

## HW week 3

Due on wednesday 19 September 2007

### Reading Passage

Most people can remember a phone number for up to thirty seconds. When this short amount of time elapses, however, the numbers are erased from the memory. How did the information get there in the first place? Information that makes its way to the short term memory (STM) does so via the sensory storage area. The brain has a filter which only allows stimuli that is of immediate interest to pass on to the STM, also known as the working memory.

There is much debate about the capacity and duration of the short term memory. The most accepted theory comes from George A. Miller, a cognitive psychologist who suggested that humans can remember approximately seven chunks of information. A chunk is defined as a meaningful unit of information, such as a word or name rather than just a letter or number. Modern theorists suggest that one can increase the capacity of the short term memory by chunking, or classifying similar information together. By organizing information, one can optimize the STM, and improve the chances of a memory being passed on to long term storage.

When making a conscious effort to memorize something, such as information for an exam, many people engage in "rote rehearsal". By repeating something over and over again, we are able to keep a memory alive. Unfortunately, this type of memory maintenance only succeeds if there are no interruptions. As soon as a person stops rehearsing the information, it has the tendency to disappear. When a pen and paper are not handy, you might attempt to remember a phone number by repeating it aloud. If the doorbell rings or the dog barks to come in before you get the opportunity to make your phone call, you will forget the number instantly. Therefore, rote rehearsal is not an efficient way to pass information from the short term to long term memory. A better way is to practice "elaborate rehearsal". This involves assigning semantic meaning to a piece of information so that it can be filed along with other pre-existing long term memories.

Encoding information semantically also makes it more retrievable. Retrieving information can be done by recognition or recall. Humans can recall memories that are stored in the long term memory and used often. However, if a memory seems to be forgotten, it may eventually be retrieved by prompting. The more cues a person is given (such as pictures), the more likely a memory can be retrieved. This is why multiple choice tests are often used for subjects that require a lot of memorization.

### Reading Comprehension questions

1. According to the passage, how do memories get transferred to the STM?
2. The word "elapses" in paragraph 1 is closest in meaning to:
  - (a) passes
  - (b) adds up

- (c) appears
  - (d) continues
3. All of the following are mentioned as places in which memories are stored EXCEPT the:
- (a) STM
  - (b) long term memory
  - (c) sensory storage area
  - (d) maintenance area
4. Why does the author mention a dog's bark?
5. What is paragraph 2 mainly about?
6. How do theorists believe a person can remember more information in a short time?
7. The author believes that rote rotation is:
- (a) the best way to remember something
  - (b) more efficient than chunking
  - (c) ineffective in the long run
  - (d) an unnecessary interruption
8. The word "it" in the first sentence of the last paragraph refers to:
- (a) encoding
  - (b) STM
  - (c) semantics
  - (d) information
9. The word "elaborate" in paragraph 3 is closest in meaning to:
- (a) complex
  - (b) efficient
  - (c) pretty
  - (d) regular
10. Which of the following is NOT supported by the passage?
- (a) The working memory is the same as the short term memory.
  - (b) A memory is kept alive through constant repetition.
  - (c) Cues help people to recognize information.
  - (d) Multiple choice exams are the most difficult.