AQA Psychology A-Level

Option 2: Eating Behaviour

Essay Plans

Discuss the evolutionary explanation for food addiction. (16 MARKS)

AO1	• Early humans ate the plants and animals that were in their natural environment- surviving required significant energy resources, so fatty foods that were animal based were preferred. A vegetarian diet likely would not have provided enough nutrients for them to involve into the complex creatures they have become. • Calories and readily accessible sugar are associated with sweet foods, which for early humans would be ripe fruit, as s result, it was adaptive for them to develop a preference for sweet foods. • Taste aversion develops after eating things that are toxic, poisonous or spoiled. This causes the animal to avoid eating the food that made them sick, which is adaptive as it would have helped our ancestors to survive. • Neophobia is an aversion to trying new foods, and this is a natural reaction that exists to protect us from being poisoned. This, in modern times, can be related to culture and related diet- individuals may have (due to culture), views on what food should be like, and so may avoid things that do not fit that description. • Generally neophobia applies to food that is animal based rather than plant based, due to the greater risk posed by things like rotting meat.
AO3	1. Neophobia can actually be maladaptive, despite the obvious advantages it has for humans. Restricting your diet due to a fear of trying new foods can potentially prevent individuals from receiving sufficient nutrients. 2. The radiation used to treat cancer can cause gastrointestinal illnesses, which can result in taste aversion. A new technique, based on research into taste aversion involves giving cancer patients both familiar food and new food, the patient develops an aversion to the new food, but not the familiar and so maintain their appetite during treatment. 3. Support has been found to support the notion of an evolved preference for sweet foods. Infants who first taste something sweet show acceptance to the sweet food, by smiling and licking their upper lips. This response is innate, proving that our for sweet foods is innate (Grill and Norgren, 1978). 4. Not all food preferences, however, can be traced back to evolution. Commonly today, a beneficial dietary habit, is to consume foods that are low in cholesterol. But foods that were rich in saturated fats that were beneficial to our ancestors are high in cholesterol and wouldn't necessarily be consumed as readily by us now. This indicates that evolution cannot explain all food preferences. 5. It is argued by Alcock et al (2014) that food preferences evolved as an adaptive response to gut microbes. Pain of colic causes babies to cry out, so parents feed them more, increasing the supply of nutrients to their gut microbes. This suggests that food preferences were no for the individual themselves, but to enhance the survival of gut microbes, showing evolutionary mechanisms at work.

Marciel is explaining to Jade what he and his family from the Philippines eat. They eat sapin-sapin, a rice and coconut dessert. Jade explains that she and her family love fish and chips.

Outline and evaluate the roles of social and cultural influences on food preferences. Refer to Marciel's and Jade's conversation in your conservation. (16 MARKS)

AO1	• According to classical conditioning, we associate many foods that we eat as adults with happiness that we experienced whilst growing up. This may be because eating a certain food meant that relatives were coming over, and this enjoyable experience creates an association between the food and happiness. • Children acquire their eating behaviour in part from observing the behaviour of their parents.(Social Learning Theory). Parents may also manipulate the availability of certain foods, as a reward (give them cake as a 'treat'), or due to a perceived health gain (Operant Conditioning) They may also offer one food as the reward for eating another, but this tends to decrease preference for the distasteful food. • Culture and related diet may cause neophobia, which is a fear of trying new food Individuals may, due to culture have views on what food should be like, and so avoid food that doesn't fit that description.
AO2	• Marciel eats sapin-sapin, a traditional dish common to the Philippines, where his family are from. It is likely that these cultural dishes were eaten when family came over, and such experiences were enjoyable, increasing hsis preference for the dishes. • Jade's family enjoy eating fish and chips- a type of food different to what is enjoyed by Marciel's family which could be explained by them coming from different cultures. Marciel is from the Philippines, and Jade's family is from the West.
AO3	1. The learning explanation can explain multiple influences, giving it explanatory power. An example of this is the innate aversion to spicy foods that is prevalent across all cultures- but we still enjoy spicy foods. This is because in cultures where chilli is common, children are gradually exposed to it so they develop a preference for it. This is explained by the learning theory as being the influence of both family and culture on food preferences in young children. 2. Research has been conducted to support the influence of culture on food preferences. In western culture, there is increasing availability of food outside of home which has led to family mealtimes' and cooking. This has been reflected in 46% of food spending being on 'eating out', showing that cultural changes influence the foods that people prefer. 3. Whilst the influence of families on preferences appears to last for potentially a lifetime, the effects of social influences such as TV and the media, do not seem to be as persistent. Hare-Braun (2011) found that children who watched the most TV had unhealthy food preferences, but this link was weaker after 6 years, disappearing altogether in girls. This suggests that as children grow up the preferences of their peers becomes more influential in their own decisions about food.

Many psychologists believe that anorexia nervosa runs in families. Others argue that most cases are due to chemical imbalances in the brain.

Describe and evaluate one or more biological explanations for anorexia nervosa. Use research evidence in your answer. (16 MARKS)

AO1	• There may be a genetic basis for anorexia, with twin studies done by Holland et al showing that mz twins have a concordance rate of 56% for the development of AN, but only 5% dz twins. The fact that the closer the degree of genetic similarity increases the chances of AN developing, indicates a genetic basis for the disorder. • In addition to this, candidate genes that could potentially be associated with anorexia nervosa have been found by researchers. Zeeland et al (2014) found that of these candidate genes, one was significantly associated with the disorder and this is Ephx2. This codes for an enzyme that is involved with the metabolism of cholesterol, which is significant as individuals with severe symptoms of the disorder have abnormally high levels of cholesterol. • AN may have a neural basis, and imbalances of the neurotransmitters dopamine and serotonin may cause it. The main metabolite of serotonin is 5-HiAA, and of dopamine is HVA. Serotonin has been implicated in behaviour like obsessiveness. Low levels of 5-HiAA have been found by Bailer and Kaye (2011) in anorexics, indicating that there is a reduced serotonin in individuals with anorexia nervosa. • In addition to this, Kaye et al (1991) found HVA to be lower in individuals who has recovered from anorexia nervosa than control groups. Eating food increases dopamine, which was found by Bailer (2012) to cause anxiety in anorexic individuals. As a result, they restrict food intake to reduce the anxiety caused by eating.
AO3	1. Twin studies, however, assume that both mz and dz twins experience 'equal environments', but this may not be the case. In fact, mz twins are treated more similarly that dz twins are, which means that the greater environmental similarity experienced by mz twins may actually be the cause of increased concordance rate for mz twins. This means that the influence of biological factors may not be as great as twin studies suggest. 2. It is suggested that the diathesis-stress model best explains the relationship between biological factors and the onset of the disorder. This model suggests that genes create a vulnerability for the disorder in individuals and it is only following an activating event- a stressor does the disorder manifest in these vulnerable individuals. 3. The dopamine explanation for anorexia nervosa has been supported by research conducted by Kaye et al (1999) who found that recovered anorexics do have lower levels of HVA. Kaye's study avoids confounding variables associated with such studies, by not measuring HVA in individuals who are still experiencing symptoms. So, the fact that low HVA still persists after recovery, can be taken to prove that dopamine imbalances cause AN. 4. But, other NTs have been implicated in AN and serotonin alone cannot be used to distinguish between those with AN and those without it. As a result, anorexia nervosa is better explained as being a reaction between serotonin and noradrenaline. This is because neurotransmitters do not operate alone, but rather there are complex interactions between different interactions.

Lillia is 14 and her mum has had depression and eating disorders since Lillia was small. Lillia and her mother often shop together for food and eat together, although her mum rarely finishes a meal. Her dad often talks about how beautiful her mum is and comments on how similar Lillia and her mum are.

Discuss one biological and one psychological explanation for anorexia nervosa. Refer to Lillia and her mum in your answer. (16 MARKS)

AO1	• There may be a genetic basis for anorexia, with twin studies done by Holland et al showing that mz twins have a concordance rate of 56% for the development of AN, but only 5% dz twins. The fact that the closer the degree of genetic similarity increases the chances of AN developing, indicates a genetic basis for the disorder. • In addition to this, candidate genes that could potentially be associated with anorexia nervosa have been found by researchers. Zeeland et al (2014) found that of these candidate genes, one was significantly associated with the disorder and this is Ephx2. This codes for an enzyme that is involved with the metabolism of cholesterol, which is significant as individuals with severe symptoms of the disorder have abnormally high levels of cholesterol. • The social learning theory suggests that anorexia nervosa is a learned behaviour, learned through classical and operant conditioning. A model provides behaviour that an individual imitates, this model may be a real person, or someone that exists only in fiction like a TV character. This model must present positive consequences of their behaviour (restricting their food intake), that encourages the individual to imitate them due to vicarious reinforcement.
AO2	• Lillia may develop anorexia like her mother seems to have according to the social learning theory, Lillia observes her mother eat and not finish her meal. Lillia's father often calls her mum beautiful- Lillia may perceive positive consequences for her mother not eating, being beautiful. This may cause her to imitate the behaviour modelled by her mother, the behaviour is vicariously reinforced. • Lillia's father saying that they are similar may be explained by the genetic basis for the disorder, as Lillia's mother has had the disorder, Lillia too may have a predisposition for the disorder, inherited by her mother.
AO3	5. The SLT is able to explain cultural changes linked to anorexia nervosa, this is because in some countries, the ideal body shape is larger than it is in the West. SLT is able to explain this as being due in part to media representations of the ideal female body shape. 6. Though most women are exposed to role models that display the ideal body type, not all of them develop anorexia. This suggests that there are other factors involved, which may be a genetic vulnerability which only manifests in a disorder following an activating event such as a childhood trauma. The diathesis stress model may be a more effective way of explaining how anorexia develops. 7. Twin studies, however, assume that both mz and dz twins experience 'equal environments', but this may not be the case. In fact, mz twins are treated more similarly that dz twins are, which means that the greater environmental similarity experienced by mz twins may actually be the cause of increased concordance rate for mz twins. This means that the influence of biological factors may not be as great as twin studies suggest.

Describe and evaluate the cognitive theory of anorexia nervosa. Refer to distortions and irrational beliefs in your answer. (16 MARKS)

AO1	• Individuals with anorexia nervosa have distorted perceptions of their own body shape. These perceptions cause them to obsess over food, eating and their body shape, as a result of this, they may begin to restrict their eating to try and rectify their body shape. • In addition to this, they also incorrectly misidentify emotional states as feelings of being 'fat', causing them to continue to undereat.This may also manifest as an overestimation of their actual body size. • Such individuals also hold irrational beliefs about anorexia nervosa, this may include the belief that they are worthless if they do not control their weight. This is all or nothing thinking, another type of negative thought associated with the disorder involves catatrophising, which may involve believing they have no willpower if they do something like eat a biscuit. • They may also display perfectionism- holding beliefs that they must meet demanding standards set for themselves in all areas of life. Such individuals raise their standards even higher after reaching their targets, which causes them to be forever trying to reach unattainable goals. Another cognitive characteristic of the disorder is cognitive inflexibility, this is because they are unable to switch to a more adaptive way of thinking about their body size.
AO3	1. The cognitive theory lends itself to treatment, Grave et al (2014) used enhanced CBT and found that it caused significant weight gain in individuals which was maintained for a year after they were discharged from hospital. The therapy aims to correct the cognitive distortions that may be preventing the individual from recovering, the success of these treatments helps to provide validity to the cognitive explanation. 2. Cognitive distortions and irrational beliefs may not actually be the cause of anorexia nervosa. It was found by Shott et al (2012) that young people with anorexia nervosa did not show significant cognitive inflexibility in comparison to the healthy controls, but the older patients did. This suggests that it is not cognitive inflexibility that makes people vulnerable to the disorder, but rather these cognitive distortions are a result of the disorder. As a result, if these distortions do not cause the disorder, the cognitive theory is undermined. 3. Halmi et al (2012) found that childhood perfectionism was a significant predictor of later development of the disorder in women over the age of 16. But participants in the study had to retroactively remember instances of perfectionism in their childhoods, the memories of which may be distorted, which may incorrectly strengthen the link between perfectionism and anorexia nervosa. 4. There is contradictory research that suggests that the cognitive explanation for anorexia nervosa may not be accurate. In research conducted by Cornelissen (2013), there were no significant differences between the accuracy of the body size estimates made by non-anorexics and sufferers of AN. But there are studies that suggest the opposite.

Describe and evaluate psychological explanations for obesity. (16 MARKS)

AO1	• The restraint theory was developed by Herman & Polivy in 1975 and states that people may restrict their eating, bu this is self-defeating. Dieters create rules about what they can and can't eat, but become preoccupied with food, resulting in disinhibited eating behaviour, causing them to put on weight and become obese. • Periods of restrained eating are followed by disinhibited eating which is caused by reactions to food-related cues. These cues make them vulnerable, leading to unrestrained eating and the belief that they have already started eating, so why should they stop? • Herman and Polivy (1984) developed the Boundary Model this begins with a biological process in which both hunger and satiety are aversive. Hunger is aversive, as when energy levels dip below a certain level, we are encouraged to eat. Similarly, eating to fullness creates a feeling of discomfort, so we are motivated to stop eating. • The next process is psychological, and is the 'zone of biological indifference', which is when we feel neither hungry or full. In this state, individuals are under the control of psychological factors and so are vulnerable to the effects of disinhibitors. • As they are vulnerable to the effects of disinhibitors, they countie eating, leading to obesity.
AO3	1. Wardle and Beales (1988) studied obese women who were allocated to different conditions, restrained eaters in the dieting group ate more than those in the other conditions. This supports the view that restraint can be a causal factor in overeating, which leads to weight gain and obesity. 2. This model has practical implications, as it can predict the outcome of restricting food intake- which is disinhibition which causes obesity. This is in contrast to the dieting industry which promotes quick fixes, with the intent that the patient can be blamed if it doesn't work. More effective methods of weight loss can be developed using the model as a basis. 3. Restrained eating may cause obesity in the way that is assumed. Savage et al (2009) found that restrained eating whilst dieting leads to weight loss rather than weight gain in the short-medium term, contradicting the restraint theory as an outcome opposite to the one it predicts occurs. 4. Restraint comes in two forms- rigid and flexible, but only rigid restraint leads to obesity. This could be why Savage et al (2009) found that restraint could lead to weight loss rather than gain.

Leander and Uday are arguing about diets. Leander reckons that just being on one won't make it work. Uday believes that they do worl. And is about to start on his most recent one, which involves drastically cutting down on carbohydrates.

Discuss one or more explanations for the success and failure of dieting. Refer to Leander's and Uday's positions in your answer. (16 MARKS)

AO1	• The Spiral Model devised by Heatherton and Polivy (1992) suggests that dieting begins in adolescence, when low self-esteem leads to a desire to lose weight. There is initial success but weight is often regained. As a result of this, the individual begins to feel deficient, as if they haven't tried hard enough. This creates a downward spiral in which they make bigger attempts to diet, which makes them more vulnerable to disinhibited eating. Changes to metabolism may make weight loss difficult- these changes can include increased levels of ghrelin. • The Ironic Processes Theory was devised by Wegner et al (1987) which is based on how being on a diet ironically increases the amount of time dieters spend thinking about food. Such preoccupation isn't helped by distractions such as reading a book,as this requires mental activity and as dieters have reduced cognitive capacity, preventing them from suppressing their thoughts of food. • Restraint leads to disinhibition, which leads to a failure in dieting. This is because when dieting they are under cognitive control and so are more vulnerable to the effects of cues which succeed in causing them to break their diet. The boundary model suggests that when dieters eat past a point they have set for themselves, they have develop a belief that they might as well keep on eating.
AO2	• Leander believes that dieting is ineffective. Ineffective dieting can be explained by the restraint theory, or by the ironic processes theory. Locus on control can also explain why these factors do not cause the failure of all dieters. • Uday, conversely believes that dieting can work- he may have a high internal locus of control which allows him to be more resistant to the effects of disinhibition, making his dieting successful.
AO3	1. Practical uses can be derived from the spiral model, with Heatherton and Polivy (1992) arguing that the model teaches that the lowering of self-esteem should be prevented as much as possible. This is a strength of the model, as Lowe and Kleifield found that individuals with higher self-esteem are less likely to experience disinhibited eating, increasing the chances of dieting being successful. 2. The ironic process theory also has practical applications, lending strength to the theory. The theory suggest that overeating is more likely when the dieter performs activity that requires more cognitive activity. As a result, it can be suggested that dieting can be more successful when the dieter devotes their full attention to food, rather than indulging in distractions. This means no eating whilst performing other tasks. 3. These explanations are unable to account for individual differences, with Ogden (2010) suggesting that theories claiming dieting is counterproductive have difficulty explaining why some people lose weight whilst being occupied with food. This may be due to difficulties with their loci of control which cannot be explained by these theories, making these theories lack internal validity.