There are three parts to Lab 3. In the first part, you'll help to create the materials for a new sentence comprehension experiment. In the second part, you'll collect pilot data from this experiment, and in the third part you'll analyze the data that the class collects.

The experiment that you'll be working with will investigate the memory operations that build syntactic structure in comprehension. The case used is to examine this is subject-verb agreement. Previous work shows that comprehenders make errors in non-local subject-verb agreement. Comprehenders usually slow down when they read an agreement error (singular subject – plural verb):

*The slogan about the husband were designed to get attention.*

but if there is a plural non-subject in an embedded PP, they slow down less:

*The slogan about the husbands were designed to get attention.*

Wagers, Lau & Phillips (2009) show that this even happens when the subject and the verb are right next to each other and the plural non-subject is far away:

*The musicians that the reviewer praise were fantastic.*

These errors give us insight into the memory system for syntactic parsing. They suggest that comprehenders use a parallel cue-based memory search (so it doesn't matter if the non-subject is linearly close to the verb or not) with cues like ‘plural’ and ‘subject’, so that a partially-matching plural non-subject is sometimes erroneously retrieved.

More recent work asks what kinds of memory cues are used for retrieval: is it just the ones supported by grammatical knowledge (e.g. ‘plural’ and ‘subject’) or is it also ones that might be statistically frequent but not determined by the grammar? An example of the latter might be the word ‘and’. Many of the noun phrases that contain the word ‘and’ are plural (*the husband and wife*), but not all (*the kind and caring husband*). Recently Zoe Schlueter finds that even when it doesn’t indicate a plural NP, the word ‘and’ still seems to be used by the memory system as a cue to plurality:

*The slogan about the kind and caring husband were designed to get attention.*

In the class follow-up, we are going to see whether the word *and* is really critical by comparing it with a control condition where *and* is implicit:

*The slogan about the kind, caring husband were designed to get attention.*

If the word *and* is the critical plural cue, we should not see any facilitation effect in the ‘comma’ condition. But if any kind of coordination, even with an implicit *and*, acts as a plural cue, we should see facilitation in the ‘comma’ condition too.
Our experiment will have six conditions:

1a SgAttGr: The slogan about the husband was designed to get attention.
1b SgAttUngr: The slogan about the husband were designed to get attention.
1c PlAttGr: The slogan about the husbands was designed to get attention.
1d PlAttUngr: The slogan about the husbands were designed to get attention.
1e CommaAttGr: The slogan about the kind, caring husband was designed to get attention.
1f CommaAttUngr: The slogan about the kind, caring husband were designed to get attention.

The first four conditions will serve as controls and will let us determine whether our population is showing the standard agreement pattern from previous literature: the slowdown between SgAttGr and SgAttUngr should be larger than the comparison between PlAttGr and PlAttUngr, because people should erroneously retrieve the non-subject plural from memory.

Conditions 5 and 6 allows us to test a new prediction, which is that people should not make errors if there is no overt and in the sentence.

Your task in Lab 3a is to make 5 sets of 6 items for the new experiment.

Just as in the above we have 1a-1f, we want you to write 5 sets each ranging from a-f. So for each set, you need to write a sentence which can be modified such that it works in each of the conditions a-f.

Constraints on materials:
- Keep the structures constant prior to the critical auxiliary verb; don’t add any extra modifiers that aren’t needed. So you should always start out with Det-N-P-Det, and then the next part varies by condition.
- Within each set, the items should be matched as tightly as possible, especially up to the word following the critical auxiliary verb (note how in the example above, this word is always the same: designed)
- Try to make the items interesting, but you don’t want anything extremely surprising or unusual because that will add variability to the reaction times
- Use words that the average undergraduate will be familiar with