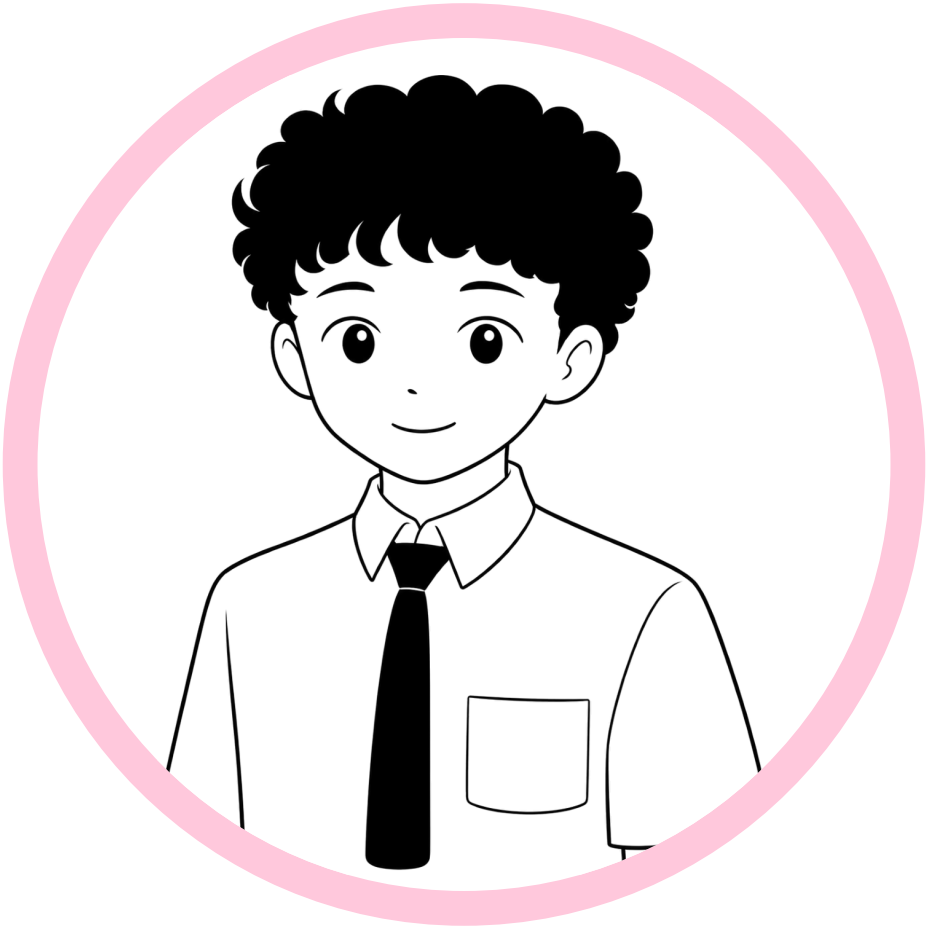
AQA A-LEVEL PSYCHOLOGY · 7182

# PSYCHOLOGY



## MARK SCHEME

### 3.3.1 THE NATURE-NURTURE DEBATE

| SCORE | PERCENTAGE |
| --- | --- |
| /48 | % |

STEMUP

# These questions belong to AQA, not to us.

The examination questions, mark schemes and examiner reports in this pack were written and published by AQA. They are past assessment materials, reproduced here so that students can revise from them.

## What we do not own

STEMUP is not affiliated with AQA and does not own, and makes no claim to own, any of the question, mark scheme or examiner report material in this pack. AQA has not endorsed, approved or been involved in the production of it. AQA and the qualification titles used here belong to their respective owners and appear for identification only.

## Where to find the originals

AQA publishes its past papers, mark schemes and examiner reports free of charge. Always check the current specification at aqa.org.uk before you revise, because content and wording can change between series.

If you hold the rights to any material in this pack and would like it amended or removed, contact admin@stemup.co.uk and we will act on it.

## Q1.

**[AO1 = 2]**

**2 marks** for the possibility that behaviour is governed by nature (genes etc) and by nurture (eg environment, experiences etc) and reference to the debate being about the relative contribution of each of these influences.

**1 mark** for reference to the possibility that behaviour is governed by nature (genes etc) and (or) by nurture (eg environment, experiences).

**0 marks** for focus solely on one possible explanation (nature or nurture) or no relevant content.

## Q2.

(a) **[AO2 = 2]**

**1 mark** appears to support the nature side of the debate.

**Plus**

**1 mark** because the concordance rate is stronger in the identical twins where there is greater genetic relatedness (or nurture must also play a role – not 100% concordance).

Full credit can be awarded to answers which argue for mathematical ability being partly due to nurture as both percentage concordance rates are less than degree of genetic relatedness.

(b) **[AO2 = 4]**

| Level | Marks | Description |
|---|---|---|
| 2 | 3 – 4 | Answer focuses clearly on concurrent validity. How a correlational test would be used to determine the relationship between the two sets of scores is clearly described with reference to calculation of a correlation coefficient and need for a significant positive correlation. |
| 1 | 1 – 2 | Answer focuses on validity. How a correlational test would be used to determine the relationship between the two sets of scores is partly described. The answer lacks accuracy and detail. |
| | 0 | No relevant content. |

**Content:**

- concurrent validity would involve correlating the results on the maths test with results for the same group of people on an established maths reasoning test
- A Spearman's rho or Pearson's r test should be used for the two sets of



STEMUP.CO.UK

test results
- if the mathematical ability test is valid then there should be a significant positive correlation between the two sets of test scores at the 0.05 level.

## Q3.

(a) **[AO2 = 6]**

| Level | Marks | Description |
|---|---|---|
| 3 | 5 – 6 | There is accurate and detailed knowledge of determinism with appropriate reference to three different types of determinism. Most of the application to the stem is clear and effective. The answer is coherent and well organised with effective use of specialist terminology. |
| 2 | 3 – 4 | There is some relevant knowledge of determinism and types of determinism and some appropriate application to the stem. The answer is mostly clear and organised, with appropriate use of specialist terminology. |
| 1 | 1 – 2 | Knowledge of determinism and/or types of determinism is muddled but can be inferred. Application is limited/absent. Specialist terminology is either absent or inappropriately used. |
| | 0 | No relevant content. |

**Content and application:**
- determinism – understanding that behaviour is controlled and we do not exercise free will over our own behaviour
- biological determinism – behaviour is controlled by aspects of biology eg genes, chemicals etc – depression 'runs in families' implies biological determinism
- environmental determinism – behaviour is controlled by external influences eg parents, society etc – 'serious social problems' implies environmental determinism
- psychic determinism – behaviour is controlled by unconscious fears, desires etc – 'experienced traumatic events in the past' implies psychic determinism

Credit also appropriate references to hard and soft determinism

(b) **[AO2 = 2]**

**1 mark** – nature is indicated by reference to genetic inheritance 'runs in families'

Plus

**1 mark** – nurture is indicated by reference to environment or experience 'serious social problems', 'traumatic events in the past'.

## Q4.

**[AO1 = 6 AO3 = 10]**



STEMUP.CO.UK

| Level | Marks | Description |
|---|---|---|
| 4 | 13 – 16 | Knowledge of the nature-nurture debate is accurate and generally well detailed. Discussion is thorough with effective use of topics. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and/or expansion of argument sometimes lacking. |
| 3 | 9 – 12 | Knowledge of the nature-nurture debate is evident. There are occasional inaccuracies. Discussion is apparent and use of topics is mostly effective. The answer is mostly clear and organised. Specialist terminology is mostly used effectively. Lacks focus in places. |
| 2 | 5 – 8 | Some knowledge of the nature-nurture debate is present. Focus is mainly on description. Any discussion or use of topics is only partly effective. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions. |
| 1 | 1 – 4 | Knowledge of the nature-nurture debate is limited. Discussion/use of topics is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology either absent or inappropriately used. |
| | 0 | No relevant content. |

**Possible content:**

- Debate about the relative importance of heredity and environment in determining behaviour
- Nature side of the debate assumes heredity is more important
- Nurture side of the debate assumes environment and experience is more important
- Nature aspect is rooted in nativist theory that knowledge/abilities are innate
- Nurture rooted in empiricist theory that knowledge derives from learning – Locke's view of the mind as a 'tabula rasa' or blank slate on which experiences are written

**Possible discussion points:**

- Use of evidence to support the influence of nature eg twin studies showing higher concordance for MZ pairs than DZ pairs
- Use of evidence to support the influence of nurture eg studies of social learning
- Need to take an interactionist approach rather than a dichotomous view
- Links with approaches in psychology eg how the biological approach supports the nature side of the debate
- Use of examples from topics to support arguments

Credit other relevant material.

## Q5.

**Marks for this question: AO1 = 6, AO3 = 10**

| Level | Marks | Description |
|---|---|---|
| 4 | 13 – 16 | Knowledge is accurate and generally well detailed. Discussion / evaluation / application is thorough and effective. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and / or expansion of argument sometimes lacking. |
| 3 | 9 – 12 | Knowledge is evident. There are occasional inaccuracies. Discussion / evaluation / application is apparent and mostly effective. The answer is mostly clear and organised. Specialist terminology is mostly used effectively. Lacks focus in places. |
| 2 | 5 – 8 | Some knowledge is present. Focus is mainly on description. Any discussion / evaluation / application is only partly effective. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions. |
| 1 | 1 – 4 | Knowledge is limited. Discussion / evaluation / application is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology either absent or inappropriately used. |
| | 0 | No relevant content. |

Please note that although the content for this mark scheme remains the same, on most mark schemes for the new AQA Specification (Sept 2015 onwards) content appears as a bulleted list.

**AO1**

Marks for demonstrating knowledge and understanding relevant to the nature-nurture debate, including explanations of behaviour relating to both nature and nurture; knowledge and understanding of relevant terminology such as nativism, empiricism, interactionism, shared and non-shared environments, pre- and post-natal environments; active-passive environments; heritability co-efficient; methods of research used in relation to the debate, the standing of different approaches is psychology in relation to the debate.

**AO3**

Marks for discussion, analysis and application of the debate to behaviour. Behaviour will most likely emerge from topic areas such as schizophrenia and children's thinking, but accept other examples such as PKU and language. Discussion may include the difficulties of establishing the relative contributions of nature and nurture, the implications of the debate for the prediction and control of behaviour, theoretical and methodological complexities including twin studies and the need to take an



STEMUP.CO.UK

interactionist approach. Credit references to approaches and to other debates in psychology.
Credit use of relevant evidence.

## Q5.

Students generally demonstrated sound knowledge and understanding of the nature-nurture debate and were able to use relevant terminology correctly. It was also evident that students were knowledgeable about the standing of different approaches in psychology in relation to the debate.

Disappointingly, some students seemed to be writing a ‘pre-prepared’ essay on the nature-nurture debate which did not quite fit the question, again illustrating the requirement to read the question carefully and plan an answer to the specific question set. The answer required reference to the statement which concerned the interaction between nature and nurture. Many answers did refer to interactionism, often using appropriate examples such as Phenylketonuria (PKU), schizophrenia and / or language development. However, some students offered little or no discussion of the interaction of nature and nurture and this restricted the marks that could be awarded. The skill of using topics / approaches / research to illustrate points raised in the essay on the nature-nurture debate seems to be improving. However, some answers still begin to read like a PSYB3 answer where, for example, there might be a whole page on theories of crime, with detailed outline of research followed by evaluation of the research, with the focus of the debate lost. The best answers made clear but succinct references to topic areas / research in order to illustrate the debate.