

2.1 Cognition, language and learning: evidence and transfer

Name: _____ Class: _____ Date: _____

Total: 8 marks

KEY WORDS negative reinforcement • morpheme

Objective

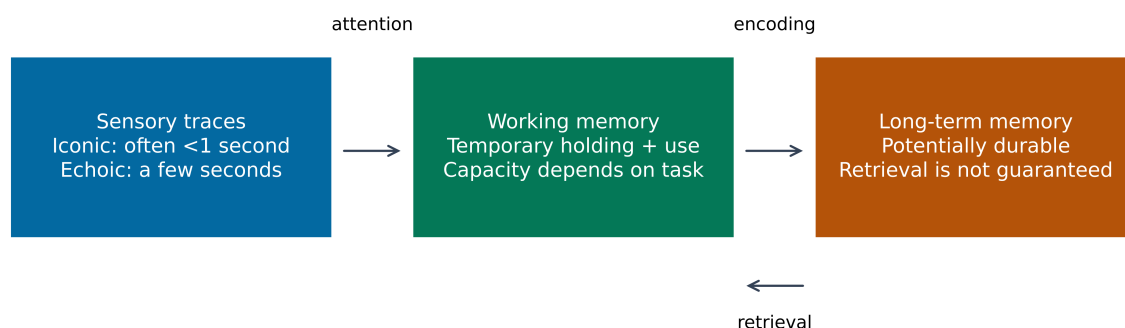
Distinguish classical and operant conditioning; Analyse memory systems, retrieval and forgetting; Use language units and theories of thinking and problem solving. Original practice and authored marking guidance.

1 Key knowledge and worked examples

negative reinforcement : Removing an aversive condition to increase behaviour. **morpheme** : A smallest meaningful language unit.

Identify what changes before naming a learning process. In classical conditioning, a cue predicts another event and evokes a response. In operant conditioning, a consequence follows an action and changes its future frequency. Memory tasks differ in their retrieval cues: recognizing an answer supplies information that free recall does not. A language task may require sound contrasts, meaningful word parts or sentence structure; identify the level rather than using language as one undivided ability. See LR.1, ME.1, LG.1, TH.1 and ME.2 for detailed teaching.

Memory functions: approximate times, task-dependent limits



Worked case. A child hears a tune before lunch and later salivates to it. Separately, a child earns a token after reading and reads more often. Explain the different processes.

The tune predicts food; salivation to the cue fits classical conditioning. Reading

produces a token and subsequently increases; adding that consequence fits positive reinforcement. A pleasant event is not automatically reinforcement: the evidence must include a change in the target action.

2 Practice

2.1 Food following a lever press that increases pressing is: [1]

A. positive reinforcement B. negative punishment C. classical extinction

2.2 The smallest meaningful unit is a: [1]

A. phoneme B. morpheme C. neuron

2.3 Revisit the worked case. State one conclusion its evidence supports and one stronger conclusion it does not support. Explain the difference. [2]

3 Exam-style questions

3.1 Students remember a definition when shown its first letter but fail to recall it unaided. One claims the memory never existed. Evaluate and propose a comparison. Give the interpretation, supporting reasoning, a relevant alternative or limitation, and an appropriate check. [4]

Solutions

2.1 Answer: A. A consequence is added and behaviour increases. The other options do not satisfy the stated defining conditions.

2.2 Answer: B. Morphemes carry meaning; phonemes distinguish sounds. Compare the exact process, design or evidence, rather than an associated keyword.

2.3 Use the worked case evidence to support a bounded claim and explain why a causal, universal or stronger claim needs additional evidence. The claim must fit the specific design and observed process.

3.1 Cued retrieval succeeds, so complete absence of stored information is too strong. The difficulty may concern access without a cue. Compare free recall, cued recall and recognition for the same material, controlling exposure and test order. Recognition is easier partly because cues differ, not because it proves an entirely different permanent memory. Award B1 each (authored) for the interpretation, its reasoning, a relevant limitation/alternative and an appropriate check, up to four points. Accept a different justified answer satisfying these demands.