Exercise walk-through

2.1 Cognition, language and learning: evidence and transfer

GRE · GRE Subject Test · GRE Psychology

Cognition, language and learning

- Separate classical from operant conditioning, and reinforcement from punishment, including **negative reinforcement** .
- Describe working memory and long-term memory, and compare recall with **recognition** .
- Name the levels of language, such as the phoneme and the **morpheme** .
- Recognise heuristics and obstacles in problem solving.

Learning

- Classical conditioning: a cue comes to predict an event and produces a response. A tune that always comes before lunch comes to cause salivation.
- Operant conditioning: a consequence changes how often an action happens.
- Positive means adding, negative means removing. Reinforcement increases behaviour; punishment decreases it.
- Negative reinforcement removes something unpleasant and increases behaviour. It is not punishment.

Memory

- Sensory memory holds input for under a second to a few seconds; working memory holds a few items while we use them; long-term memory is lasting.
- Explicit memory is deliberate recall of events and facts; implicit memory appears in skills and priming.
- Recognition gives the answer as a cue, so it is usually easier than free recall. A failure to recall does not show that the memory is gone.

Exercises 2.1·2.2

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



Exercises 2.1·2.2

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

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



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

2.2 The smallest meaningful unit is a: [1]

A. phoneme B. morpheme C. neuron



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

Exercises 2.3·3.1

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



3.1 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]



Exercises 2.3·3.1

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



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.

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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.