Memory

I LIKE THAT!
I've got to remember
that for my own
speech.

Four score and seven years
ago, our fathers brought
forth on this continent a…

87 years ago, our parents
brought forth on this
landmass a new country.

Memory Processes

I LIKE THAT!
I've got to remember
that for my own
speech.

Four score and seven years
ago, our fathers brought
forth on this continent a…

Memory Systems
STM Duration:
Brown – Peterson Task

STM Coding:
Conrad (1964)

STM Coding:
Wickens (1972)
STM Capacity:
Miller (1956)

Problems with STM

Working Memory
Pronunciation Time and Phonological Loop

Memory Span and Pronunciation Rate

Neurophysiology of Working Memory
LTM: Levels of Processing

http://academic.udayton.edu/gregelvers/psy522/activities/lop.html

1. Y N 13. Y N
2. Y N 14. Y N
3. Y N 15. Y N
4. Y N 16. Y N
5. Y N 17. Y N
6. Y N 18. Y N
7. Y N 19. Y N
8. Y N 20. Y N
9. Y N 21. Y N
10. Y N 22. Y N
11. Y N 23. Y N
12. Y N 24. Y N

LTM: Levels (Depth) of Processing
Levels of Processing

Self-Reference Effect

LTM: Organization
LTM: Organization

![Graph showing words recalled over trials for organized and random conditions.]

LTM: Elaboration

![Graph showing main ideas recalled over different elaboration levels.]

Encoding-Retrieval Interactions: Recognition Failure of Recallable Words

<table>
<thead>
<tr>
<th>Step</th>
<th>Procedure</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Study list – learn words in all capitals</td>
<td>head – LIGHT  &lt;br&gt; grasp – BABY</td>
</tr>
<tr>
<td>2</td>
<td>Free association – generate 6 words to each presented word</td>
<td>dark ______</td>
</tr>
<tr>
<td>3</td>
<td>Recognition – mark any generated word that were in all capitals on the study list</td>
<td>dark dim light bad light unhappy sad  &lt;br&gt; infant only  ____  ____  ____  ____</td>
</tr>
<tr>
<td>4</td>
<td>Recall – recall the words from the study list in capital letters, using these cues</td>
<td>head  ____  ____  ____  ____  ____  ____  ____  ____  ____</td>
</tr>
<tr>
<td></td>
<td></td>
<td>grasp ______</td>
</tr>
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</table>
Forgetting

- Not forgetting but retrieval failure
- Method of savings
- Decay vs. interference vs. overwriting

Forgetting:

Retroactive vs. Proactive Interference

<table>
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<tr>
<th>Group</th>
<th>Original Learning</th>
<th>Interpolated Learning</th>
<th>Test</th>
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<td>List A</td>
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</tr>
<tr>
<td>Control</td>
<td>List A</td>
<td>Rest</td>
<td>List A</td>
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Forgetting:

Proactive Interference
Neurophysiology of LTM