***False Memory***

# Introduction

# We sometimes remember things from our previous experiences that did not actually happen. These are called false memories. This lab activity will hopefully convince you that you too can have false memories and provide insight into why your mind creates these false memories.

# Description of Activity

In this lab activity, you will be shown simple and common words one at a time. Although the words will be presented visually, this demonstration would also work if you heard the words or interpreted them one at a time using a system like Braille. The important thing is that you pay attention to each word. After encoding the stream of words, you will be presented with a set of words all at once in a matrix and you will click on some of these words to indicate which of them you previously encountered.

# Words as Simple Memories

# The use of words as stimuli is a simple way to encode or build individual memories. Actual memories consist of a complex set of multisensory stimuli occurring together in specific contexts. The use of words in this activity allows for important experimental control in that the number of syllables and the frequency of their use in language can be manipulated. Another thing that can be manipulated is the similarity of each word during encoding to the set of words presented later during the test. After the list of words is presented, during the memory test, some new words that are similar and some words that are not similar are presented along with identical words that you actually saw before. You may remember the similar words—sometimes referred to as “lures”—as being presented previously. When this happens, it is a false memory because you indicate having seen the word previously when in fact it was never presented to you.

# Schemas & Networks

If you spent some time in a kitchen yesterday and I ask you today what you remember about that experience, you may say you saw a toaster oven. This is because you have a schema for what objects you know to be in most kitchens. When asked about your specific kitchen experience, a schema for kitchen is activated, which includes a network of items typically found within a kitchen. The activation of kitchen items increases the chances that you will report a false memory for things typically found in a kitchen if you are asked to recall all the items in the kitchen you were in yesterday. Likewise, in this lab activity, you may be presented at encoding with words like “canoe,” “fish,” and “smoke.” Such words might evoke a schema for camping as these words activate a network associated with all the things you might do on a camping trip in nature like canoeing and fishing. During the recall test, you may be shown the word “tent” and report that you experienced that word previously when in fact you did not simply because the word “tent” is similar to the network of words that are part of the experience of a camping trip in nature. However, if the word “curtains” is shown at test when it was never presented at encoding, you are less likely to report having experienced it. There is no false memory because “curtains” is not part of the network of activated and similar camping words.

# What Do You Misremember?

# When asked to recall things that you remember from previous experiences, it is important to realize that our memories do not contain perfect representations about what happened. We may report false memories especially if the experience happened a while ago and we were not paying attention to all the stimuli present because we did not know we were going to be asked later about our experience. A powerful lesson in this lab activity is that even though you know that you will be asked at the end about what words you remember, the high degree of similarity among words at encoding and recall leads to the reporting of false memories.