

# Oxford Revise | AQA A Level Psychology | Answers

## Chapter 15

All exemplar answers given would achieve full marks or the top level.

**1. Marks for this question: AO1 = 1**

Serotonin

**2. Marks for this question: AO2 = 4**

This question is level-marked:

Level	Marks	Description
2	3–4	<ul style="list-style-type: none"> <li>Knowledge of the frustration–aggression hypothesis is clear and mostly accurate.</li> <li>The material is applied appropriately.</li> <li>The answer is generally coherent with effective use of specialist terminology.</li> </ul>
1	1–2	<ul style="list-style-type: none"> <li>Some knowledge of the frustration–aggression hypothesis is evident.</li> <li>Application is not always appropriate.</li> <li>The answer lacks accuracy and detail.</li> <li>Use of specialist terminology is either absent or inappropriate.</li> </ul>
	0	No relevant content.

**Possible AO2 application:**

- Amadu was angry because his goal of contacting his ex-girlfriend to see why she had broken up with him was blocked – she had blocked him on all social media.
- Frustration occurs when a goal is blocked and leads to aggression.
- He used displacement to take out his frustration by breaking his twin’s game’s console.
- The object of his frustration was unavailable, so he displaced the aggression onto an innocent party (his twin).
- This would have satisfied his drive for catharsis – breaking the console would have released the negative and aggressive emotions.

Credit other relevant applications.

### 3. Marks for this question: AO1 = 4

This question is level-marked:

Level	Marks	Description
2	3–4	<ul style="list-style-type: none"> <li>Knowledge of the terms ‘innate releasing mechanisms’ and ‘fixed action patterns’ is clear and accurate.</li> <li>The answer is mostly coherent with effective use of specialist terminology.</li> </ul>
1	1–2	<ul style="list-style-type: none"> <li>Knowledge of the terms ‘innate releasing mechanisms’ and ‘fixed action patterns’ is briefly stated with little elaboration.</li> <li>The answer may include inaccuracies and be poorly organised.</li> <li>Specialist terminology is either absent or inappropriately used.</li> </ul> <p><b>OR</b> the term innate releasing mechanisms <b>OR</b> fixed action patterns is present at Level 2.</p>
	0	No relevant content.

#### Possible AO1 content:

- Innate releasing mechanisms (IRM) are physiological processes, such as a network of neurons, that are activated by a ‘sign stimulus’ in the environment.
- Each species has its own sign stimulus, e.g. a cat seeing another cat in its territory.
- Upon seeing the sign stimulus, the IRM activates a fixed action pattern (FAP) of aggressive behaviours.
- An FAP is a set of aggressive behaviours in response to a sign stimulus and has certain characteristics:
  - Stereotyped: the aggressive behaviour always happens in the same way.
  - Universal: behaviours are the same in all members of a species.
  - Independent of experience: the behaviour is not learned.
  - Ballistic: once triggered, the FAP cannot be stopped.
  - Specific triggers: each FAP has a sign stimulus.

Credit other relevant material.

### 4. Marks for this question: AO3 = 3

**3 marks** for a clear, coherent strength or limitation of the role of the MAOA gene in aggression, using appropriate terminology.

**2 marks** for a strength or limitation of the role of the MAOA gene in aggression that lacks some clarity or detail.

**1 mark** for a brief or muddled strength or limitation of the role of the MAOA gene in aggression.

**Possible AO3 evaluation:**

- A study of Finnish prisoners found the MAOA-L gene in combination with another gene (CDH13) was associated with extremely violent behaviour. They found no evidence for either of these genes in non-violent prisoners.
- Having the MAOA-L variant does not determine aggression in all people but is moderated by life experiences. A study found an association between antisocial aggression and the MAOA-L variant, but only in those who had experienced traumatic abuse in childhood. Those with the MAOA-L variant who had experienced a stable upbringing for the first 15 years of life did not have high levels of aggression. This emphasises the diathesis-stress relationship: the MAOA-L gene gives a vulnerability for aggression but is only triggered if traumatic experiences occur.
- The MAOA gene is linked to the X chromosome, which could explain why males show more aggressive behaviours than females. As men only have one X chromosome, they are more likely to be negatively affected by X-linked genes, as they do not have a second X chromosome which could compensate.
- In a study of intimate partner violence, men with the MAOA-L variant combined with low activity of the serotonin transporter gene (5-HTT) were the most violent perpetrators. A meta-analysis found no evidence of an association between any one gene and aggression. Researchers calculated that thousands of genes interact in complex ways to determine aggressive behaviour and suggest there are multiple genetic influences on aggression.
- Many studies have not found evidence for heritability in violence, but this could be due to issues with samples. Most investigations study only those convicted of a violent crime, which only represents a small number of aggressive individuals. Those who are convicted of a violent crime like murder might not be persistently aggressive as their crime may have been a one-off. Credit any valid strength or limitation.

**5. Marks for this question: AO1 = 5**

This question is level-marked:

Level	Marks	Description
3	5	<ul style="list-style-type: none"> <li>• Knowledge of the evolutionary explanations of human aggression is clear, accurate, and detailed.</li> <li>• The answer is coherent with effective use of specialist terminology.</li> </ul>
2	3–4	<ul style="list-style-type: none"> <li>• Knowledge of the evolutionary explanations of human aggression is mostly clear and accurate, with some detail.</li> <li>• The answer is mostly coherent with effective use of specialist terminology.</li> </ul>
1	1–2	<ul style="list-style-type: none"> <li>• Knowledge of the evolutionary explanations of human aggression is briefly stated with little elaboration.</li> <li>• The answer may include inaccuracies and be poorly organised.</li> <li>• Specialist terminology is either absent or inappropriately used.</li> </ul>
	0	No relevant content.

**Possible AO1 content:**

- Evolutionary explanations believe that aggression is an evolutionary adaptation that ensured reproductive success in our ancestors.
- In ancestral times, physical aggression allowed men to win fights to gain access to women. The strongest and most aggressive man would get to pass on his genes, leading to a genetically transmitted tendency for male aggression.
- Anthropological evidence shows that men have thicker jawbones and are more physically robust than women. This may have evolved from men hitting each other, with the most robust men surviving and passing on their genes.
- Men are more likely to exhibit sexual jealousy than women and display aggression to ensure sexual fidelity, because they can't know for certain if a baby is theirs.
- Cuckoldry is when a man unknowingly brings up another man's baby. This can waste his resources and prevent him from passing on his own genes. Men may therefore employ aggressive mate retention strategies, including:
  - Direct guarding: vigilance over all aspects of their partner's life, such as reading their partner's private messages.
  - Negative inducements: issuing threats of self-harm if their partner leaves them or is unfaithful.
- These strategies are linked to aggressive violence. Women who reported such strategies are twice as likely to have suffered severe physical violence from their partner.
- Key study: 107 married heterosexual couples completed different questionnaires. Men completed the mate retention inventory, which measured things such as direct guarding, and women completed the spouse influence report, which measured their partner's violence towards them.
- There was a strong positive correlation between scores on the questionnaires, so men who used mate retention strategies were more likely to use physical violence against their partners.

Credit other relevant material.

**6. Marks for this question: AO1 = 4**

This question is level-marked:

Level	Marks	Description
2	3–4	<ul style="list-style-type: none"> <li>• Knowledge of one study of media influence on aggression is clear and accurate.</li> <li>• The answer is mostly coherent with effective use of specialist terminology.</li> </ul>
1	1–2	<ul style="list-style-type: none"> <li>• Knowledge of one study of media influence on aggression is briefly stated with little elaboration.</li> <li>• The answer may include inaccuracies and be poorly organised.</li> <li>• Specialist terminology is either absent or inappropriately used.</li> </ul>
	0	No relevant content.

**Possible AO1 content:**

- Procedure: a laboratory experiment required participants to watch either a non-violent film or a film with a graphic rape scene. All participants then watched a re-enactment of a rape case.
- Findings: male participants who watched the film with a graphic rape scene showed less sympathy to the victim and greater acceptance of sexual aggression. They were less likely to find the defendant guilty.
- Procedure: male participants listened to song lyrics that were either aggressively derogatory to women, or neutral.
- Findings: men who heard the aggressive song lyrics later recalled more negative qualities about women and behaved more aggressively towards a female confederate. The findings were replicated in female participants listening to man-hating lyrics.

Credit any relevant study of media influences on aggression.

**7. Marks for this question: AO1 = 2**

**2 marks** for a clear, coherent outline of de-individuation as an explanation for aggression using appropriate terminology.

**1 mark** for a brief or muddled outline of de-individuation as an explanation for aggression.

**Possible AO1 content:**

- De-individuated people feel anonymous, lose their sense of identity, and feel no personal responsibility for their actions.
- They are more likely to ignore social norms and even laws and can behave in aggressive ways without guilt.
- Being unidentifiable reduces the fear of retribution and being judged negatively by others. These factors can lead to aggression.

Credit other relevant material.

**8. Marks for this question: AO3 = 6**

This question is level-marked:

Level	Marks	Description
3	5–6	<ul style="list-style-type: none"> <li>• Evaluation of social learning theory as an explanation for aggression is thorough and effective.</li> <li>• The answer is clear, coherent, and focused.</li> <li>• Specialist terminology is used effectively.</li> </ul>
2	3–4	<ul style="list-style-type: none"> <li>• Evaluation of social learning theory as an explanation for aggression is evident but there are occasional inaccuracies/omissions.</li> <li>• The answer lacks clarity in places.</li> <li>• Specialist terminology is used appropriately on occasions.</li> </ul>

1	1–2	<ul style="list-style-type: none"> <li>• Evaluation of social learning theory as an explanation for aggression is limited.</li> <li>• The answer lacks clarity and organisation.</li> <li>• Specialist terminology is either absent or inappropriately used.</li> </ul>
	0	No relevant content.

**Possible AO3 evaluation:**

- Researchers found that most aggressive boys aged 9–12 years form stable friendship groups with each other. The groups use aggression to successfully gain resources, which reinforces the positive consequences and increases self-efficacy. The boys are constantly exposed to models of aggression (each other) and rewarded for being aggressive via approval from the group. The findings provide support for all aspects of SLT's explanation of aggression.
- SLT can explain differing aggressive behaviour in one individual. The consequences of aggression change in different settings, so a person may be aggressive when with their friends who value it, but not at work where they are likely to be sacked.
- The !Kung people of the Kalahari Desert separate any children being aggressive without punishing or rewarding them. Aggression is rarely displayed, and vicarious reinforcement of aggression is rare. This suggests that aggression is innate (children still fight) but social learning influences non-aggressive behaviour and attitudes. Children internalise the norms of their society and learn non-aggressive cognitive scripts.
- It was questioned whether the findings from the Bobo doll were generalisable, as children saw the model hitting a doll rather than a person. However, a subsequent study required children to watch a video of an adult hitting a live clown and found that children also imitated this behaviour, providing support for SLT.

Credit other relevant evaluations.

**9. Marks for this question: AO1 = 6**

This question is level-marked:

Level	Marks	Description
3	5–6	<ul style="list-style-type: none"> <li>• Knowledge of the role of desensitisation, disinhibition, and cognitive priming on aggression is clear and accurate.</li> <li>• Specialist terminology is used appropriately.</li> </ul>
2	3–4	<ul style="list-style-type: none"> <li>• Knowledge of the role of desensitisation, disinhibition, and cognitive priming on aggression is evident but there may be some omissions/lack of clarity.</li> <li>• There is some appropriate use of specialist terminology.</li> </ul>
1	1–2	<ul style="list-style-type: none"> <li>• Knowledge of the role of desensitisation, disinhibition, and cognitive priming on aggression is present but there may be serious omissions and/or inaccuracies.</li> <li>• Specialist terminology is either missing or inappropriately used.</li> </ul>
	0	No relevant content.

**Possible AO1 content:**

- Desensitisation: when children repeatedly consume violence through media, they experience desensitisation, and their aggressive arousal is no longer inhibited by anxiety. This normalises aggression and makes its use more likely.
- Disinhibition: society views aggression and violence as unacceptable, even if people feel irritated. Disinhibition refers to people developing more accepting attitudes to aggression because they consume media that normalises it. This translates to aggressive behaviour in their own lives, as they are less inhibited to display aggression.
- Cognitive priming: if someone is 'primed', their brain is more likely to respond in a specific way to environmental cues (triggers). Repeated consumption of violent media can prime someone to become aggressive if cues are present.

Credit answers embedded in examples. Studies may be used to emphasise points but are not necessary for full marks.

**10. Marks for this question: AO1 = 3, AO3 = 5**

This question is level-marked:

Level	Marks	Description
4	7–8	<ul style="list-style-type: none"> <li>• Knowledge of one social-psychological explanation of aggression is accurate with some detail.</li> <li>• Discussion is thorough and effective. Minor detail and/or expansion of argument is sometimes lacking.</li> <li>• The answer is clear, coherent, and focused.</li> <li>• Specialist terminology is used effectively.</li> </ul>
3	5–6	<ul style="list-style-type: none"> <li>• Knowledge of one social-psychological explanation of aggression is evident but there are occasional inaccuracies or omissions.</li> <li>• Discussion is mostly effective.</li> <li>• The answer is mostly clear and organised but occasionally lacks focus.</li> <li>• Specialist terminology is used appropriately.</li> </ul>
2	3–4	<ul style="list-style-type: none"> <li>• Limited knowledge of one social-psychological explanation of aggression is present.</li> <li>• Focus is mainly on description. Any discussion is of limited effectiveness.</li> <li>• The answer lacks clarity, accuracy, and organisation in places.</li> <li>• Specialist terminology is used inappropriately on occasions.</li> </ul>

1	1–2	<ul style="list-style-type: none"> <li>• Knowledge of one social-psychological explanation of aggression is very limited.</li> <li>• Discussion is limited, poorly focused, or absent.</li> <li>• The answer as a whole lacks clarity, has many inaccuracies and is poorly organised.</li> <li>• Specialist terminology is either absent or inappropriately used.</li> </ul>
	0	No relevant content.

**Note:** the social-psychological explanations for aggression are the frustration–aggression hypothesis, social learning theory, and de-individuation. Answers should only cover one of these.

**Possible AO1 content for the frustration–aggression hypothesis:**

- The frustration–aggression hypothesis says that frustration always leads to aggression, and aggression is always the result of frustration.
- Frustration is caused by a goal being blocked. This frustration creates a drive which can be satisfied by aggression. It is based on the psychodynamic concept of catharsis because aggressive actions or thoughts release emotions and relieve the feelings of aggression.
- Often, people can't be aggressive towards the source of their frustration, so they may take out their anger on a substitute.
- Displacement can occur if the source of frustration is too powerful, like a manager, or if it is abstract, like the economy.
- Researchers found that if participants were given justification for frustrating scenarios, they expressed much lower levels of anger. E.g. a bus not stopping for them caused anger, but if it had an 'out of service' sign it didn't.
- When aggressive cues, such as weapons, are present in the environment, they increase the likelihood of aggression being carried out.
- Key study: male university students were asked to complete a puzzle. There were three conditions, each designed to create frustration. Participants were then asked to give electric shocks to the confederate when they made a mistake on another task.
- All groups gave higher intensity shocks than a non-frustrated control group. The insulted participants gave the strongest shocks, followed by the interfered group and then the impossible task group.

**Possible AO3 evaluation for the frustration–aggression hypothesis:**

- When participants repeatedly punched a punchbag, they became angrier. Doing nothing was more effective at reducing anger than venting. This contradicts the concept of catharsis.
- Evidence for displacement: a meta-analysis of 49 studies found that participants would direct their anger towards an innocent third party when they were provoked, if they were unable to direct their anger at the source.



- Social learning theorists claim that an individual's response to frustration is learned rather than automatic. Individuals may respond to frustration aggressively if it has been effective before (direct reinforcement) or if they have seen it be effective in others (vicarious reinforcement).
- Frustration caused by social and economic difficulties in society may result in mass killings. This was observed after the First World War, when widespread frustrations about the problems in Germany were directed at Jews who became scapegoats. Nazi propaganda exacerbated the anger, resulting in catastrophic mass killings.

#### **Possible AO1 content for social learning theory (SLT):**

- Social learning theory (SLT) believes a child learns attitudes and behaviours, such as aggression, through observation and imitation of significant role models such as parents, teachers, siblings, and friends.
- A child learns vicariously through observing the consequences of other people's behaviour. They are more likely to imitate aggressive behaviour if they see it being rewarded and learn the circumstances where aggression may have a good outcome for them.
- The child develops a cognitive schema from observing the 'rules' of aggression followed by role models. These rules become a 'script' that is internalised and establishes patterns of aggression for life.
- The child will only imitate aggression if they pay attention to the role model, retain what they see, have the skills to reproduce the aggressive behaviour, and are motivated to imitate (meaning there must be something worthwhile to gain from being aggressive).
- Self-efficacy is a person's confidence that they can achieve their goal even in the face of barriers. In aggression, a child's self-efficacy develops with each successful demonstration of aggressive behaviour, e.g. they are successful in snatching a toy. If they have been unsuccessfully aggressive in the past, e.g. someone has harmed them when they tried it, they won't be confident to try it again.
- Key study: in the Bobo doll study, children observed an adult role model hitting a Bobo doll. They were taken to a room with many toys including a Bobo doll and allowed freedom to play.
- Children who observed the aggressive model closely imitated the actions they saw, including physically attacking the Bobo doll and using novel hostile language. There was no aggressive behaviour from children who had not seen the model.

#### **Possible AO3 evaluation for social learning theory (SLT):**

- Researchers found that the most aggressive boys aged 9–12 years form stable friendship groups with each other. The groups use aggression to successfully gain resources, which reinforces the positive consequences and increases self-efficacy. The boys are constantly exposed to models of aggression (each other) and rewarded for being aggressive via approval from the group. The findings provide support for all aspects of SLT's explanation of aggression.
- SLT can explain differing aggressive behaviour in one individual. The consequences of aggression change in different settings, so a person may be aggressive when with their friends who value it, but not at work where they are likely to be sacked.
- The !Kung people of the Kalahari Desert separate any children being aggressive without punishing or rewarding them. Aggression is rarely displayed, and vicarious reinforcement of aggression is rare. This suggests that aggression is innate (children still fight) but social learning influences non-aggressive

behaviour and attitudes. Children internalise the norms of their society and learn non-aggressive cognitive scripts.

- It was questioned whether the findings from the Bobo doll were generalisable, as children saw the model hitting a doll rather than a person. However, a subsequent study required children to watch a video of an adult hitting a live clown and found that children also imitated this behaviour, providing support for SLT.

#### **Possible AO1 content for de-individuation:**

- De-individuation is based on crowd theory, which describes how a person changes behaviour in a crowd.
- The de-individuated person feels anonymous, loses their sense of identity, and feels no personal responsibility for their actions. They are more likely to ignore social norms and even laws and can behave in aggressive ways without guilt.
- De-individuated individuals tend to behave in more emotional, impulsive, and irrational ways. They stop regulating their behaviour and fail to think of long-term consequences. Being unidentifiable reduces the fear of retribution and being judged negatively by others. These factors can lead to aggression.
- Other conditions that lead to feeling anonymous include darkness, drugs/alcohol, uniforms, masks, and disguises.
- Researchers claim it's not anonymity that causes aggression directly, but the consequences of anonymity, which lessen both private and public awareness. Reduced private awareness causes people to focus attention outwards instead of on their own feelings and belief systems. Reduced public awareness causes people to care less about what other people think of them. They realise they are one among many and less likely to be judged. Accountability diminishes and aggression increases.
- Key study: groups of four female undergraduates delivered electric shocks to another student to 'aid learning'. Participants in the de-individuated condition were unidentifiable, not referred to by name, and sat in separate cubicles. Participants in the individuated condition wore their normal clothes and large name tags and were also able to see each other when seated at the shock machines.
- De-individuated participants were more likely to shock the student in the other room (they didn't know the shocks were not real). They held the shock button for twice as long as identifiable participants.

#### **Possible AO3 evaluation for de-individuation:**

- Researchers found a strong positive correlation between anonymity and sending threatening messages in chat rooms that used instant messaging. This demonstrated a link between de-individuation and aggressive behaviour in a real-world context that has even greater relevance today with the use of social media.
- Researchers told de-individuated individuals that they would spend one hour in complete darkness with eight strangers who they would never see again and that they could do whatever they want. None of the participants became aggressive, but instead quickly began kissing.
- A meta-analysis of 60 studies of de-individuation found that antisocial behaviour is not more common in crowds and anonymous settings. De-individuation increased people's responsiveness to situational norms.
- In a study when pro-social environmental cues were present, de-individuated participants performed more altruistic and fewer antisocial acts compared to a control group.

- Researchers found that increased aggression was only found in de-individualised all-male groups, and not in all-female groups. This could be because males tend to respond more intensely to provocation than women and this is magnified under de-individualisation.
- Researchers analysed media reporting of 21 suicide leaps in the USA. In 10 cases where a crowd had gathered, they baited the person to jump. These incidents were mostly at night and had a large crowd that was some distance from the jumper, which caused individuals to feel de-individualised.

Credit other relevant material.

# **11. Marks for this question: AO1 = 3, AO2 = 2, AO3 = 3**

This question is level-marked:

Level	Marks	Description
4	7–8	<ul style="list-style-type: none"> <li>• Knowledge of genetic influences on aggression is accurate with some detail.</li> <li>• Application is effective.</li> <li>• Discussion is thorough and effective. Minor detail and/or expansion of argument is sometimes lacking.</li> <li>• The answer is clear, coherent, and focused.</li> <li>• Specialist terminology is used effectively.</li> </ul>
3	5–6	<ul style="list-style-type: none"> <li>• Knowledge of genetic influences on aggression is evident but there are occasional inaccuracies/omissions.</li> <li>• Application and/or discussion is mostly effective.</li> <li>• The answer is mostly clear and organised but occasionally lacks focus.</li> <li>• Specialist terminology is used appropriately.</li> </ul>
2	3–4	<ul style="list-style-type: none"> <li>• Limited knowledge of genetic influences on aggression is present.</li> <li>• Focus is mainly on description. Any application/discussion is of limited effectiveness.</li> <li>• The answer lacks clarity, accuracy, and organisation in places.</li> <li>• Specialist terminology is used inappropriately on occasions.</li> </ul>
1	1–2	<ul style="list-style-type: none"> <li>• Knowledge of genetic influences on aggression is very limited.</li> <li>• Application/discussion is limited, poorly focused, or absent.</li> <li>• The answer as a whole lacks clarity, has many inaccuracies, and is poorly organised.</li> <li>• Specialist terminology is either absent or inappropriately used.</li> </ul>
	0	No relevant content.

**Possible AO1 content:**

- Genetic explanations of aggression assume aggressive tendencies are inherited.
- Twin and adoption studies aim to separate environmental from genetic influences, to evaluate this.
- Monozygotic (MZ) twins and dizygotic (DZ) twins are compared to investigate the genetic basis for behaviour. Both MZ and DZ twins will have shared a very similar upbringing (environment), so a higher concordance rate of 50% for physical aggression for MZs compared to 19% for DZs suggests a genetic component is involved.
- A study of 14,000 Danish adoptees found that a significant number of adopted boys with criminal convictions for violence had biological fathers with criminal convictions for violence, suggesting a genetic basis for aggression.
- A meta-analysis of adoption studies on direct aggression and antisocial behaviour found that genetic influences accounted for 41% of the variance in aggression, similar to the findings of the twin studies.
- The MAOA gene is responsible for producing an enzyme called monoamine oxidase A (MAOA). The MAOA enzyme regulates the metabolism of serotonin in the brain. Low levels of the MAOA enzyme are caused by a variant of the gene, known as MAOA-L (nicknamed the 'warrior gene'). This leads to lower levels of serotonin and is associated with impulsive aggression.
- A researcher investigated a Dutch family whose male members had been convicted of violent crimes such as rape and arson. They all had abnormally low levels of MAOA, caused by the MAOA-L variant.

**Possible AO2 application:**

- The Butler twins are identical (share 100% DNA) and are both aggressive, suggesting they have inherited genes such as the MAOA-L variant from biological parents.
- The new twins are unidentical and Eric saw one having a fight. Olivia's comment that the other twin is unlikely to be aggressive because they are unidentical refers to the lower concordance rates of unidentical twins for aggression (19%) because they don't share 100% DNA. It's not as likely that this other twin will have inherited genes that cause aggression, such as the MAOA-L variant, from her biological parents.

**Possible AO3 discussion:**

- Many studies have not found evidence for heritability in violence, but this could be due to issues with samples. Most investigations study only those convicted of a violent crime, which only represents a small number of aggressive individuals. Those who are convicted of a violent crime like murder might not be persistently aggressive as their crime may have been a one-off.
- A study of Finnish prisoners found the MAOA-L gene in combination with another gene (CDH13) was associated with violent behaviour. They found no evidence for either gene in non-violent prisoners.
- Having the MAOA-L variant does not determine aggression in all people but is moderated by life experiences. A study found an association between antisocial aggression and the MAOA-L variant, but only in those who had experienced traumatic abuse in childhood. Those with the MAOA-L variant who had experienced a stable upbringing for the first 15 years of life did not have high levels of aggression. This emphasizes the diathesis-stress relationship: the MAOA-L gene gives a vulnerability for aggression but is only triggered if traumatic experiences occur.

- The MAOA gene is linked to the X chromosome, which could explain why males show more aggressive behaviours than females. As men only have one X chromosome, they are more likely to be negatively affected by X-linked genes, as they do not have a second X chromosome which could compensate.
- In a study of intimate partner violence, men with the MAOA-L variant combined with low activity of the serotonin transporter gene (5-HTT) were the most violent perpetrators. A meta-analysis found no evidence of an association between any one gene and aggression. Researchers calculated that thousands of genes interact in complex ways to determine aggressive behaviour and suggest there are multiple genetic influences on aggression.

Credit other relevant material.

## 12. Marks for this question: AO1 = 6, AO3 = 10

This question is level-marked:

Level	Marks	Description
4	13–16	<ul style="list-style-type: none"> <li>• Knowledge of institutional aggression in prison is accurate and generally well detailed.</li> <li>• Discussion is thorough and effective. Minor detail and/or expansion of argument is sometimes lacking.</li> <li>• The answer is clear, coherent, and focused.</li> <li>• Specialist terminology is used effectively.</li> </ul>
3	9–12	<ul style="list-style-type: none"> <li>• Knowledge of institutional aggression in prison is evident but there are occasional inaccuracies/omissions.</li> <li>• Discussion is mostly effective.</li> <li>• The answer is mostly clear and organised but occasionally lacks focus.</li> <li>• Specialist terminology is used appropriately.</li> </ul>
2	5–8	<ul style="list-style-type: none"> <li>• Limited knowledge of institutional aggression in prison is present.</li> <li>• Focus is mainly on description. Any discussion is of limited effectiveness.</li> <li>• The answer lacks clarity, accuracy, and organisation in places.</li> <li>• Specialist terminology is used inappropriately on occasions.</li> </ul>
1	1–4	<ul style="list-style-type: none"> <li>• Knowledge of institutional aggression in prison is very limited.</li> <li>• Discussion is limited, poorly focused or absent.</li> <li>• The answer as a whole lacks clarity, has many inaccuracies, and is poorly organised.</li> <li>• Specialist terminology is either absent or inappropriately used.</li> </ul>
	0	No relevant content.

### Possible AO1 content:

- Situational explanation: the deprivation model attributes institutional aggression to the prison itself, rather than the characteristics of the inmates.
- Research has found that certain prison conditions can increase aggression:
- Overcrowding: a study found that a greater prison population density significantly increased inmate–inmate violence rates.
  - Heat and noise: a study of students found that high temperature and high population density (which increased noise) increased negative emotions.
  - Job burnout: when prison staff are mentally exhausted from their job, the relationship with inmates and the overall running of the prison deteriorates, which is linked to violence.
  - Losses of freedom, autonomy, and security (deprivations) are associated with an increase in aggression. Inmates also lose access to goods and services and heterosexual relationships. The loss of goods increases competition between inmates to acquire them, which may result in violence.
- Dispositional explanation: the importation model says that prisoners import their criminal experiences, skills, and norms into the prison, all of which can create an aggressive environment. Many street gangs prioritise power and status, and this culture is then brought into prisons.
- Pre-prison gang membership is a predictor of violence and offending within prison. A study of 1000 inmates in US prisons found that those who were gang members before imprisonment committed more crimes within prison.
- Personality characteristics that relate to aggression in prison include anger and impulsivity, which are stronger predictors of aggression than ethnicity and type of offence committed. Prisoners with low self-control were found to be aggressive before and after imprisonment.

### Possible AO3 discussion:

- An analysis of 35 inmate homicides found they were motivated by deprivations. Arguments over drugs, relationships, and personal possessions led to the murders.
- A study of 371 US prisons found that oppressive conditions like overcrowding influenced prisoner violence towards inmates and staff.
- The prison governor of HMP Woodhill set up two units in the prison to reduce the hot, noisy, and overcrowded conditions. The changes virtually eradicated violence to staff and other inmates, supporting the situational explanation.
- The deprivation model is challenged by a study of over 24,000 inmates from 58 US prisons. Researchers analysed importation and deprivation data and concluded that only dispositional factors of race, age, and criminal history were predictors of prison violence.
- 561 male inmates with similar criminal histories and predispositions to aggression were randomly allocated to either a low security prison or the second highest category of prison. Researchers found no significant difference in the percentage of prisoners involved in aggressive misconduct within 2 years

(33% and 36%). This suggests that dispositional factors are a better predictor of institutional aggression than situational ones.

- The 'administrative control model' identifies that poor management and running of the prison is more influential in predicting violence than characteristics of inmates.

Credit other relevant material.

**13. Marks for this question: AO1 = 6, AO2 = 4, AO3 = 6**

This question is level-marked:

Level	Marks	Description
4	13–16	<ul style="list-style-type: none"> <li>• Knowledge of ethological explanations of aggression is accurate and generally well detailed.</li> <li>• Application is effective.</li> <li>• Discussion is thorough and effective.</li> <li>• Minor detail and/or expansion of argument is sometimes lacking.</li> <li>• The answer is clear, coherent, and focused.</li> <li>• Specialist terminology is used effectively.</li> </ul>
3	9–12	<ul style="list-style-type: none"> <li>• Knowledge of ethological explanations of aggression is evident but there are occasional inaccuracies/omissions.</li> <li>• Application and/or discussion is mostly effective.</li> <li>• The answer is mostly clear and organised but occasionally lacks focus.</li> <li>• Specialist terminology is used appropriately.</li> </ul>
2	5–8	<ul style="list-style-type: none"> <li>• Limited knowledge of ethological explanations of aggression is present.</li> <li>• Focus is mainly on description.</li> <li>• Any discussion and/or application is of limited effectiveness.</li> <li>• The answer lacks clarity, accuracy, and organisation in places.</li> <li>• Specialist terminology is used inappropriately on occasions.</li> </ul>
1	1–4	<ul style="list-style-type: none"> <li>• Knowledge of ethological explanations of aggression is very limited.</li> <li>• Discussion and/or application is limited, poorly focused, or absent.</li> <li>• The answer as a whole lacks clarity, has many inaccuracies, and is poorly organised.</li> <li>• Specialist terminology is either absent or inappropriately used.</li> </ul>
	0	No relevant content.

**Possible AO1 content:**

- The ethological explanation of aggression attempts to explain aggression in humans by studying aggression in animals. It suggests that aggression in animals is an instinct that has an adaptive function.
- Aggression is used for dominance within a social hierarchy. Dominant individuals can then mate and pass on the strongest genes. Additionally, the 'losers' will travel to another area and spread the competition for resources, which prevents starvation.
- Most aggression between the same species involves ritualistic displays of aggression rather than physical harm. Some animals have ritualistic appeasement displays to indicate they have accepted defeat, e.g. wolves expose their neck which ends the confrontation. Ritualistic aggression allows species to form hierarchies, without needing to wound or kill each other.
- Innate releasing mechanisms (IRM) are physiological processes, such as a network of neurons, that are activated by a 'sign stimulus' in the environment.
- Each species has its own sign stimulus, e.g. a cat seeing another cat in its territory.
- Upon seeing the sign stimulus, the IRM activates a fixed action pattern (FAP) of aggressive behaviours.
- An FAP is a set of aggressive behaviours in response to a sign stimulus and has certain characteristics:
  - Stereotyped: the aggressive behaviour always happens in the same way.
  - Universal: behaviours are the same in all members of a species.
  - Independent of experience: the behaviour is not learned.
  - Ballistic: once triggered, the FAP cannot be stopped.
  - Specific triggers: each FAP has a sign stimulus.
- Key study: stickleback fish get a red underbelly during mating season when they are most aggressive. A researcher made models of sticklebacks with varying degrees of realism and presented them to real sticklebacks.
- Regardless of how realistic the model was, if it had a red dot, the stickleback would attack it. Realistic models without a red dot were ignored. They found the attacks were unchanging and once triggered, they always ran their course.

**Possible AO2 application:**

- Cutie-Pie became aggressive when she encountered the sign stimulus of another cat in the garden.
- The sign stimulus of the cat triggered an innate releasing mechanism for aggression.
- The fixed action pattern of behaviour was not learned (different to her usual affectionate personality), and she displayed specific behaviours common to all cats who see a sign stimulus.
- Her aggressive behaviours included puffing up her fur and attacking the neighbour's cat.



### Possible AO3 discussion:

- Research demonstrating genetic and neurological evidence for human aggression supports ethological theories. The MAOA-L gene variant suggests there is an innate basis for aggression. Brain structures such as the limbic system have been shown to trigger aggression in response to environmental stimuli, which could be considered an IRM.
- Researchers found that Inuit used song duels to settle disputes, which prevented violence. The Yanomamö people of South America engage in ritualistic displays of aggression such as clubbing each other's heads to resolve conflicts. Despite appearing dangerous, the rituals prevent more extreme injury or death.
- Researchers point out that FAPs are influenced by environmental factors and learning. The duration of aggression varies from animal to animal, and even within the same animal depending on the situation. The flexibility of the FAP suggests that although aggression may be innate, it can change with experiences.
- The ethological explanation lacks validity for human aggression. Ethologists extrapolated from animal studies to humans, including warfare. Humans are sentient beings capable of conscious thought and with the capability of free will, which isn't accounted for by animal studies. FAPs are not observed in humans, with behaviour being varied and unpredictable. The motivation for aggression in humans is complex and moderated by factors such as political gain.

Credit other relevant material.

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## Questions on previous content

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### 1. Marks for this question: AO1 = 3

**3 marks** for a clear and coherent explanation using appropriate terminology.

**2 marks** for an explanation that lacks some clarity or detail.

**1 mark** for a brief or muddled explanation.

### Possible AO1 content:

- The 5% level of significance is the conventional level of probability employed by psychologists because it strikes a balance between the risks of making a Type I and Type II error.
- The 0.01 level of probability is too stringent and may cause a Type II error. This means the researcher has accepted the null hypothesis when the alternative is true.
- The 0.10 level of probability is too lenient and may cause a Type I error. This means the researcher has accepted the alternative hypothesis when the null is true.
- Higher levels of probability are used in clinical trials, but if research is investigating non-sensitive topics that are unlikely to affect health, the 0.05 level is acceptable.

Credit other relevant material.

## 2. Marks for this question: AO2 = 3

**3 marks** for a clear and coherent limitation of using a repeated measures design in a study where participants must recall facts about a crime from a video, using appropriate terminology.

**2 marks** for a limitation of using a repeated measures design in a study where participants must recall facts about a crime from a video that lacks some clarity or detail.

**1 mark** for a brief or muddled limitation of using a repeated measures design in a study where participants must recall facts about a crime from a video.

**0 marks** for general limitations of a repeated measures design without referring to the context.

### Possible AO2 application:

- The order effect of 'practice' would invalidate the results if the videos were the same. The videos would therefore need to be different and matched for similarity in terms of crime to avoid the order effect of 'practice', but one video may still be easier to recall than other, which would invalidate the results.
- Even if the videos were evenly matched for recall of the crimes, the participants are doing both conditions of the independent variable, so may display demand characteristics where they guess that their recall should be better/worse in a certain condition and behave in a way they think they should, which would invalidate the results.

Credit any valid limitation.

## 3. Marks for this question: AO3 = 4

This question is level-marked:

Level	Marks	Description
2	3–4	<ul style="list-style-type: none"> <li>• One strength <b>AND</b> one limitation of qualitative data is clear, appropriate, and effective.</li> <li>• There is appropriate use of specialist terminology.</li> </ul>
1	1–2	<ul style="list-style-type: none"> <li>• One strength <b>AND</b> one limitation of qualitative data is limited or muddled.</li> <li>• Use of specialist terminology is either absent or inappropriate.</li> </ul> <p><b>OR</b> only one strength <b>OR</b> one limitation is explained at Level 2.</p>
	0	No relevant content.

### Possible AO3 evaluation:

- Qualitative data tends to paint a rich and detailed picture of participants. External validity is high, as researchers gain a meaningful insight into the motivations of participants.
- Participants' responses may suggest further valuable lines of investigation.
- Analysis is slow, laborious, and often influenced by investigator bias, as subjective interpretation is required to draw conclusions.
- It is harder to make comparisons between groups, because often the data can't be summarised through descriptive statistics.

Credit any valid strength or limitation.

**4. Marks for this question: AO1 = 4**

**1 mark** to identify inter-observer reliability as the means of measuring the reliability of an observation.

A further **3 marks** for the following points:

- Two or more observers agree behavioural categories.
- They independently observe the same situation and tally behavioural categories.
- They compare their tallies using a Spearman's Rho test. If their scores correlate by 0.8 (accept 0.7) or more, then the observation is reliable.

Credit other relevant material.

**5. Marks for this question: AO1 = 4**

**1 mark** to identify a pilot study as a method to measure the validity of a questionnaire.

A further **3 marks** for any three of the following qualities of good questionnaire design:

- Use good questions that are open and/or closed.
- Include enough questions that the aim is met, but not so many that participants get bored and give up.
- Consider the sequence of questions; start easy, to relax participants.
- Potentially use filler (irrelevant) questions to hide the true aim.

Credit other relevant material.