

Exercise walk-through

18.1

Language structure, perception and acquisition: evidence and transfer

GRE · GRE Subject Test · GRE Psychology

Concepts 1

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Language is hierarchical. Phonemes are the smallest sound units that distinguish meaning (/b/ versus /p/); morphemes are the smallest meaning-bearing units (un-happy-ness has three); syntax governs how words combine into phrases and sentences; semantics concerns meaning. A sentence can be grammatical yet meaningless — syntax and semantics are separable.

Speech perception is categorical: continuous acoustic variation is heard as discrete phonemes, so a sound between /b/ and /p/ is reported as one or the other. Listeners segment a continuous stream using transitional probabilities and knowledge, not audible gaps between words.

Concepts 2

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Reading links print to sound and meaning. Skilled readers use both a grapheme-to-sound route (sounding out) and a direct whole-word route for familiar words; dyslexia research separates phonological decoding deficits from surface patterns. Eye-movement studies show reading is a series of fixations and saccades, not smooth gliding.

Bilingualism research separates language proficiency from general intelligence: balanced bilinguals show executive-control practice effects, while subtractive schooling can harm both languages. Second-language learning declines with age of onset, especially for pronunciation and grammar, without a single sharp critical cut-off.

Check the transfer argument

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Can you open the window? has interrogative syntax but may function as a request. Someone answering only yes may understand literal ability but miss the pragmatic intention. Meaning depends on speaker, setting and conventions. Accept another example that clearly separates grammatical form from use without treating a language community as uniform.

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

Exercises 2.1·2.3

2.1 The word unhappiness contains how many morphemes? [1]

A. one B. two C. three D. five E. eleven

2.2 A sound acoustically intermediate between /b/ and /p/ is reported as clearly one or the other. This illustrates: [1]

A. sensory adaptation B. categorical perception C. the phonological loop D. bottom-up feature detection E. spontaneous recovery

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

Exercises 2.1·2.3

2.1 The word unhappiness contains how many morphemes? [1]

A. one B. two C. three D. five E. eleven

2.1 Answer: C. Un + happy + ness: three meaning-bearing units; letters are not morphemes. The other options do not satisfy the stated defining conditions.

2.2 A sound acoustically intermediate between /b/ and /p/ is reported as clearly one or the other. This illustrates: [1]

A. sensory adaptation B. categorical perception C. the phonological loop D. bottom-up feature detection E. spontaneous recovery

2.2 Answer: B. Continuous acoustic input is perceived as discrete phoneme categories. Compare the exact process, design or evidence, rather than an associated keyword.

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.

Exercise 3.1

3.1 Explain how a message can have correct syntax but be misunderstood because of context, using an original example. Give the interpretation, supporting reasoning, a relevant alternative or limitation, and an appropriate check. [4]

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3.1 Can you open the window? has interrogative syntax but may function as a request. Someone answering only yes may understand literal ability but miss the pragmatic intention. Meaning depends on speaker, setting and conventions. Accept another example that clearly separates grammatical form from use without treating a language community as uniform. 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.