

Chapter 9 quiz slides

Other means of review:

Peruse the study guide

Review the typed notes

Re-read the text

Do practice questions in workbook or
on CD-ROM disk

Memory and encoding, 353

- Memory as Information Processing
 - similar to a computer
 - write to file
 - save to disk
 - read from disk
- Encoding
 - the processing of information into the memory system

Storage and retrieval, 351

- Storage
 - the retention of encoded information over time
- Retrieval
 - process of getting information out of memory

Short term and Long term memory, 362-3

- Short Term Memory
 - activated memory that holds a few items briefly
 - look up a phone number, then quickly dial before the information is forgotten
- Long Term Memory
 - the relatively permanent and limitless storehouse of the memory system

Automatic Processing, 353

We process an enormous amount of information effortlessly, such as the following:

1. **Space:** While reading a textbook, you automatically encode the place of a picture on a page.
2. **Time:** We unintentionally note the events that take place in a day.
3. **Frequency:** You effortlessly keep track of things that happen to you.

Ebbinghaus and rehearsal, 354

Effortful learning usually requires rehearsal or conscious repetition.

Ebbinghaus studied rehearsal by using nonsense syllables:
TUV YOF GEK XOZ



<http://www.isbn3-540-21358-9.de>

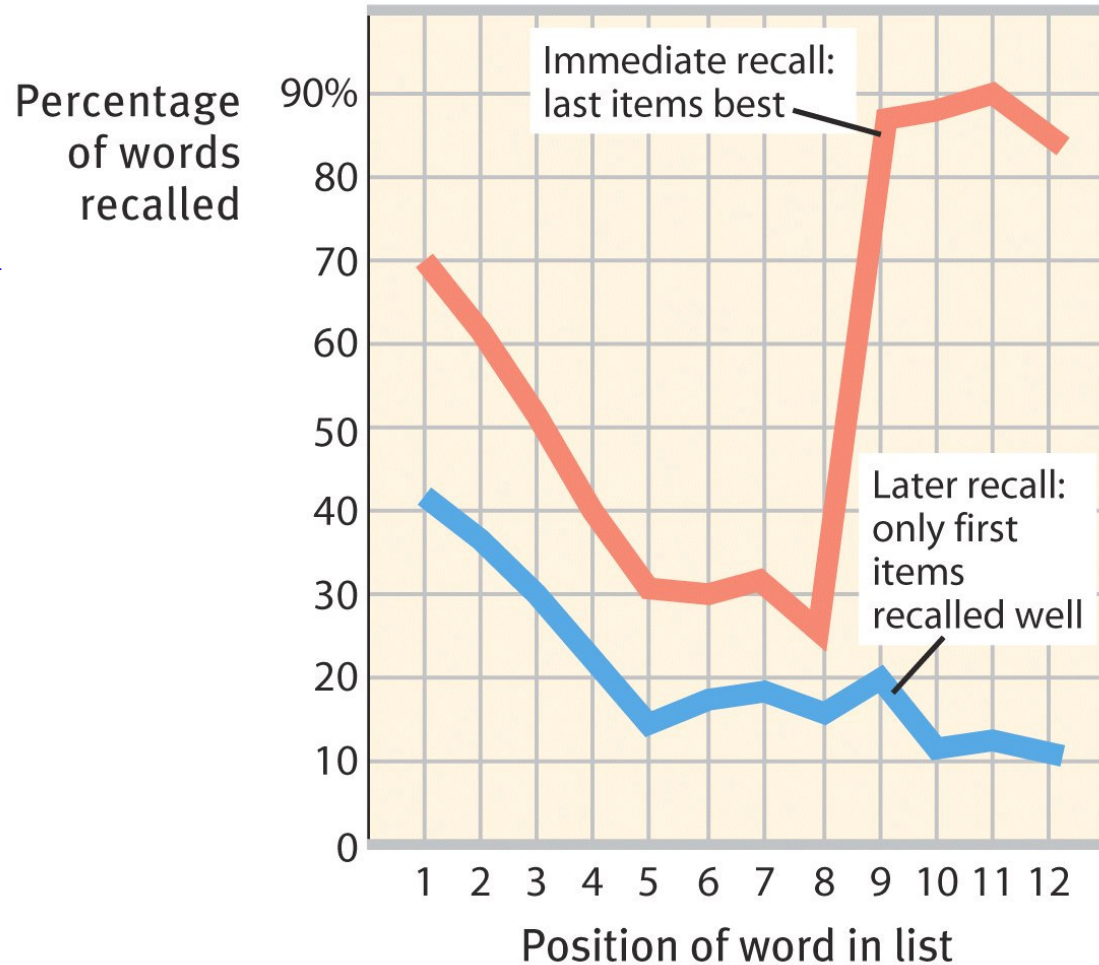
Hermann Ebbinghaus
(1850-1909)

Effects and memory

- Primacy effect
- You remembered words at the beginning of the list
- Recency effect
- You remembered words at the end of the list
- Serial position effect
- You remembered words in the middle

Serial Position Effect, 356

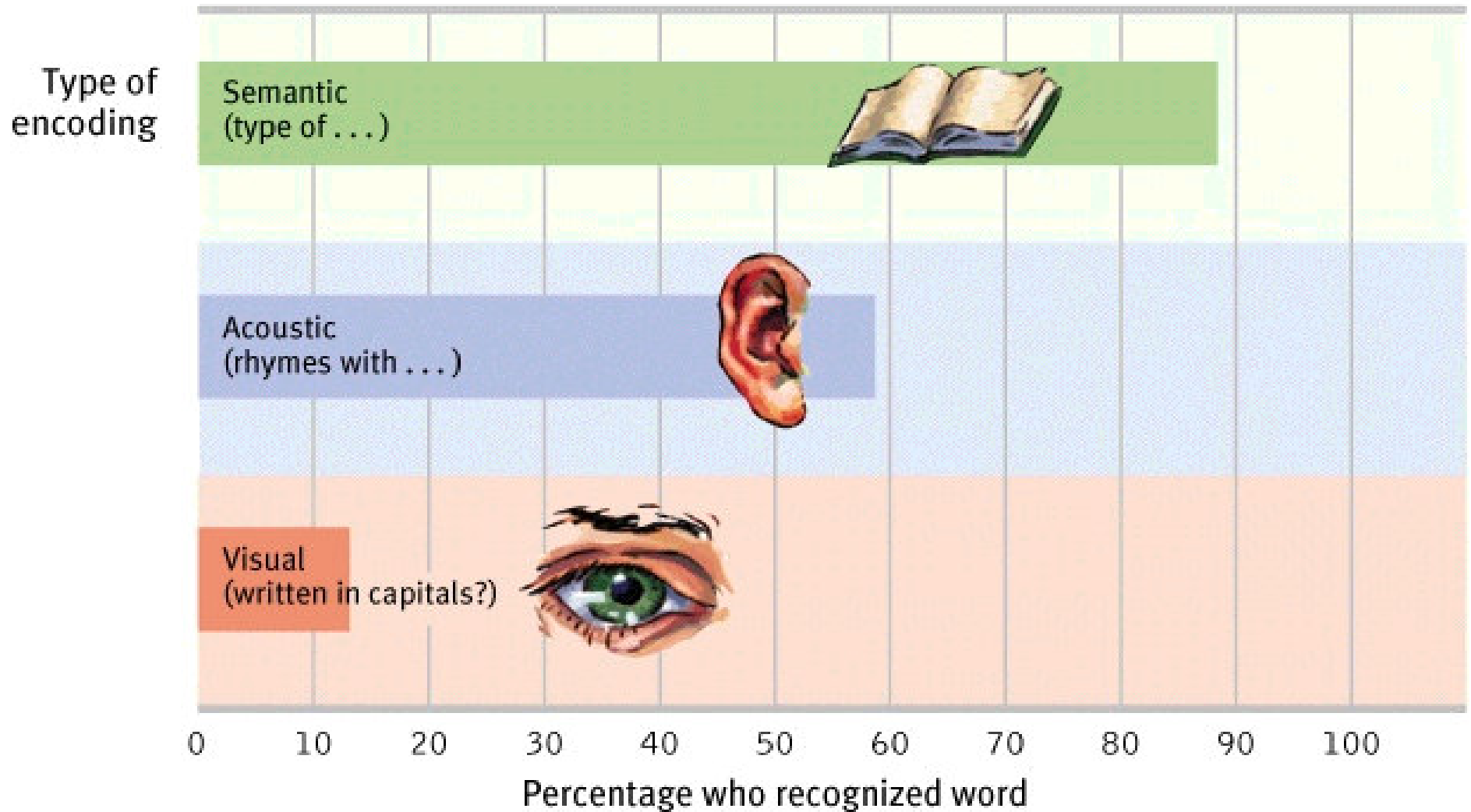
- | | | |
|-----|-----|-----------------|
| 1. | TUV | } Better recall |
| 2. | ZOF | |
| 3. | GEK | |
| 4. | WAV | |
| 5. | XOZ | } Poor recall |
| 6. | TIK | |
| 7. | FUT | |
| 8. | WIB | |
| 9. | SAR | } Better recall |
| 10. | POZ | |
| 11. | REY | |
| 12. | GIJ | |



What Do We Encode? 356

- **Semantic Encoding**
 - encoding of meaning
 - including meaning of words
- **Acoustic Encoding**
 - encoding of sound
 - especially sound of words
- **Visual Encoding**
 - encoding of picture images

Encoding



Mnemonics, 358

Imagery is at the heart of many memory aids. Mnemonic techniques use vivid imagery in aiding memory.

1. Method of Loci
2. Link Method

Method of Loci

List of Items

Charcoal
Pens
Bed Sheets
Hammer
.
.
.
Rug

Imagined Locations

Backyard
Study
Bedroom
Garage
.
.
.
Living Room

Chunking, 359

Organizing items into a familiar, manageable unit. Try to remember the numbers below.

1-7-7-6-1-4-9-2-1-8-1-2-1-9-4-1

If you are well versed with American history, chunk the numbers together and see if you can recall them better. 1776 1492 1812 1941.

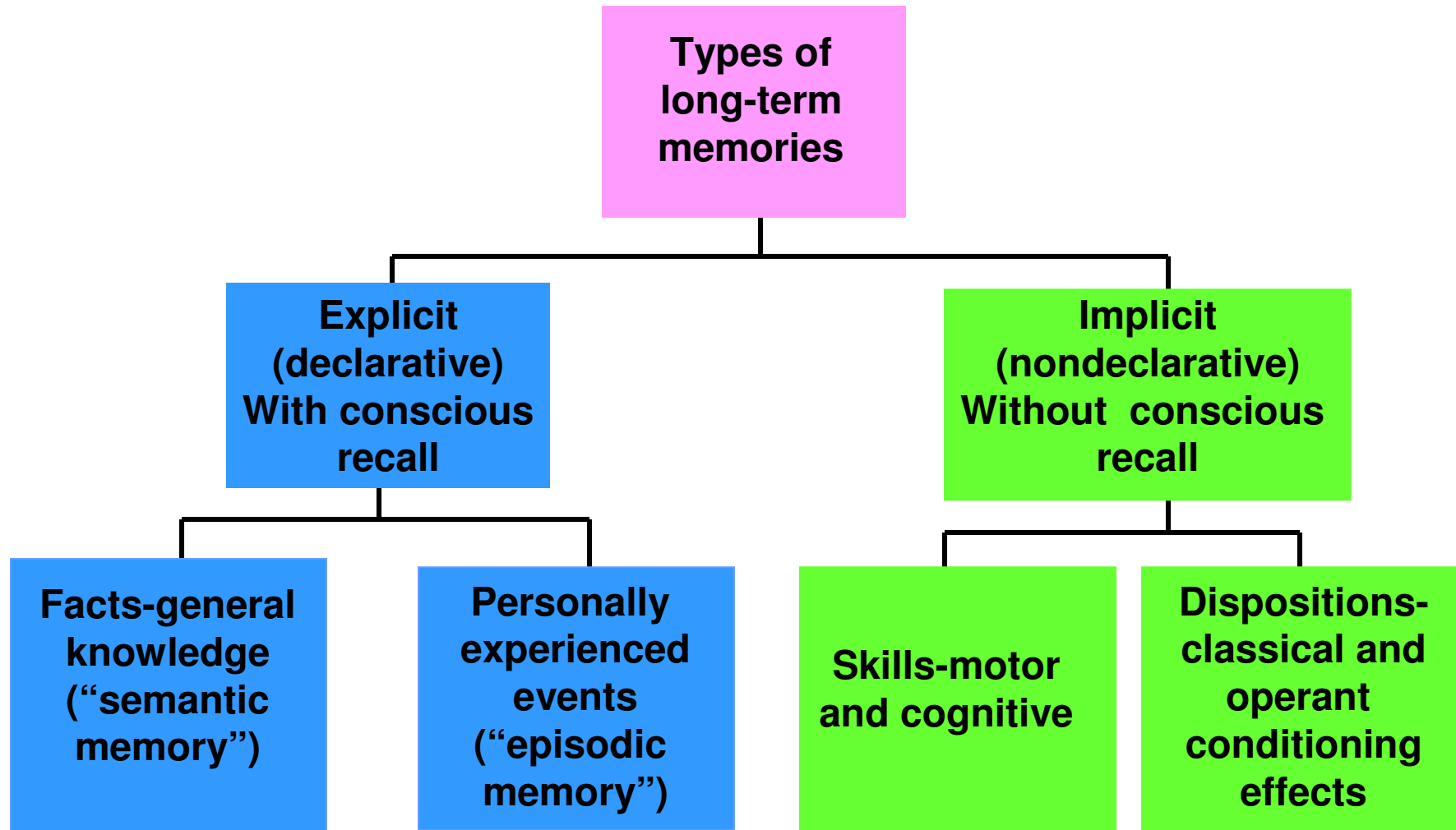
Working or short term memory, 362

Working memory, the new name for short-term memory, has a limited capacity (7 ± 2) and a short duration (20 seconds).

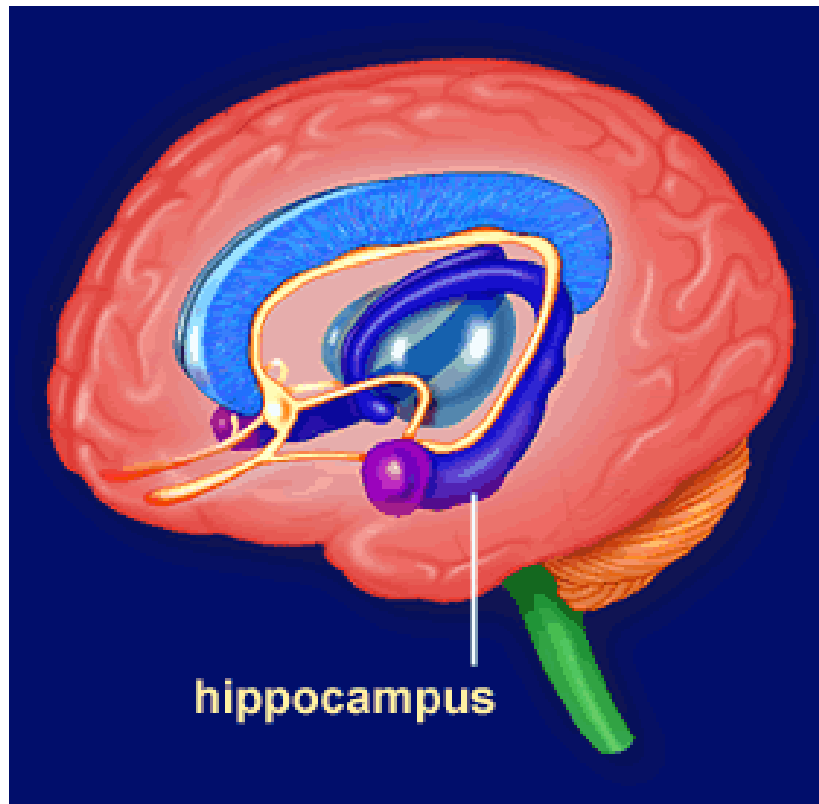
Explicit v. implicit memory, 367

- **Explicit Memory**
 - memory of facts and experiences that one can consciously know and declare
 - **hippocampus**- neural center in limbic system that helps process explicit memories for storage
- **Implicit Memory**
 - retention without conscious recollection
 - motor and cognitive skills
 - dispositions- conditioning

Storage- Long Term Memory Subsystems, 368



Hippocampus, 368



The hippocampus helps to encode memories, and then helps to find them when you want to remember something.

Retrieval Cues, 372

- Reminders of information we could not otherwise recall
- Guides to where to look for info
 - Context Effects
 - memory works better in the context of original learning
 - They can be words, emotions, places or events

Retrieval Cues and deja vu, 373-4

- (French) already seen
 - cues from the current situation may subconsciously trigger retrieval of an earlier similar experience
 - "I've experienced this before"

Mood Congruent Memory

- tendency to recall experiences that are consistent with one's current mood
- memory, emotions or moods serve as retrieval cues
- **State Dependent Memory**
 - what is learned in one state (while one is high, drunk or depressed) can more easily be remembered when in same state

Recall v. recognition, 370

- Recall
 - the ability to retrieve info learned earlier and not in conscious awareness-like fill in the blank test
- Recognition
 - the ability to identify previously learned items-like on a multiple choice test

Flashbulb Memory, 350

A unique and highly emotional moment may give rise to a clear, strong, and persistent memory called **flashbulb memory**. However, this memory is not free from errors.



President Bush being told of 9/11 attack.