

Mark Scheme (Results)

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Pearson Edexcel GCSE in Psychology (5PS02) Unit 2: Social and Biological Psychological Debates



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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.
- Mark schemes will indicate within the table where, and which strands of QWC, are being assessed.

The strands are as follows:

- (i) ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear
- (ii) select and use a form and style of writing appropriate to purpose and to complex subject matter
- (iii) organise information clearly and coherently, using specialist vocabulary when appropriate.

OWTTE = Or Words To That Effect

Topic C: Do TV and video games affect young people's behaviour?

Question Number	Answer	Mark
1a	D. X A questionnaire	AO 1=1
		(1)

Question Number	Answer	Mark
1b (i)	B. X Japanese students were more physically aggressive than Spanish students.	AO1 = 2
(ii)	D. Spanish students were more verbally aggressive than Japanese students.	(1)

Question Number	Describe what Ramirez et al found out about aggression in males and females. Answer	Mark
1c	One mark per point/elaboration. Max 1 if only males OR females mentioned in the answer. Males were more aggressive than females;	AO1 = 2
	This gender difference occurred across both cultures; Males are often raised to be masculine; Males have testosterone which may explain why men are more aggressive; Males and females show the same level of anger; Males show more verbal aggression than females; Males show more physical aggression than females; Males show more hostility than females; OWTTE	(2)

Question Number	Describe the type of data that Ramirez et al gathered in their study. Answer	Mark
1d	One mark for correct identification One mark for elaboration of type of data that has been identified (do not credit elaboration if it does not match ID). If you are unsure whether the spelling is quantitative or qualitative refer to 1e and check against strength.	AO3 =2
	ID: Quantitative; Closed ended question answers; Ranked scale data; Numerical data; Self report data; Ordinal data; Primary data; Correlational data; Ratings from the Aggression Questionnaire (Buss and Perry, 1992)/verbal and physical aggression ratings; Ratings from the EXPAGG Questionnaire (Campbell et al, 1992)/expressive and instrumental aggression ratings; Reject: questionnaire data as ID Elaboration would include an example of a question that was used to gather data they have ID'ed e.g. 'Some of my friends think I am a hothead', or defining the type of data they ID'ed, or elaborating or how the data was used e.g., to ask participants to rate themselves on a scale. Consider OWTTE	

Question Number	Explain one strength of the type of data gathered by Ramirez et al. Answer	Mark
1e	One mark for a strength and a further mark for explaining the strength. Ignore weaknesses. If more than one strength, mark all and credit the best.	AO3 = 2
	The data is not open to interpretation (1 mark); so the findings are unbiased/not subjective by the researcher (2 marks); The data was easily collected (1 mark); because questionnaires were used that had closed ended questions (2 marks); The data can be easily analysed (1 mark); and subject to statistical analysis/graphical presentation (2 marks); The data is straight from the participant as it is self-reported (1 mark); not inferred by the researcher (2 marks); Accept other reasonable marking points	(2)

Question Number	Explain one weakness of Ramirez et al's study. Answer	Mark
1f	One mark for a weakness and a further mark for explaining the weakness. Ignore strengths. If more than one weakness, mark all and credit the best.	AO2 = 2
	The data was self reported so the participants may have lied (1 mark); this would lead to biased data (2 marks); The data was a report and may not reflect reality (1 mark); participants may say that they would be aggressive but in a real situation they may not behave aggressively(2 marks); The sample were all university students so is biased (1 mark); and may not reflect the behaviour or other subgroups (2 marks); Participants were psychology student so may have altered their responses/guess the aim (1 mark) to make them look more socially desirable/less (more) aggressive than they actually are/display demand characteristics (2 marks); Accept other reasonable marking points	(2)

Question Number	Lloyd recently had a birthday and is allowed to stay up later at night. His parents are worried that he will be watching inappropriate television programmes. (a) With reference to censorship, explain why Lloyd's parents have concerns over what Lloyd is watching on television. Answer	Mark
2a	One mark per point/elaboration; Max 2 marks if no reference to censorship/watershed	AO1 = 3
	Content (1 mark):Lloyd is watching programmes beyond the watershed so he may be exposed to more violent/aggressive/inappropriate material on TV; Suitability for age (1 mark): Lloyd will be viewing censored material only available for older age groups/too young to watch/unsuitable for younger children; Effect (1 mark): His parents may be worried that Lloyd may copy/imitate/behave the same as TV and become aggressive;	(3)

Question Number	You will have studied the research of Charlton et al (2000). Using the findings of Charlton et al's study, explain how you might reassure Lloyd's parents about the possible effects of him watching television late into the night.	Mark
2b	One mark per point/elaboration. Max 1 for the findings of Charlton's study without reference to how the parents might be reassured.	AO2 = 2
	Charlton found no difference in aggression after TV was introduced; This means that Lloyd will not be affected by aggression on TV;	(2)
	With surveillance Lloyd may not display any aggression; It has been shown that careful behaviour monitoring may mediate the effects of TV aggression;	
	There are marks available for the counter argument e.g. Charlton's participants were under a high level of community surveillance so Lloyd may be affected as Williams suggested.	
	Accept other reasonable marking points	

Question Number	Answer	Mark
2c	D. Categories of behaviour are identified and tallied when observed.	AO3 =
		(1)

Question Number	Describe how Lloyd might go about conducting his content analysis. Answer	Mark
2d	One mark per point/elaboration Please note no credit for repetition of stem in question 2c.	AO3 = 3
	Lloyd would need to decide what categories of aggressive behaviour (and non-aggressive behaviour) he wants to measure for example hitting (at least one example is needed for this marking point); Lloyd would need to decide on a sample of programmes by type/genre that he could watch (in the day/evening); He will then have to watch and tally each time he saw this particular behaviour occurring on the television [watching/observing needs to be explicit]; He would then total his tallies and compare daytime and evening scores; He could use a different rater to view the same programmes for interrater reliability; Look for other relevant material	(3)

Question Number	Answer	Mark
2e	C. did not use participants in his content analysis	AO3 =
		(1)

Question Number	Lloyd found that aggression increased on television throughout the night. He concluded that children should not be exposed to late night television as they may become more aggressive as a result of what they are watching. Name one theory that can be used to explain Lloyds conclusion Answer	Mark
2f (i)	Ignore 'biological' theories Social learning theory/social; learning/modelling/imitation/observational learning/vicarious learning/vicarious reinforcement /desensitisation/habituation/general aggression model/frustration aggression; No credit for 'copying' or 'catharsis'	AO1 = 1 (1)

Question Number	Outline one weakness of the theory you have named in (f). Answer	Mark
2f(ii)	One point per mark/elaboration. Ignore strengths TE: If 2fi is incorrect but f(ii) correctly evaluates fi and is a theory, all marks can be accessed. If f(ii) does not match fi, max 1 mark can be accessed. If fi is 'copying' then all marks can be accessed in f(ii).	AO2 = 2 (2)
	SLT is difficult to measure because there may be an time lapse between watching and copying (1 mark); this makes it difficult to establish whether watching results in modelling (2 marks); The cause of Lloyds aggression may be biological (1 mark); being a boy Lloyd has testosterone, known to be a cause of aggression (2 marks); It could be that aggressive individuals seek out aggressive TV rather than it make them become aggressive (1 mark) this is an issue of cause and effect (2 marks); Not all children who watch violent TV become aggressive/Not all aggressive people watch violent TV (1 mark); (and) there may be other factors such as biology that make them aggressive which may explain this (2 marks);	
	Accept other reasonable marking points	

Question Number	Answer	Mark
3a	B. x	AO1 = 1
		(1)

Question Number	Answer	Mark
3b	C. x	AO1 =
		(1)

Question Number	Biological explanations of aggression are understood in terms of the nature side of the nature-nurture debate.	Mark
	Evaluate the nature argument in this debate in understanding aggression.	
	Answer	
3c	One mark per point/elaboration. Alternative explanations (social, behavioural) needs to be detailed and specific not just stated – Max 1 for alternative explanation.	AO2 = 4
	e.g. Testosterone Animal studies have been conducted to show that increased testosterone leads to aggression/castration leads to lowered aggression; Biological evidence for the role of nature can come from animals who act upon instinct in response to aggressive trigger, which may not be the same as humans who tend to inhibit aggressive impulses; Human blood samples of testosterone levels correlate with self-reported aggression;	(4)
	e.g. Limbic system/amygdala the case of Charles Whitman who had a tumour pressing against his amygdala has been linked to his murders; [King, 1961] reported a documented case of aggression induced by the electrical stimulation of a woman's brain;	
	Generic Objective measures can be taken of hormone levels/genes/brain scans, which are scientific; The human brain can be difficult to study because we cannot directly damage the brain we can only use scanning for ethical reasons; Alternative theories, such as SLT, suggests in contrast that aggression is caused through the observation and imitation of violent others/upbringing and childrearing strategies such as power assertion can make children lack self-esteem leading to delinquency; (Max 1 for alternative explanation);	
	Look for other reasonable marking points	

Topic D: Why do we have phobias?

Question Number	Annabel was investigating people's phobias of animals. She decided to investigate phobias using a questionnaire. Write an open-ended question that Annabel could use in her questionnaire.	Mark
	Answer	
4a	Accept any answer that could lead to a response not 'yes/no' or ranked/Likert in nature. Reject questions unrelated to phobias	AO3 =
	'Describe what phobia you have';	(1)

Question Number	Write a closed question that Annabel could use in her questionnaire.	Mark
4b	Answer Accept any answer that could lead to a yes/no response. Ignore	AO3 =
45	rank-scale questions and questions unrelated to phobias.	1
	'Do you have a phobia?'	(1)

Question Number	Write one rank-scale question that Annabel could use in her questionnaire. Answer	Mark
4c	Accept Likert scale. Reject questions unrelated to phobias	AO3 =
	'On a scale of 1-5, how phobic of cats are you' 'Put the following list of animals in order of fearfulness'	_
	Ignore open ended or closed ended 'yes/no'	(1)

Question Number	Compare open-ended and closed questions in terms of usefulness. Answer	Mark
4d	Comparison for max credit – max 1 if no comparative element in the answer. One element should be compared/contrasted with the same element for the questions e.g., subjective vs objective, a list of strengths/weaknesses without counterpoint comparison is just evaluation (not comparison) so max 1 mark.	AO3 = 2
	Mark according to the levels below:	
	0 marks No rewardable material	
	1 mark Evaluation offered but no comparison given between each point made. e.g. Closed questions are useful because they are easy to analyse.	
	2 marks Clear comparison offered (both sides detailed, more than 'or not'). E.g. Open questions produce qualitative data which is difficult to analyse compared to quantitative data from closed questions which is easier to analyse; E.g. Open question answers are open to interpretation by the researcher but closed ended answers are objective; Look for other reasonable material	

Question Number	Before conducting her questionnaire, Annabel thought she should write standardised instructions for her participants. Write standardised instructions that Annabel could use for her investigation. Answer	Mark
4e	Use the levels below for marking	AO3
	0 marks No rewardable material	=3
	1 mark Basic set of instructions referring to answering questions on a questionnaire (may be no reference to phobias)	(3)
	2 marks Basic set of instructions with one or more of : ethics (consent/right to withdraw) or specific instructions on the procedure they will undertake or checking participant understanding There MUST be clear reference to phobias	
	3 marks Instructions should have specific reference to procedure/aim/type of questions and a check of understanding or a good outline of ethics (consent or right to withdraw or privacy or confidentiality) and refer to phobias/fears.	
	Indicative content:	
	Thank you for volunteering/agreeing to take part in this study. You will be given a questionnaire about phobias to complete. The aim of the study is to investigate phobias. You will be required to complete different questions (open, closed, rank-scale). You do not have to complete the questionnaire and can leave at any point without penalty/consequence. You will be asked about phobias of animals (dogs/cats/spider etc). Because phobias are distressing for some people you should be aware that they will be questions that will ask about them. Please sign here to give your fully informed consent to take part. You can request a copy of the results if you wish. Your name/details will not be disclosed. Your questionnaire will be destroyed after 6 months.	

Question Number	A researcher wanted to create phobias of certain objects. The researcher decided that she would use classical conditioning to train a mouse to be fearful of a toy ball placed in the cage with the mouse. Each time the mouse touched the ball, it was given a small electric shock. After a few trials, the mouse avoided the toy ball. Answer	Mark
5a	Accept diagrams. Terminology may not be used but should be fully explained. No credit for repetition of stem The ball is the NS; The shock is the UCS that causes fear/pain is the UCR; The ball is associated with the shock and becomes the CS; The ball CS eventually causes fear as the CR; Diagram	AO2 = 4 (4)
	Ball - Neutral stimulus (NS) Electric shock (UCS) - Pain/fear (UCR) Ball + Electric shock (UCS) = Pain/fear (UCR) Ball (CS) = Pain (CR)	

Question Number	Answer	Mark
5b	C. X Generalisation.	AO2 = 1
		(1)

Question Number	Identify one ethical issue associated with conducting research using animals.	Mark
	Answer	
5c	Issues or guidelines are accepted e.g. distress/harm/suffering. Number of animals used; Endangered species; Caging; Conditions; Adverse/stressful procedures; Ignore human ethical guidelines other than stress/harm.	AO3 = 1
	OWTTE	

Question Number	Heinrichs et al (2005) investigated cultural issues in the development of social phobias. Outline what is meant by the term culture. Answer	Mark
6a	Good examples can gain credit if linked to culture. Levels based marking	AO1 = 2
	1 mark for vague/general outline of culture. A group of people who follow beliefs and traditions; Social norms that exist within a set of people; Rules that guide the behaviour of a particular group; A general way of living within a certain group of people/country; Differences between behaviours of people based on where they live/background; 2 marks for detailed/elaborated outline of culture. A group in society that have their own sets of beliefs/values/behaviours. For example the Spanish may be more verbally aggressive than other cultures; A group in society that have their own sets of beliefs. For example those in collectivist cultures understand what is considered to be the social norm, whereas individualistic cultures value individuality more;	(2)
	Culture is based on the norms and values of our society. Culture usually develops over a period of time, taking into consideration historical context; Look for other reasonable marking points	

Question Number	Answer		Mark
6b	Culture	Identify one country from the above list	AO1 = 2
	Individualistic	USA Australia The Netherlands Germany Canada	(2)
	Only accept one of the listed cou one answer in a box, one of which box. One mark for one correct co	<u> </u>	

Question Number	Heinrichs et al asked participants a series of questions about how they might behave in various social situations. Depending on the answer given, the response was categorised as either high or low social anxiety. The following description is an example of a social situation: 'Your work colleague is supposed to give a speech to senior management about the project you have both been working on. The day of the speech your colleague is ill and asks you to give the speech instead'. (i) Suggest one high social anxiety response to this social situation. (ii) Suggest one low social anxiety response to this social situation. Answer	Mark
6c(i)	One mark per appropriate suggestion of an actual response. Refuse to give the speech; Ask another colleague to do the speech; Blushing; OWTTE	AO2 = 2 (1)
(ii)	One mark per appropriate suggestion of an actual response. Do the speech; Blushing; OWTTE	(1)

Question Number	Describe the findings of Heinrichs et al's study and suggest how their findings relate to the nature-nurture debate. Answer	Mark
6d	One mark per point/elaboration. Max 3 marks if no reference to the nature-nurture debate in some way. Heinrichs et al found that collectivistic cultures showed high social anxiety (blushing/avoiding public interaction) and/or	AO2 = 4
	individualistic showed lower social anxiety (more outgoing, less blushing); Max 1 mark.	
	This is because collectivistic cultures have a tradition of the group being the most important/not letting the group down/punish unacceptable behaviour/emphasise fitting in and not standing out from the crowd;	
	This is because individualistic cultures are more independent and value individuality/autonomy;	
	Social anxiety has a cultural basis which can be explained in terms of <u>nurture</u> rather than nature; (The mark for linking nature and nurture to the study can still be given even if social anxiety levels are mixed up between cultures) We learn social anxiety/our upbringing defines our behaviour/we are influence by people around us;	
	Look for other appropriate answers	

Question Number	Cover-Jones (1924) deconditioned a little boy's phobia of rabbits using a series of stages. Put the following stages into the correct order from the beginning of the therapy sessions. Answer		Mark
7a	Stage	Place the number 1, 2 or 3 below to indicate which stage came first, second and third.	AO1 = 2
	The rabbit was placed in a cage 12 feet away from Peter Peter let the rabbit nibble at his	3	(2)
	fingers	3	
	Little Peter touched the rabbit whilst the rabbit was held by the experimenter	2	
	1 mark for one correct answer 2 marks for two or three correct a	inswers	

Question Number	Outline one strength and one weakness of Cover-Jones's study.	Mark
	Answer	
7b	One mark per point/elaboration. Two marks for one strength and two marks for one weakness. Give the first mark for the strength/weakness and the second mark for explaining that strength/weakness. If more than one strength/weakness, mark all and credit the best. No credit for reverse repetition between strength/weakness. No credit for 'he was cured'.	AO2 = 4 (4)
	Strength Her deconditioning techniques have been used to produce a successful therapy (1 mark); systematic desensitisation is now widely used to treat specific phobias (2 marks); She made accurate observations throughout the deconditioning sessions (1 mark); this led to detailed results and adopting a scientific procedure (2 marks); It was less distressing for Little Peter than flooding (1 mark), she used a more gradual technique to decondition him (2 marks); She asked independent researchers to sequence the tolerance trials (before conditioning took place) (1 mark); so that she could not be biased as to the order of the trials for Peter (2 marks); Weakness	
	It is difficult to judge which part of the deconditioning process was successful (1 mark); because she used both classical conditioning and SLT (2 marks)[weakness only]; The initial testing of Peter (feathers, fur coat) caused him to react in a negative way/cry (1 mark); although it was important to identify triggers for his phobia (2 marks); It was a study of one boy (1 mark); and therefore it cannot be generalised to the rest of the population (2 marks); Look for other reasonable marking points.	

Topic E: Are criminals born or made?

Question Number	Twin studies are used to investigate whether criminality is inherited or due to the way a person is raised. When identical (MZ) twins and non-identical (DZ) twins are compared their similarity is described as concordance. Which one of the following possible findings is most likely to indicate that criminality is inherited? Answer	Mark
8	D. 2 70% of MZ twins are concordant for criminality	AO3 = 1 (1)

Question Number	Will was conducting research into the causes of criminality. He asked a group of school leavers from his local area what they felt their teachers thought would be their future and career opportunities. He tracked the school leavers several years later and documented how they turned out. He found that those labelled as possible criminals by their teachers were more likely to have been convicted of a criminal offence than those labelled as high achieving by their teachers. What explanation of criminality is Will investigating? Answer	Mark
9a	Social/social explanation; Self fulfilling prophecy/SFP;	AO1 = 1
	Ignore labelling, nature/nurture. Ignore scored out answers unless no alternative answer given	(1)

Question Number	What was Will's independent variable?	Mark
	Answer	
9b	There must be some degree of operationalisation. Reject; what the teachers labelled them as. Whether the school leavers were labelled as criminal/high achiever by their teachers; Being labelled as criminals or not; Being labelled as high achiever or not; What the teachers predicted their future/careers would be;	AO3 = 1 (1)
	OWTTE	

Question Number	What was Will's dependent variable?	Mark
	Answer	
9c	Whether the school leavers had been convicted of a criminal offence; whether they turn out to be a criminal;	AO3 =1
	Ignore: careers, whether they fulfilled the prophecy	(1)

Question Number	Explain one generalisability issue that Will might have with his research. Answer	Mark
9d	One mark per point/elaboration. Elaboration cannot be 'so we cannot generalise' on its own, as this is given in the question. He only used school leavers/one local area so may not apply to other areas/ages;(1) it could be that the type of environment/[age] resistance to labelling caused criminality or not;(2) It was conducted at one particular time;(1) the political/economic climate of the time may be different to other times;(2) Look for other reasonable marking points	AO3 = 2 (2)

Question Number	Explain why Will's research may be seen as subjective? Answer	Mark
9e	One mark per point/elaboration. Ignore reference to convictions as this is an objective measure of criminality in this context. Will may have interpreted the answers given by the school leavers;(1) his view of a label from a teacher may be subjective;(2) he may interpret the outcome of high achievers may be biased to his hypothesis (2); The school leavers may be biased in their recall of how they were treated by their teachers;(1) their opinion is biased/subjective;(2)	AO3 = 2 (2)
	Look for other reasonable marking points.	

Question Number	Outline one ethical issue with Will's research about the social causes of criminality. Answer	Mark
9f	One mark per point/elaboration. Ignore practical issues. Will may be highlighting the issue of labelling in a negative way;(1) which may reinforce the stereotyping/belief in the label more than it would have been had the research not been done;(2) Will may have not fully informed participants at the outset that he was investigating labelling and criminality/he used deception (1) because he was asking them about how they thought their teachers would predict future careers and opportunities (2);	AO3 = 2 (2)
	Look for other reasonable marking points	

Question Number	Which two of the following statements are appropriate uses for offender profiling? Answer	Mark
10a	C. x To suggest possible interviewing strategies. D. x To suggest a certain type of person committed a crime. Ignore strikethroughs if a different response is selected.	AO1 = 2 (2)

10b	The intention of profiling is to examine behavioural	
	evidence rather than physical evidence (hair, footprints etc)	AO1 = 1
	Time of crime; Type of crime; Location of crime; Objects left at the scene; Weapon used; Manner in which crime was committed; Things taken from the victim; Accept any reasonable clue that could be used.	(1)

Question Number	Criminal profiles are often said to be 'nothing more than guesswork'. Using your knowledge of offender profiling, explain whether you think this statement is true. Answer	Mark
10c	One mark per point/elaboration. The candidate can argue for, against or both ways to gain credit. This question asks for a judgement of offender profiling not a description (e.g. narrows down list, innocent people can be convicted is description).	AO2 = 3
	Guesswork: Profilers own subjective interpretation of behavioural characteristics of a crime; Not based on actual evidence (e.g. DNA); Has been responsible for false conviction, so guesswork (Colin Stagg);	
	Not guesswork: Based on psychological theory/geographical profiling/clinical evidence/undertaken by an expert; Behavioural clues left at the crime scene can be considered evidence to build a profile; Cases such as John Duffy have been successful use of profiling;	
	We don't know because: Its purpose is not to find a criminal but to narrow the field so it is difficult to judge whether it is guesswork; However, there are many factors that dictate successful cases so a criminal being caught or not may be a result of other factors; The police may not use the profile so it is difficult to judge accuracy/whether it is guesswork or not; Sometimes it works and sometimes it doesn't, so it's difficult to say if it works or not;	
	Look for other reasonable marking points.	

Question Number	During your course you will have learned about the studies of both Sigall and Ostrove (1975) and Madon (2004).	Mark	
	Choose one of these studies and explain one strength and one weakness of this study.		
	Answer		
11	One mark per point/elaboration. Max 2 marks for one strength and 2 marks for one weakness. The response must be about either Sigall and Ostrove or Madon, no other study is creditworthy, but there is no penalty for naming one study (crossbox) and describing the other.	AO2 = 4 (4)	
	Sigall and Ostrove (1975)		
	Possible strengths: The study was highly controlled(1 mark); so it can be said to be reliable (second mark); that participants were given standardised instructions/only one photograph/the same photo in each group/the same description of a crime in each group (second mark alternative);		
	A control group was used (1 mark); the group without the photo was compared to the photo groups for comparison (second mark); this was to ensure that the photo had a real effect on decision making (second mark alternative);		
	An independent measures design was used as different groups did not see the other photo/description (1 mark); this was to minimise demand characteristics/participants did not guess the study aim (second mark);		
	Possible weaknesses The study was not a realistic representation of what would happen to a real juror (1 mark); Real jurors would see the defendant and make decisions on more than looks alone (second mark); this means that the results may not apply to real courtroom situations (second mark alternative);		
	The measures of sentence was not realistic (1 mark); jurors do not normally give a sentence length, they just decide on guilt (second mark); real jurors would not complete a questionnaire, they would make a decision based on discussion (second mark alternative);		
	Madon (2004)		
	Possible strengths: 115 children were questioned along with their parents which is a very good sample size (1 mark); so the findings should be generalisable and to apply to others (2 marks); It could be said that parents are not fortune tellers and would therefore be unable to predict the future drinking behaviour of their children in reality (1 mark); so their predictions were a true		

test of SFP (2 marks); It was more ethical to conduct this study as a questionnaire (1 mark); as experimental methods would have been unethical to create high levels of drinking deliberately (2 marks); Possible weaknesses: A weakness is that parents were simply predicting the future accurately based on their knowledge of their own child (1 mark); and therefore the drinking was predictable rather than due to labelling (2 mark); The parents or children may have lied and understated the drinking (1 mark); as it is not socially desirable to drink (2 marks); or the parents or children may have lied and overstated the drinking to appear tougher (alternative second mark); Parents are not the strongest influences on young adults in terms of labelling (1 mark);, it may have been better to examine the role of SFP and friends (2 marks); Their drinking can be better explained by SLT (1mark); as high parental predictions could be a result of parental drinking habits which the children copied (2 marks); The study is only a correlation (1 mark), so we cannot be sure that expectation led to drinking, as other variables were not studied (2 marks);

Look for other reasonable marking points.

Question Number	Describe and evaluate one biological explanation of criminality Indicative content	
12*	Ignore social explanations for description. Credit one biological explanation e.g., hormones, genes, neuroanatomy, neurotransmitters. If more than one explanation given, mark all and credit the	A01 = 5 A02 = 5
AO1 = 5 AO2 = 5 (10)	best. Responses may use research as example (A01) alongside an explanation rather than evaluation (A02), read the whole essay and work with the	
(10)	intention of the student/to the benefit of the student – this would then be regarded as 'good' description (Level 4).	
	Description Chromosome abnormality XYY has not been shown to influence criminality. Although the warrior gene is being implicated in the cause of aggression. The MAOA gene has been identified as a possible indicator of aggression. Low functioning MAOA and childhood difficulties may predict later adult aggression. Genetics have shown that there is a degree of relatedness in certain specific criminal types. Concordance indicates that genetic relatedness corresponds with criminality.	

High levels of testosterone can lead to high levels of aggression.

Testosterone is a sex hormone related to the development of male characteristics both physically and behaviourally.

Testosterone is present in males who are known to generally be more aggressive than females.

Low activity in the prefrontal cortex and amygdala have been associated with aggression.

The amygdala is a part of the limbic system associated with emotions.

Damage to the amygdala could cause problems controlling emotions such as aggression.

Decorticated animals are unable to inhibit the impulsive aggression of the amygdala and can cause aggressive behaviour.

Evaluation

XYY has not been established as an influence on criminality directly, but perhaps lower IQ/slower learning may be an indirect result.

The biological basis of aggression is based on correlation evidence, which does not definitively establish a cause of biology on criminality.

The biological explanations state that criminality comes from within us, whereas the social explanations are linked to the environment/upbringing/other people.

Biological explanations suggest we are born criminal and social explanations suggest we are made criminal; The biological explanations are nature whereas the social explanations are nurture.

Neither explanation enables personal responsibility for criminal behaviour, they both blame other factors than free will.

Not all criminals have chromosome abnormalities/family history of criminality, similarly, not all criminals have poor family life, issues of labelling/suffered maternal deprivation (vice versa argument).

Animal research has shown that a warrior gene present in mice can lead to unprovoked aggression; Family studies show us that there are some criminal links in families, but equally this could be due to upbringing.

Nature and nurture are difficult to study/hard to separate, so we cannot conclusively link either theories to criminality.

Level	Mark	Descriptor
0	0	No rewardable material
Level 1	1-2	Very limited description of the biological explanation of criminality Little or no evaluation Writing communicates ideas using everyday language, but the response lacks clarity and organisation. The candidate spells and
		punctuates and uses the rules of grammar with limited accuracy.
Level 2	3-4	Reasonable description of the biological explanation of criminality Some attempt at evaluation.
		Writing communicates ideas using a limited range of psychological terminology and showing some skills of selection and organisation of material, but passages lack clarity and organisation. The candidate spells, punctuates and uses some of the ideas of grammar with general accuracy.
Level 3	5-6	Reasonable description of the biological explanation of criminality and at least one clear evaluation point. OR Very good description of the biological explanation of criminality and no or limited reference to evaluation.
		Writing communicates ideas using psychological terms accurately and showing some direction and control in the organisation of material. The candidate uses some of the rules of grammar appropriately and spells and punctuates with considerable accuracy, although some spelling errors may still be found.
Level 4	7-8	Good description of the biological explanation of criminality and two or more clear evaluation points Writing communicates ideas using psychological terminology
		accurately and showing some direction and control in the organisation of material. The candidate uses some of the rules of grammar and spells and punctuates with considerable accuracy, with few spelling errors.
Level 5	9-10	Very good description of the biological explanation of criminality and clearly explained evaluation using a range (breadth and depth) of evaluation points.
		Writing communicates ideas effectively, using a range of precisely selected psychological terminology and organising material clearly and coherently. The candidate spells, punctuates and uses the rules of grammar with considerable accuracy.