

**Annotation:**

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This is an essay question where AO1, AO2, AO3 have equal emphasis (all are worth 4 of the 12 available marks). You should judge the AO1 and award a level, judge the AO2 and award a level, and judge the AO3 and award a level. Then an overall level of best-fit should be found, with equal emphasis on AOs. Start at the middle mark (e.g. 5 marks in level 2), then move up or down depending on the relative strength of the AO1, AO2, and AO3 content.

AO1 - Level 2 â## Demonstrates mostly accurate knowledge and understanding

AO2 - Level 3 â## Line(s) of argument supported by applying relevant evidence from the context (scientific ideas, processes, techniques & procedures). Might demonstrate the ability to integrate and synthesise relevant knowledge

AO3 - Level 2 â## Candidates will produce statements with some development in the form of mostly accurate and relevant factual material, leading to a superficial conclusion being made

Overall level 2. Start at 5 marks and AO2 moves it up to 6 marks.

Overall: Level 2 - 6 marks

## SECTION C

## Issues and Debates

- 5 Ada was reading a book about a woman who became a police officer and solved an important crime. She enjoyed reading the book so much that she read it all in a single day. Ada's mum has always really enjoyed reading books and Ada had always had excellent reports from school about her reading development.

Ada's friend Daniel does not enjoy reading and never has. He told Ada that he preferred to play video games, particularly games about sport. Daniel's dad enjoys reading and playing video games. When he was younger, Daniel had been asked to read more by his school and was always given extra support for his reading development.

Evaluate the extent to which human behaviour, such as the ability to read, can be explained by biological psychology.

VS SLT

4A01 4A02 4A03

You must make reference to the context in your answer.

(12)

Biological psychology may account for human behaviour such as the ability to read via genetics. Ada may have inherited a gene from her mother that improves her ability to read compared to those who do not possess the gene e.g. Daniel. Furthermore this may explain why she "always" had excellent reports, as this suggests this has originated since birth.

A strength of genetics as an explanation for human behaviour is the MAO-A gene commonly associated with aggression. Brunner found that several generations of the same Dutch family had all been convicted of serious offences and violent.



also all possessed the MAO-A gene. Therefore genes may determine human behaviour.

Biological psychology can also explain human behaviour through the interaction of neurotransmitters. Dopamine is an excitatory neurotransmitter that is associated with pleasure and serotonin is an excitatory neurotransmitter that ~~can be as~~ is associated with happiness. Ada may have higher levels of dopamine and serotonin when reading giving her a euphoric effect which may lead her to regularly reproduce the behaviour of reading. On the other hand, Daniel may feel no effect when reading and only reaches the 'high' when playing video games.

This can be supported by drug theories and therapies as drugs like cocaine induce higher levels of dopamine by blocking dopamine receptors, prolonging the pleasure effect. Furthermore, ~~this~~ this can suggest why people take recreational drugs repeatedly to gain this euphoric effect.

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27

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On the other hand social learning theory may be better at explaining human behaviours such as reading. Both Ada and Ada's mum are girls and Daniel and Daniel's dad are boys. Bandura stated that behaviours are more likely to be repeated if the role models displaying the behaviours are the same-sex ~~one of~~ and are viewed of high authority which parents often are. This may explain why Ada has a greater ability to read, as she reproduces her mum's behaviour of reading and furthermore is positively reinforced. Whereas Daniel reproduces ~~his~~ his dad's behaviour of video games and as he receives positive punishment such as nagging by teachers to read more he is less likely to repeat the behaviour.

In conclusion, the biological explanation for reading is limited as it cannot explain why Daniel does not enjoy reading like his dad. ~~The~~ Social learning theory is more likely to accurately explain why certain



behaviours are repeated or not via direct reinforcement or punishment and parental behaviours.

(Total for Question 5 = 12 marks)

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P 7 1 9 2 1 R A 0 2 9 3 6

29

Turn over ►