

Cognitive Psychology (4100)
Arlo Clark-Foos

Test 2 - Study Guide

Module VII: Memory Basics

- Multi-store vs. single-store models
 - Cowan, Embedded process models, spotlight metaphor
- Atkinson & Shiffrin: STM doing more than storage, there is maintenance and rehearsal
 - Activity: Need rehearsal to maintain STM
 - Access: Slow and effortful for LTM
 - Capacity: Leaky bucket metaphor
 - George Miller (1956): Magic #7 ± 2
 - Memory span (digit span)
 - Chunking
 - Maintenance: Rehearsal vs. Built-in
 - Code: Surface vs. Conceptual
- Clinical evidence for STM-LTM distinction
 - HM (epilepsy)
 - NA (fencing accident)
- Forgetting
 - Brown-Peterson Task: Duration of STM?
 - Sebrechts, Marsh, & Seamon (1989): Expectancy
 - Serial Position: Primacy (LTM) vs. Recency (STM)
 - Decay vs. Interference
 - Keppel & Underwood (1962): Proactive Interference?
 - Waugh & Norman (1965): Probe digit, interference
 - Reitman (1973; 1974): Signal Detection
- Maintenance
 - Landauer (1962): rehearsal rate
 - Conrad (1964): letter confusion matrix
 - Seamon & Chumbley (1977): hierarchical organization
- Models of STM / WM
 - Baddeley's Working Memory Model
 - Visuospatial sketchpad, phonological loop, & central executive
 - Salame & Baddeley (1987; 1989): Effects of background noise on phonological loop
 - Vallar & Baddeley: Articulatory suppression ("THE")
 - Selective Interference
 - Baddeley's rotor pursuit task

Module VII: Long-Term Memory

- 3 Processes: 1. Encoding/Acquisition, 2. Retention, 3. Retrieval
 - Clive Wearing: Lost episodic memory
 - H.M.: encoding or retrieval?

- Serial Position Effects
- Types of LTM: Declarative (Semantic, Episodic) vs. Nondeclarative (Procedural, Implicit)
 - Repetition priming
- Measuring memory: Recall, Recognition, Implicit tests
- Tip-of-the-Tongue States
- Forgetting
 - Rust metaphor (decay)
 - Bad retrieval cues
 - Interference
 - Proactive vs. Retroactive Interference
 - Two List Paradigm (A-B, A-C)
 - Keppel & Underwood (1962)
 - Wickens release from PI
- Network Models (Collins & Quillian, 1967; 1969)
 - Nodes, Connections, ISA links
 - RTs to primary vs. secondary properties (Collins & Quillian, 1969)
 - Spreading activation
 - Semantic priming
 - Schema-based memory errors
 - Brewer & Tryons (1981): graduate student office
- Very Long Term Memory
 - Bahrick et al. (1975): Memory for classmates can last over 80 years!
 - Williams & Hollan (1981): Scalloped recall, retrieval cues
- Savings in Relearning

Module IX: Memory Codes

- Korsakoff's syndrome
 - Proposed Cause?
 - Role of hippocampus in transfer to LTM
- Levels of Processing (Craik & Lockhart, 1972)
 - Time in STM vs. Attention & Processing
 - Deep vs. Shallow Encoding
 - Structural, Phonemic, Semantic
 - Elaborations
 - Rogers, Kuiper, & Kirker (1977): self-referential
 - Nairne, Pandeirada, & Thompson (2008): survival value
 - Problems with LOP?
 - Measurement, Serial stages assumption, Circularity, Overspill coding
- Transfer Appropriate Processing
 - Morris, Bransford, & Franks (1977): How you test matters
 - Cognitive operations
 - Light & Carter-Sobell (1970):
 - Sliced HAM

- Recall clergy vs. Recall birds
 - \$5 bet to reorganize months
- Encoding Specificity
 - Retrieval Cues
 - Circumstances / Context
 - Godden & Baddeley (1975): Navy divers
 - Bower, Monteiro, & Gilligan (1978): State-dependent (mood) retrieval
- Miller's junkbox metaphor
- Foos's rabbit method
- Durso & Johnson (1979): Orienting task affects memory
 - Verbal vs. Imaginal Elaboration
- Tulving's Remember vs. Know distinction
 - Paradigm, examples

Module X: Memory Distortions

- Allport & Postman (1958): serial reproduction and racial prejudice
- Loftus & Palmer (1974): retrieval bias
 - Hit, smashed, collided, bumped, contacted
- Interference, Misleading Information, and Eyewitness testimony
 - Loftus (1974): importance of eyewitness to jury
 - Brigham, Maas, Snyder, & Spaulding (1982): eyewitness identification with delay
 - Sanders (1984): Role of lures in memory errors
 - Cutler, Penrod, & Dexter: Eyewitness knowledge of cause of memory errors
 - Loftus & Greene (1980): face reconstruction with misleading features
- Loftus, Miller, & Burns (1978): Stop vs. Yield sign
 - Misleading information
 - Overwriting hypothesis
- McCloskey & Zaragosa (1985): influence of guessing
 - Novel distractors
- Tversky & Tuchin (1989): advice against forced-choice paradigm
- Picture Memory
 - Shepard (1967): better than words
 - Standing (1973): memory for 10,000 pictures
- Faded Snapshot vs. Constructivist
 - Hierarchical Organization
 - Stevens & Coupe (1978): relative location of cities
 - Grouping & Categories (Hirtle & Jonides, 1985)
 - Ann Arbor campus
 - In group vs. Out group
 - Cognitive reference points
 - East vs. West Coast
 - Cluster effect
 - Thorndyke (1981): distance to window in cluttered vs. empty room

- Alignment (Tversky, 1981): continental alignment
- Rotation (Tversky, 1981): North vs. South America

Module XI: Psycholinguistics I

- Purpose of language: Production & Structure
- Slobin (1982) on linguistic comparison: English, German, Turkish
- Chomsky (1965): Competence vs. Performance
 - Linguistics vs. Psycholinguistics
 - Structure, Process, & Function
 - Clawhammer blueprint
- Pragmatics
 - Role of context
 - Indirect speech acts
- Phrase Structure Grammar & Structure of Language
- Ambiguities
- MacKay & Osgood: garden path sentences
- Caplan (1972): constituent boundaries
- Sentence Parsing & Function of Language
 - Grice's implicatures
 - Austin: Descriptive vs. Performative utterances
 - Searle: The Sky is Gray
 - Locutionary, illocutionary, perlocutionary
 - Grice's Cooperative Principle
 - Role of Grice's Maxims: Quantity, Quality, Relation, Manner
 - Herb Clark (1979): indirect requests
 - Liquor store / Jim Beam

Module XII: Psycholinguistics II

- Processes in Language
- Language universals (grouping, word order, agreement)
- Searle's Literal First View
- Clark & Lucy (1975): RTs to direct vs. indirect requests
- Gibbs (1983) reanalysis of Clark & Lucy (1975): "Please be friendly to other people"
 - Can indirect meaning ever be computed more quickly than direct?
- Determining boundary of constituents
 - Caplan's Oil
 - Kimball's Three Syntactic Rules
 - Functor Words
 - Right-Most Rule
 - Adjacency
- Interaction between Semantics & Syntax
 - Verbs: semantics can tell us about syntax
 - Noah Illusion

- Maratsos: development and understanding of passive sentences
- Autonomous vs. Interactive views
 - Marslen-Wilson & Tyler (1987): Semantics before clause boundary?
 - Landing planes
 - Swinney (1979): bugs in the corner of the room
 - Marslen-Wilson & Tyler: Another RT study (Semantics & Syntax, Syntax, Neither)
 - Pragmatics
- Text Comprehension
 - Kintsch
 - Two Inputs: Reader & Text
 - Propositions and WM
 - Reinstatement search vs. Inferences
 - Briton et al. (1990): Removing words to create inferences reduces “harmony” and comprehension
 - Swazi tribe: Propositions and Speed of comprehension