15.2 Ethological and Evolutionary Explanations of Aggression: Test Pack

AQA 7182 · about 15 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions.

1 Outline what is meant by an innate releasing mechanism (IRM) as used in ethological explanations of aggression. Name key features of an IRM and how it operates in response to environmental cues.

(Total for Question 1 is 2 marks)

2 Outline how appeasement displays in animals can reduce escalation of conflict, and give one short contrasting point about how human social institutions can replace or alter the role of such displays.

(Total for Question 2 is 3 marks)

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3 Outline how ritualistic aggression and appeasement displays function in non-human animals and explain their adaptive value in terms of survival and reproductive fitness.

(Total for Question 3 is 3 marks)

4 Explain what is meant by 'β bias' in evolutionary explanations of aggression and give one short example of how β bias might affect conclusions about sex differences in aggression.

(Total for Question 4 is 3 marks)

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Mark scheme · 15.2 Ethological and Evolutionary Explanations of Aggression: Test Pack

Question 1

states that an IRM is an internal biological mechanism that responds to specific external stimuli or releasers oe	**B1**
states that IRMs trigger instinctive behavioural sequences such as fixed action patterns when the releaser stimulus is present oe	**B1**

Answer: An IRM is an internal, biologically based trigger that responds to particular external stimuli, releasing an innate behavioural response; IRMs detect releaser cues and activate fixed action patterns such as ritualised aggression.

Question 2

outlines how appeasement displays, such as submissive postures or grooming, signal non-threat and reduce the need for physical fighting oe	**M1**
explains adaptive outcome: reduces injury risk and conserves energy, settling disputes via communication rather than force oe	**A1**
gives contrasting human point: social institutions, laws or mediation can fulfil a similar conflict-reducing role and can make overt appeasement displays less necessary or change their form oe	**A1**

Answer: Appeasement displays signal non-threat and help resolve conflicts without fighting, reducing injury and saving energy. In humans, institutions like legal systems or formal mediation can replace or modify these functions, reducing the reliance on instinctive appeasement behaviours.

Question 3

describes ritualistic aggression and appeasement as patterned displays, such as threat postures, vocalisations, or submissive gestures that reduce the chance of full fighting oe	**M1**
explains adaptive value: these displays reduce risk of injury and conserve energy, so individuals survive longer and have better reproductive prospects oe	**A1**
notes signalling function: displays communicate status, intent or strength, helping resolve disputes without costly fights and so improving fitness oe	**A1**

Answer: Ritualistic aggression and appeasement are patterned displays, like threat postures or submissive gestures, that resolve disputes without full fighting. They are adaptive because they reduce the risk of injury and save energy, and they communicate status or intent to avoid costly battles, which aids survival and reproductive success.

Question 4

defines β bias correctly, e.g. ignoring or minimising sex differences and assuming male-based findings generalise to females oe	**M1**
gives a relevant example, e.g. evolutionary accounts focusing on male-male competition may assume female aggression is the same or marginal, overlooking female-specific strategies such as indirect aggression oe	**A1**
explains consequence: this can lead to incomplete theories and misinterpretation of data about aggression across sexes oe	**A1**

Answer: Beta bias is the tendency to assume male-based research or theories apply equally to females. For example, if evolutionary accounts emphasise male-male physical competition, they may overlook female strategies like indirect aggression or context-dependent aggression, producing incomplete or biased conclusions.

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