SimplyPsychology

Mark scheme — A-level Psychology 7182/3

Paper 3 · Section D option · Aggression

A-level topic mock · 2026 · Maximum mark: 48

Aggression is A-level only (AQA spec 4.3.8) — it is a Paper 3 option and is not assessed at AS. Indicative content is not exhaustive; credit any other valid points. Levels-based questions (Q10 and Q11) require holistic judgement using the descriptors — match the answer to the band that best fits, then fine-tune within it. Specialist vocabulary (limbic system, amygdala, serotonin, testosterone, MAOA gene, innate releasing mechanism, fixed action pattern, frustration-aggression hypothesis, social learning theory, de-individuation, dispositional/situational, importation/deprivation, desensitisation, disinhibition, cognitive priming) follows AQA's 2025 wording. **Note (2025 spec):** *no content was removed* from Aggression in 2025 — the whole topic remains examinable.

D Aggression

0 1

AO1 · 1 mark · multiple choice

> *Which one of the following hormones has been most strongly associated with increased aggression?*

Answer: B — Testosterone.

Testosterone (an androgen) has been linked to aggression, particularly in males. A (cortisol) is a stress hormone; C (oxytocin) is associated with bonding/affiliation; D (melatonin) regulates the sleep–wake cycle.

0 2

AO1 · 1 mark · multiple choice

> *Which one of the following best describes a fixed action pattern?*

Answer: B — A stereotyped, innate behaviour sequence triggered by a specific stimulus.

A is the opposite of a FAP (which is innate and universal, not learned/variable); C describes desensitisation; D describes the frustration-aggression hypothesis.

0 3

AO1 · 1 mark multiple choice

> *Which one of the following best describes de-individuation?*

Answer: C — A loss of personal identity and reduced accountability in a group or crowd.

A describes desensitisation; B describes cognitive priming; D describes social learning theory (imitation of a reinforced model).

---

0 4

AO1 · 3 marks short answer

> *Outline the role of genetic factors in aggression. Refer to the MAOA gene.*

Marks for this question: AO1 = 3 marks

- **1 mark** — twin/adoption studies show aggression is partly heritable (higher concordance in MZ than DZ twins).
- **1–2 marks** — the **MAOA gene** controls the enzyme monoamine oxidase A, which breaks down neurotransmitters (e.g. serotonin) after synaptic transmission. A low-activity variant (**MAOA-L**, the "warrior gene") is associated with higher aggression; **Brunner et al. (1993)** found a Dutch family with an MAOA deficiency and a history of violent behaviour.
- **1 mark** — for gene–environment interaction, e.g. **Caspi et al.**: MAOA-L was linked to aggression mainly in those who had also experienced childhood maltreatment.

---

0 5

AO2 · 4 marks application

> *Use your knowledge of media influences on aggression to explain Ryan's behaviour.*

Marks for this question: AO2 = 4 marks

- **4 marks** — clear, coherent application of two or more media mechanisms to the stem, using accurate terminology.
- **3 marks** — effective but one mechanism less developed.
- **2 marks** — one mechanism applied to the stem.
- **1 mark** — brief/partial.

Indicative content:

- **Desensitisation**: repeated exposure to game violence has reduced Ryan's emotional and physiological response, so he "no longer seems shocked by violence on the news".
- **Disinhibition**: the games *reward* violence with points, presenting aggression as acceptable and normative; this weakens Ryan's usual social inhibitions against behaving aggressively.
- **Cognitive priming**: repeatedly rehearsing violent content stores aggressive "scripts"/schemas in memory, which are then triggered as a ready response when Ryan is "frustrated".

Top-band answers name the mechanisms AND tie each to a specific detail of Ryan's behaviour.

---

0 6

AO2 · 4 marks application

> *Use dispositional and situational explanations to explain the aggression at Eastgate Prison.*

Marks for this question: AO2 = 4 marks

- **4 marks** — both explanations accurately identified and applied to the stem.
- **3 marks** — both applied, one less developed.
- **2 marks** — one explanation applied accurately.
- **1 mark** — brief/partial.

Indicative content:

- **Dispositional — the importation model**: inmates "import" their own violent characteristics, values and histories into the prison. This fits the claim that violence is high because the prison "houses many inmates who were already violent and aggressive before they arrived".
- **Situational — the deprivation model**: aggression is caused by the prison environment itself — the "pains of imprisonment" (deprivation of liberty, autonomy, goods and services). This fits the claim that the "harsh, overcrowded conditions and the lack of meaningful activity" cause the aggression.

Credit explicit use of both halves of the stem and the correct labelling of each explanation.

---

0 7

AO1 · 4 marks short answer

> *Outline the ethological explanation of aggression. Refer to innate releasing mechanisms and fixed action patterns.*

Marks for this question: AO1 = 4 marks

- **1 mark** — ethology studies animal behaviour in natural settings; it views aggression as **innate and adaptive** (e.g. establishing dominance hierarchies and territory).
- **1–2 marks** — an **innate releasing mechanism (IRM)** is a built-in neural network that is activated by a specific **sign stimulus** (e.g. a rival male).
- **1–2 marks** — the IRM triggers a **fixed action pattern (FAP)**: a stereotyped, universal, innate sequence of behaviours that, once triggered, runs to completion (it is "ballistic"). Lorenz noted that much animal aggression is ritualistic, ending in appeasement rather than death.

Award up to 4 marks across the IRM and FAP, plus the general ethological premise.

---

0 8

AO1 · 3 marks short answer

> *Briefly outline the evolutionary explanation of human aggression.*

Marks for this question: AO1 = 3 marks

- **1 mark** — aggression is seen as an **adaptive** behaviour that increased ancestors' survival and reproductive success, and so was naturally selected.
- **1–2 marks** — examples: competing for **resources** and **status/dominance**; **sexual jealousy / mate retention** — male aggression as a response to paternity uncertainty (e.g. mate-guarding behaviours described by Wilson & Daly); deterring rivals and infidelity.

Award up to 3 marks for the adaptive premise plus at least one explained example.

---

0 9

AO1 · 3 marks short answer

> *Outline desensitisation, disinhibition and cognitive priming as explanations of how the media influences aggression.*

Marks for this question: AO1 = 3 marks

- **Desensitisation**: repeated exposure to media violence reduces the emotional and physiological response to it, so aggression comes to seem normal and less wrong.
- **Disinhibition**: when media portray violence as acceptable, justified or rewarded, the usual social constraints against aggression are weakened.
- **Cognitive priming**: violent media provide aggressive "scripts"/schemas that are stored in memory and later triggered by environmental cues.

Award 1 mark for each accurately outlined mechanism.

1 0

AO1, AO3 · 8 marks 8-mark

> *Discuss neural and hormonal mechanisms in aggression. Refer to at least one strength and one limitation.*

Marks for this question: AO1 = 4 marks, AO3 = 4 marks

Level	Marks	Descriptor
4	7–8	Knowledge of neural and hormonal mechanisms is accurate and well detailed. Evaluation includes at least one strength and one limitation, both effectively explained. Clear, coherent, focused; specialist terminology used effectively.
3	5–6	Knowledge generally accurate; evaluation mostly effective but limited in places. Reasonable structure.
2	3–4	Some accurate knowledge. Evaluation limited; mainly descriptive.
1	1–2	Knowledge limited or muddled. Little or no evaluation.
0	0	No relevant content.

Indicative AO1 content:

- **Limbic system**: structures such as the **amygdala** are central to how we assess and respond to threat; greater amygdala reactivity is linked to reactive aggression (e.g. Gospic et al.), and limbic damage/stimulation alters aggression in animals.
- **Serotonin**: normal serotonin exerts an inhibitory, calming effect on the prefrontal cortex; **low serotonin** reduces this self-control, increasing impulsive aggression.
- **Testosterone**: this androgen is linked to aggression, particularly in males (e.g. Dabbs et al. found higher testosterone in more violent offenders); it may act on areas such as the amygdala.

Indicative AO3 content:

- **Strength — supporting evidence**: drug studies that raise serotonin tend to reduce aggression, and animal and brain-imaging studies support the roles of the amygdala and serotonin, giving the explanation objective, experimental support.
- **Limitation — much hormone evidence is correlational**: high testosterone is often *associated* with aggression, but aggression (e.g. winning a confrontation) can itself raise testosterone, so cause and effect are unclear.
- **Limitation — reductionist / incomplete**: reducing aggression to brain structures and chemicals ignores social and environmental factors (de-individuation, SLT, media); aggression is better explained by combining biological and social factors.
- **Limitation — inconsistent findings and animal extrapolation**: the testosterone–aggression link is weak or inconsistent in some human studies, and much evidence comes from animals, which may not generalise to complex human aggression.

1 1

AO1, AO2, AO3 · 16 marks 16-mark

> *Discuss social psychological explanations of aggression. Refer to the case of Kai as part of your discussion.*

Marks for this question: AO1 = 6 marks, AO2 = 4 marks, AO3 = 6 marks

Level	Marks	Descriptor
4	13–16	Knowledge of social psychological explanations is accurate and generally well detailed. Application to Kai is effective and integrated across the stem. Discussion is thorough and effective. Clear, coherent and focused; specialist terminology used effectively.
3	9–12	Knowledge evident with some accuracy. Application mostly effective. Discussion mostly effective but limited in places.
2	5–8	Some accurate knowledge of one or more explanations. Application limited. Discussion superficial / mainly descriptive.
1	1–4	Knowledge limited; little or no application or discussion.
0	0	No relevant content.

Indicative AO1 content — credit any of the explanations (a good answer covers two or more):

- **Social learning theory (Bandura)**: aggression is learned by **observing** and **imitating** models, especially when the model is reinforced (**vicarious reinforcement**); mediated by attention, retention, reproduction and motivation. Demonstrated by the Bobo doll studies.
- **The frustration-aggression hypothesis (Dollard et al. 1939)**: frustration (being blocked from a goal) creates an aggressive drive that is released, often **displaced** onto a safer target. **Berkowitz's** revision: frustration creates a *readiness* for aggression that environmental **aggressive cues** (e.g. weapons) trigger.
- **De-individuation**: in crowds, the **anonymity** and reduced self-awareness lead to a loss of personal identity and reduced sense of accountability, releasing aggressive behaviour normally inhibited.

Indicative AO2 content — engagement with Kai:

- **SLT**: Kai observes his older brother being aggressive and seeing him "respected and even feared" as a result = **vicarious reinforcement**, which makes Kai more likely to imitate aggression.
- **De-individuation**: being part of a "large, anonymous crowd" reduces Kai's personal identity and accountability, which explains why he "joins in" despite having "never been in a fight before".
- **Frustration-aggression** (if used): the charged, confrontational situation provides aggressive cues that release aggression.

Indicative AO3 content:

- **Strength — research support for SLT**: Bandura's Bobo doll studies showed children imitated aggression they had observed, and imitated more when the model was rewarded — strong experimental support for observational learning of aggression.
- **Strength — research support for de-individuation**: studies such as Diener et al. (Halloween) and analyses of crowd/football violence show anonymity increases aggression, and Zimbardo's work supports

reduced accountability in groups.

- **Limitation — methodological problems**: the Bobo doll studies were lab experiments open to demand characteristics, and a doll is not a person, so they may lack ecological validity as evidence of real interpersonal aggression.
- **Limitation — frustration does not always lead to aggression**: people respond to frustration in many ways (e.g. withdrawal, determination), so the original hypothesis is too simplistic — Berkowitz's reformulation is needed.
- **Limitation — reductionism / ignores biology**: social explanations downplay biological factors (testosterone, the amygdala, the MAOA gene); the fullest account is interactionist, combining social and biological influences.
- **Strength — real-world application**: SLT implies reducing aggressive models (e.g. in media) could lower aggression, and de-individuation research supports measures that reduce anonymity (e.g. CCTV, name badges) to curb crowd violence.

Top-band answers will (1) describe at least two social psychological explanations accurately; (2) map Kai's imitation of his "respected and feared" brother onto SLT/vicarious reinforcement and his behaviour in the "anonymous crowd" onto de-individuation; (3) evaluate with named evidence (Bandura, Diener/Zimbardo) and at least one limitation; and (4) reach a clear conclusion — typically that social psychological explanations are well supported and have useful applications, but are incomplete without the biological factors, pointing to an interactionist account.

END OF MARK SCHEME · Maximum mark: 48