

Section A

Answer all questions in this section. Marks will be awarded for focused answers demonstrating accurate knowledge and understanding of research.

Biological approach to understanding behaviour

1. Describe one evolutionary explanation of behaviour. [9]

Cognitive approach to understanding behaviour

2. Outline one ethical consideration related to studies in the cognitive approach to understanding human behaviour. [9]

Sociocultural approach to understanding behaviour

3. Explain how and why one research method is used to study cultural origins of behaviour and/or cognition. [9]

Section B

Answer one question in this section. Marks will be awarded for demonstration of knowledge and understanding (which requires the use of relevant psychological research), evidence of critical thinking (for example, application, analysis, synthesis, evaluation), and organization of answers.

4. Discuss one or more ethical considerations related to research in the biological approach to understanding human behaviour. [22]
5. Discuss how emotion may affect one or more cognitive processes. [22]
6. Discuss one or more ways culture may influence behaviour and/or cognition. (22)

SAQ # 1

Evolution is the process of change in an individual from generation to generation as a result of heritable characteristics. An evolutionary explanation of prosocial behaviour is the kin-selection theory. Prosocial behaviour is the act of benefiting others who are genetically related. An individual is said to be behaving altruistically if they benefit or help others, at a cost to themselves. The theory of kin-selection was proposed by Hamilton (1964) that suggested the rule of $b > c/r$ where 'b' is the benefit received, 'c' is the cost incurred and 'r' is the co-efficient that determines the probability of benefit ~~received~~ ~~by the recipient~~ and genetic relatedness between the donor and recipient due to the prosocial behaviour demonstrated by the donor. An individual is said to be helping those with similar genes, especially ~~near~~ recipients who belong to younger kin group as they can pass on the genetic material through future offspring. It is been studied, that even if the donor is not benefited themselves, they are likely to engage in prosocial behaviour. The recipient may not only be ~~their~~ directly related (genetically) to the donor. It may be an individual with similar ancestral genetics such as ethnicity or nationality that have the same alleles. Therefore, kin-selection theory expands on the extent to which people would go to help/benefit ~~these~~ other who may not be their immediate relative but similar ^{genetic} background. This evolutionary explanation can be observed in real life through cooperation, altruism and nepotism.

A study that explains this theory is Hadsen (2007). The aim was to see the willingness of an

of an individual to endure physical pain (cost) in order to benefit the other who are genetically related. 24 participants were used and timed of how long they can stay in the same position for their people who they are genetically related, to get rewarded. The potential recipient was told to them before the experiment. It is was concluded that more the close individuals were, more likely for the participants to endure ~~the~~ pain for a longer time period.

SAQ # 2

Ethics are those correct rules that researchers are required to ~~introduce~~ ^{follow} in their studies to prevent the experiment from inducing physical or psychological harm to the participants.

One ethical consideration used in studies is deception that may prevent influencing the participant's behaviour by not ~~telling~~ introducing them the aim. It may be done through ~~or~~ misinformation or hiding the true goal of the experiment. One study that demonstrates the use of deception is the Loftus and Palmer (1974). ~~Fact~~ ^{Fact} aim was to see the effect of change in language on true memory. The study is based on reconstructive memory.

Participants were divided into 5 groups of 9 students each. All were shown five films of 30s about car accidents.

After this, they were to account what ^{all} they ~~recall~~ recall and asked to ~~give~~ be given a questionnaire

that involved one critical question, to ~~assess~~ ^{assess} the estimate the speed of the car. However, deception

was ~~used~~ ^{used} by changing the words to describe the experiment in each condition. One asked, "what was the

estimated speed when the cars smashed each other?" Other conditions used words like "contacted", "hit" and "collided" each other. This form of deception was misleading information that could affect or create and individual's memory. Deception may cause stress or anxiety in the participant since the misinformation makes them doubt their memory. Although, it was beneficial in the experiment as well since researchers were able to understand the effect of language on memory, understanding the concept of reconstructive memory.

Another study is the Miller (1956) using deception since the researcher hides the true aim of the experiment. Participants are asked to recall words in the same order as presented which makes them think the goal is to measure their memory ability. However, the real aim is to determine the limitations of working memory model. Deception was beneficial since this experiment established a framework for the capacity of working memory model by preventing participants' preconception influencing the results. This study was helped in improving the theory of working memory model by Jacobs et al and Atkinson and Shiffrin.

SAR #3

One research method used to understand study cultural origins of behaviour and cognition is the quasi-experimental method. It establishes a cause-and-effect relationship between the independent variable (IV) and dependent variable (DV). It is different from a ~~real~~ true experiment as it uses pre-existing groups, and ~~non-~~ non-assignment of

participants. Researchers have limited control ~~of~~ over the IV and DV since they are pre-existing, but this also implies they do not have control over the other existing variables that can influence the results. However, if they can control or limit the rest of the variables, a cause-and-effect relationship can be established. Another characteristic of this method is comparing groups that are mostly similar but differ in their treatment or actions. It is important to recognize the use of the method with respect to cultural dimensions, understanding the effects of culture on and individual's identity.

A study that uses this method is Berry (1967) that aimed to understand cross-cultural conformity levels. Participants involved Tanna of New Hebrides and Inuit tribe and a control group of Scottish people. Berry used Asch experiment of comparing lines. The study tested conformity levels of Tanna and Inuit groups and whether they change their answers to what the other members in the group said about the matching length of lines. Tanna group was concluded to show higher conformity compared to Inuit tribe. The IV was whether the participant was from the former or latter group. This study demonstrates the quasi-experimental method since it establishes a cause and effect relationship between telling the decision of other groups and ~~whether~~ whether that influenced the individual's behaviour to conform. Tanna were more likely to conform as they are a more collectivist culture and Inuit is individualistic culture, explained from their professions of rice farming and hunting, respectively. Also, the study used the only change

in language as a variable to prevent prevent any group from not understanding the instructions. Therefore, the study has high internal validity as other confounding variables are controlled.

ERO #4

One ethical consideration related to research in biological approach to human behaviour is undue harm or stress. This essay will look into genetics and behaviour. Nature of the study can lead to stress in participants in the forms of psychological, physical and emotional distress. Protection from harm is a guideline researchers have to follow as it's their responsibility to minimize the stress as much as possible. And this has to be done while conducting the experiment which is valid and valuable.

One study that raises the consideration of stress is Caspi et al, 2003. Participants included fourteen 26-year olds. All were divided into three groups, one with two short alleles of 5-HTT gene, second with one long and one short allele and third with two long alleles of 5-HTT gene. Participants were asked to fill a stressful life event questionnaire. Results showed that people with two-short alleles had higher rate of stress and experienced depression. Also, it was concluded that not simply having the gene was not enough for depression but also having a stressful life event, may it be financial, economical, relationship stressors. The study highlights the ethical consideration of undue harm or stress as participants had to recall life events which were stressful. But more importantly people were experienced self-fulfilling