrates accurate knowledge and understanding, with mostly coherent chains of reasoning. However, the development of the evaluation and thoroughness of the underpinning knowledge and understanding could be improved.

## Question 11

This was an AO1 knowledge and understanding question that required candidates to define the key terms of 'unconditioned response' and 'extinction'. Most candidates were able to define 'unconditioned response' and some candidates were able to define 'extinction'.

### SECTION D: LEARNING THEORIES

11 Classical conditioning uses many terms to explain the acquisition of behaviour.

Define the terms 'unconditioned response (UCR)' and 'extinction'.

(2)

Unconditioned response (UCR)

A <sup>natural</sup> response elicited after someone has been exposed to an unconditioned stimulus e.g. dogs salivating when presented with food.

Extinction

When the pairing of an unconditioned stimulus with a neutral stimulus to elicit a conditioned response is no longer effective and the conditioned stimulus no longer produces a conditioned response.



**ResultsPlus**  
Examiner Comments

This candidate has achieved 2 marks for giving two good definitions.



## Question 12

This question assessed the candidate's ability to explain practical issues in animal research. Many candidates were able to give understanding of a practical issue, but fewer candidates could exemplify or justify how or why this was an issue. Candidates who achieved less well gave generic points which were not specific to animal research or gave ethical issues.

**12** There are many pieces of research that have used animals within psychology.

Explain the practical issues of using animals in psychological research.

(4)

- small animals such as rats ~~have short~~ ~~gesta~~ reproduce very quickly meaning that large samples can be bred and used.
- Animals are also naive to the aim of the study meaning that demand characteristics won't be shown, increasing the ~~street~~ validity.
- Animals can also be caged and controlled in ways that humans cannot, making it easier to isolate variables and prevent extraneous variables. This also increases validity.



**ResultsPlus**  
Examiner Comments

This candidate has achieved 4 marks.  
They have given two practical issues that have been clearly exemplified in order to explain how each is an issue in research with animals.

### Question 13

Candidates were required to design an observation applied to the scenario of a supermarket observation about helping behaviour, demonstrating AO2 application skills. Some candidates were able to give an appropriate response which was fully applied to the scenario here, however a number of candidates gave generic descriptions of observations and did not fully address the question. There were some misconceptions evident where candidates muddled overt and covert and also participant and non-participant observations. Candidates should be reminded that where the question refers them to the scenario they should draw on their knowledge and understanding and apply this to the material given for AO2 content.

- 13** You and a friend are undertaking an observation to see how many people in a supermarket help you to reach something on the top shelf.

Describe how you would carry out the observation in the supermarket.

<sup>(3)</sup>  
~~One~~ <sup>My</sup> friend would stand at the end of an aisle, covertly, observing ~~the other~~ me as I ask passers by to help me reach for items on the top shelf. I will be in the participant observation. My friend will keep a tally of how many people try to assist me and a tally for those who don't. ~~There would~~ There would be no need to debrief our participants as they are ~~anonymous~~ anonymous and the supermarket is a public space, and the task is an expected task in such an environment. (Total for Question 13 = 3 marks)



**ResultsPlus**  
Examiner Comments

This candidate has achieved 3 marks.  
The response describes how the observation could be carried out and it has been applied to the scenario throughout.

## Question 14

This was a discuss question that required candidates to demonstrate an equal emphasis between knowledge and understanding and application in their answer about the key question for society they have studied in learning theories. Candidates were required to show knowledge and understanding of their key question of relevance to society and/or individuals and link their points to appropriate theories, concepts and/or research from learning theories. Many candidates have done well in this response, those who did not achieve as highly often described their key question with limited discussion of the theoretical points or concepts from psychology. A few described explanations or studies without a link to the key question itself. Better responses were seen in relation to eating disorders and media violence, with responses in relation to airlines treating the fear of flying often demonstrating over reliance on Capafóns with little development as a key question.

**14** Learning theories have been used to explain key questions of relevance to today's society.

Discuss the key question for society you have studied using concepts, theories and/or research from learning theories.

(8)

Key question

Should violent video games be banned?

On March 17<sup>th</sup> 2016, it was reported that a man had beaten his baby girl to death with an xbox controller. The ~~man's~~ man's defence team claimed this was as a result of his obsession with the warfare game 'Destiny', and that he was not responsible for his actions. This ~~is~~ can be supported by the concepts of social learning theory; the social learning theory states behaviour must be ~~attent~~ attended, retained, reproduced and occur because of motivation. When applied, the man may have observed the aggressive behaviour of the warfare characters and attended it. He then stored this information (retaining it) and reproduced the aggressive behaviour. He may have

been motivated to repeat the aggression as he observes the characters receive rewards for displaying aggression.

Bastian (2012) found that <sup>self-reported</sup> humaneness scores decreased when a person was playing a violent videogame (Mortal Kombat). This could mean that people who play violent videogames more often are less humane and therefore act less humanely, leading to the proposal that violent videogames should be banned.

Violent videogames actions can be reproduced by their players, this could be because of <sup>operant conditioning's</sup> vicarious reinforcement. A person plays the game and gets a feeling of pleasure, leading to the behaviour being repeated and videogames to be played more often. This can progress into reproducing the aggressive behaviours observed to get the feelings of pleasure, which can result in violence

⊛ However, the theories ignore ~~biological~~ biological factors that can account for reproducing violence. From the evaluation of the theories, society should ban violent videogames.

⊛ Also if a person observes a role model playing a

violent videogame, they are more likely to repeat the behaviour. This is supported by Bandura's (1961) Bobo doll study, in which children imitated a role model's aggressive actions towards the bobo dolls.



**ResultsPlus**

**Examiner Comments**

This candidate achieved level 2, 4 marks.

The response demonstrates mostly accurate knowledge and understanding of the key question for society. The discussion of this key question is partially developed with occasional support through the application of concepts, theories and/ or research from learning theories as appropriate, although this is not always well linked to whether violent video games should be banned.

## Question 15

This was an assess question drawing on the issues and debates concept or reductionism. Candidate responses required an equal emphasis between knowledge/ understanding and assessment/ conclusion in the answer. Many candidates did not always give strong content here, and often responses did not demonstrate an understanding of reductionism beyond the notion of simplifying memory. Some candidates struggled to demonstrate an understanding of elements, whether theory or methodology, in cognitive psychology that are or are not considered reductionist and this often meant their assessment was underdeveloped and limited. A number of responses were unbalanced, claiming cognitive psychology is reductionist without drawing on any arguments against this.

### SECTION E: ISSUES AND DEBATES

15 Cognitive psychology is about the role of cognition/cognitive processes in human behaviour.

Assess whether cognitive psychology is reductionist.

(8)

Baddeley + Miller  
P1 - B: Laboratory THEORIES  
MSM + WM - separate store

P2 - ~~recognition~~ recall

Cognitive psychology is fairly reductionist. The Multi store model (MSM) of memory states that there are three

unitary stores to memory, sensory memory, short term memory (STM) and long term memory (LTM). This approach is reductionist as it doesn't consider the context of

among the situation the memory was formed

just that memory travels through sensory memory to STM to the LTM. This allows scientific evidence to be found

such as Peterson and Peterson found that when participants done an interference task for ~~18~~ 18 seconds, only 10% of participants could accurately recall the trigrams.

However the MSM of memory doesn't explain how we form some memories without rehearsing info. therefore despite

despite being reductionist it can be said to lack credibility.

Cognitive isn't always 'reductionist'. Bartlett's reconstruction theory states memory is subjective and is affected by our own experiences and expectations. This is a more holistic approach as the context of the memory is considered and looks at a person's experience. Although it can be criticised for believing memory is too subjective. Therefore some cognitive theories are 'reductionist', others are not.

Cognitive psychology often uses lab research to investigate memory. This is ~~reductionist~~. For example, E. Scoville's research into the effects of brain damage and memory was in a lab, labs are highly controlled environments allowing researchers to isolate variables, making it 'reductionist' as they can focus on one aspect of memory rather than looking at it holistically. However, cognitive psychologists often use case studies of brain damaged participants such as Clive Wearing. Case studies are a more holistic type of ~~case~~ research method <sup>as</sup> they have to look at entire person's life. Using case studies such as Clive Wearing helped prove there are separate stores, the STM and LTM as he could recall some information from his LTM but couldn't form new memories, thus supporting the STM and LTM being separate stores.

In conclusion, cognitive psychology is largely reductionist.  
Despite reconstructive theory and case studies being more holistic,  
looking at a person's whole life, cognitive psychology is more  
reductionist as many of its theories such as M.S.M of memory or the  
working model of memory separate memory into distinct stores/which is reductionist

(Total for Question 15 = 8 marks)



**ResultsPlus**

**Examiner Comments**

This candidate has achieved level 3, 6 marks.

The response demonstrates accurate, although not thorough, knowledge and understanding of reductionism with arguments that have been developed using mostly coherent chains of reasoning and lead to an assessment being presented. There is some understanding of competing arguments about reductionism in cognitive psychology, but the significance and logical reasoning has not been well developed.



## Question 16

Candidates were directed to draw on two different areas studied in order to evaluate how well different explanations from social psychology and biological psychology could explain Matt's behaviour. Candidates were required to demonstrate an equal emphasis between knowledge/ understanding and application to the scenario, along with evaluations/ conclusions in their answer. Most candidates were able to focus on social and biological psychology in their response, giving a balanced evaluation, with those giving stronger responses able to exemplify their evaluations through supporting evidence and alternative theoretical concepts. Where candidates achieved less well, they tended to demonstrate a basic understanding of social and biological psychology, sometimes applied to the context of Matt, however this was often presented in disjointed paragraphs and lacked logical chains of reasoning or argument. Many of the responses achieving less well consisted of generic, unsupported statements, with little or no evidence or developed evaluation.

**16** Matt is 16 years old and has been getting into fights when he goes out with his friends. His mother blames his friends, however Matt denies this and says he cannot control his own behaviour.

Evaluate how far social and biological psychology can explain Matt's behaviour. You must make reference to the context in your answer.

(12)

Social psychology would account for Matt's behaviour firstly due to Social Impact theory. Social Impact theory asserts that obedience occurs due to three variables "strength", "immediacy" and "Numbers". Thus, Matt's friends may influence him to get into fights due to their high "strength" as an influence to Matt. Also, as Matt's friends are in a close proximity to him when he goes out they have a higher amount of social influence to persuade him to get into fights (strong immediacy). Social identity theory can also explain Matt's behaviour. Matt may identify himself in a group (social categorisation) and conform to group norms which may be fighting (social identification). Thus, Matt may resort to fight to maintain both his and his group's self-esteem (social comparison) when faced

with a competitor group. Realistic conflict theory may also back up Matt's mother's claims that his friends are a causation of his fighting behaviour. Realistic Conflict theory asserts that competition, and by extension fighting, occurs when two groups are in competition for the same resource. Thus, Matt and his friends may compete (through fighting) for resources such as territory. Thus, on the other hand, social psychology tends to back up Matt's mother's concern that his friends are a maladaptive precipitant in his fighting habits.

On the other hand, biological psychology asserts that Matt's behaviour may be due to possible biological predispositions. For example, Matt's fighting behaviour could be explained on a neurological basis. Matt may have an overactive Amygdala (emotional centre of the brain) which creates an over-reaction to emotional stimuli in Matt, thus leading to aggressive tendencies and fighting behaviour. Secondly, Matt's fighting behaviour can be explained on a hormonal basis, where Matt has an excess of the hormone Testosterone. Testosterone is a steroid hormone that is produced in the testes and is responsible for the maintenance of male characteristics such as

aggression and spatial awareness). Thus, an overproduction of testosterone in Matt may create an increase in aggressive tendencies. Matt's aggressive behaviour could also be explained by Freudian psychology. Sigmund Freud suggests that through psychodynamics, the human personality is comprised of three interrelated structures: ID, SUPEREGO and EGO. According to Freud, if the ID (selfish, hedonistic part of personality) impulses remain unchecked, this can result in destructive, immoral and ultimately aggressive behaviour. Thus, Matt may have unchecked ID impulses or a under-produced EGO (producing a dominant ID) which creates his aggressive tendencies. Also, according to an evolutionary approach, Matt's aggression may stem from his evolutionary ancestors where more aggressive males were favoured for mate selection and resource retention. Thus biological explanations of aggression tend to support Matt's hypothesis that his aggression is beyond his control, possibly due to a biological predisposition to aggression and fighting behaviour.

Ultimately, it is clear that social-explanations of Matt's behaviour tend to focus on his environment and advance Matt's moral claims about his friends as the cause of his fighting. Whilst biological explanations offer a more "deterministic approach" that

Matt's behaviour is the result of neurological imbalance, and thus are beyond his control. One could however state that his behaviour may be caused by both social and biological factors through bio-social explanations of aggression.



**ResultsPlus**  
Examiner Comments

This candidate achieved Level 2, 6 marks. They demonstrate mostly accurate knowledge and understanding, with some application of relevant evidence from the context of Matt and his behaviour. The evaluations consist of statements that are mostly accurate although there are limitations in the evaluation skills and the response leads about how far social and biological psychology can explain Matt's behaviour.



**ResultsPlus**  
Examiner Tip

Where appropriate, the use of supporting evidence to exemplify knowledge and understanding and justify evaluation points may benefit candidates when responding to extended open response questions. This may help candidates present a balanced argument that is developed by drawing on evidence for and against their points.

## Paper Summary

Based on performance on this paper, candidates are offered the following advice:

- Some candidates may benefit from practising their timing and balance of content in responses. Many candidates did not appear to draw on the question size to aid in their examination timing, giving more detail than required in short-answer questions.
- Within their extended open responses, candidates should give balanced responses and exemplified points which lead to making informed conclusions or judgements (where appropriate to the taxonomy used) in relation to the question content.
- Candidates should clearly apply their understanding of psychology to the context in a given scenario, they should not just give a name or single word as this is insufficient as an application skill.
- Generic points should be avoided. Candidates should be able to give specific responses that are clearly linked to the question content and taxonomy, for example when evaluating studies, it should be explicit how the point made relates to the study.
- Candidates should review the taxonomy expectations within the specification to aid them in understanding the key requirements of the questions, particularly in reference to compare questions, and the distinctions between assess and evaluate in extended essays, along with the differences between describe and explain in shorter questions.
- Where candidates are expanding their points, the use of evidence and supporting/contesting concepts could aid them in exemplifying their knowledge and understanding as appropriate.
- Candidates should consider their key question of relevance to society and have a clear focus about how or why this key question is of relevance to society. Centres are directed to the support materials online for key questions.
- Candidates conduct mathematical calculations well, however they are less able to rationalise the choices made in the mathematical decision making processes and would benefit from a fuller understanding of the statistical decision making process.

## Grade Boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:

<http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx>



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