

Exercise walk-through

22.1

Attention limits and non-associative learning: evidence and transfer

GRE · GRE Subject Test · GRE Psychology

Concepts 1

Concepts 1

Attention is limited capacity. Early-selection accounts filter by physical features, late-selection accounts filter after meaning, and multimode theory (Johnston and Heinz) lets the selection point flex with task demands. Divided attention fails when combined demands exceed capacity: a hands-free call still slows driving because the bottleneck is central, not manual.

Load theory separates perceptual load from working-memory load: high perceptual load in the main task shuts out distractors, while high working-memory load invites them. Predictions follow the load, not the slogan that multitasking is always impossible.

Concepts 2

Concepts 2

Habituation is non-associative learning: repeated presentation of a stimulus weakens the response, and a changed stimulus restores it (dishabituation). No pairing with another stimulus is involved, which separates it from classical conditioning. A commuter who stops hearing a scheduled train has habituated; the response returns if the train schedule changes.

Habituation is exploited as a measure: infants look longer at novel stimuli, so looking-time recovery after habituation indexes discrimination. Extinction in conditioning is different: there a learned association is withdrawn, not a repeated stimulus.

Check the transfer argument

Check the transfer argument

Test an appropriate changed stimulus and recovery after a rest, with suitable controls. Recovery can make general response fatigue less plausible, although it does not alone settle every mechanism. Extinction requires a previously learned cue/consequence relation that is no longer maintained; repetition alone supplies no such history.

Accept a different explanation when its evidence and limits are justified.

Exercises 2.1·2.2

2.1 Hands-free phone conversation still impairs driving because: [1]

A. the hands remain occupied B. central processing capacity is shared C. peripheral vision narrows physically D. habituation blocks the phone signal E. procedural memory takes over

2.2 A baby stops looking at a repeated picture, then looks again when the picture changes. The recovery of looking is: [1]

A. extinction B. generalisation C. dishabituation D. spontaneous recovery E. imprinting

Exercises 2.1·2.2

2.1 Hands-free phone conversation still impairs driving because: [1]

A. the hands remain occupied B. central processing capacity is shared C. peripheral vision narrows physically D. habituation blocks the phone signal E. procedural memory takes over

2.1 Answer: B. The bottleneck is central capacity, not the hands; multimode theory predicts the cost from combined demands. The other options do not satisfy the stated defining conditions.

2.2 A baby stops looking at a repeated picture, then looks again when the picture changes. The recovery of looking is: [1]

A. extinction B. generalisation C. dishabituation D. spontaneous recovery E. imprinting

2.2 Answer: C. Response decline to repetition is habituation; recovery to a changed stimulus is dishabituation – no conditioning is involved. 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 A response falls with repeated sound presentations. Propose a check against fatigue and explain why extinction is not established. 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.

3.1 A response falls with repeated sound presentations. Propose a check against fatigue and explain why extinction is not established. Give the interpretation, supporting reasoning, a relevant alternative or limitation, and an appropriate check. [4]

3.1 Test an appropriate changed stimulus and recovery after a rest, with suitable controls. Recovery can make general response fatigue less plausible, although it does not alone settle every mechanism. Extinction requires a previously learned cue/consequence relation that is no longer maintained; repetition alone supplies no such history. 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.