5.5 The Cognitive Approach: Schema, Inference and Cognitive Neuroscience: 10-minute Pack

AQA 7182 · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions.

1 Define the term 'schema' as used in the cognitive approach to psychology, naming its origin from experience and its organising role.

(Total for Question 1 is 2 marks)

2 State one limitation of using computer analogies and computational models when studying human cognition in natural settings, and suggest one way researchers might reduce this limitation.

(Total for Question 2 is 3 marks)

3 State one limitation of using inference to study internal mental processes, and explain why this limitation matters for cognitive psychology.

(Total for Question 3 is 2 marks)

4 Outline two scientific strengths of the cognitive approach that support its status as a scientific psychology.

(Total for Question 4 is 2 marks)

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Mark scheme · 5.5 The Cognitive Approach: Schema, Inference and Cognitive Neuroscience: 10-minute Pack

Question 1

a mental framework or cognitive structure used to organise knowledge and expectations about the world oe	**B1**
built from past experience and used to interpret new information oe	**B1**

Answer: A schema is a mental framework built from past experience that organises knowledge and expectations and helps interpret new information.

Question 2

identifies a limitation, e.g. low ecological validity or ignoring emotion/embodiment oe	**M1**
suggests a practical way to reduce it, e.g. complement computational models with field studies or incorporate affective variables into models oe	**A1**
explains briefly why the suggestion helps, e.g. increases real-world relevance or captures more aspects of human cognition oe	**A1**

Answer: A limitation is low ecological validity and neglect of emotion or embodied factors. This can be reduced by combining computational models with field studies or by building affective and embodied components into models, increasing real-world relevance.

Question 3

identifies a limitation, e.g. inference is indirect and relies on assumptions about the link between behaviour and cognition oe	**B1**
explains why it matters, e.g. incorrect assumptions can lead to wrong conclusions about internal processes, reducing validity oe	**B1**

Answer: Inference is indirect, relying on assumptions about how behaviour reflects internal processes; this matters because wrong assumptions can lead to incorrect conclusions and lower the validity of cognitive explanations.

Question 4

identifies a strength, e.g. use of controlled experiments to test precise hypotheses oe	**B1**
identifies a second strength, e.g. development of testable computational models and use of brain-imaging to link cognition to neural activity oe	**B1**

Answer: Strengths include use of controlled experiments to test precise hypotheses, and development of testable computer models plus brain-imaging techniques that link cognitive theories to neural data.

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