

## Problem 1: Turkish

- 1) Don't look at numbers 17-20 until you've worked for a while on 1-16. You'll see why.
- 2) Turkish has *suffixes*, i.e., endings, that change the shape of the word, instead of using prepositions (*of, from, etc.*) like we do in English. This is called a *case system*, and each different ending is a different *case*.
- 3) One can stack several endings up, one after another, in Turkish. So you can have one ending for plural, followed by one ending meaning 'possessed by first person', followed by another meaning 'possessed by plural', followed by one meaning 'of'. And that's a **short** word.
- 4) Once you get to numbers 17-20, figure out what the changes are in the endings and what causes them. You may not be able to get it, but here's a hint: check out the unchanging parts of the word (called *roots*) that one adds the endings to. What do all the roots in 1-16 have in common that none of the roots in 17-20 have in common?

## Problem 2: Rotokas

- 1) Rotokas is a *root* language, like Turkish (in some ways), and there are roots for a number of verbs in this problem. Roots are unchanging parts of a word to which *inflections* (the kind of process that gets done to the roots; in this case, suffixes) are attached.
- 2) There can be several different kinds of verb root in a language that each take different sets of endings. These are called *inflection classes*; inflection classes of verbs are sometimes called *conjugations*, and inflection classes of nouns are sometimes called *declensions*.
- 3) For future reference, the pattern of inflectional endings is called a *paradigm*; we'll be using that word a lot this term (the adjective form of *paradigm* is *paradigmatic*). And the short statement of "meaning" in English that appears after the verb is called a *gloss*. Don't expect glosses to indicate all the meaning; they're quick and dirty labels, nothing more.
- 4) Notice that there are separate pronouns (*he, I, etc.*) in the English glosses, but only one word in the Rotokas examples. This is because English doesn't have much inflection, and has to use a lot of words to express things that other languages do much more simply in one word by inflection.
- 5) There's a pronoun (*it*) in numbers 10-12 and 22-24, with the verb that translates English *build*. That's because English makes that verb transitive and requires it to have a direct object, whereas it's not necessarily transitive in Rotokas. You get a lot of kludges like this in short glosses; they're intended to give you some information, but they can't possibly give you all of it.

## Problem 3: Amharic

Instead of numbered examples with glosses, this problem presents a paradigm, consisting of four forms of six verbs, arrayed in a six-by-four matrix. The glosses are given for each verb, but not for each form. Your job is to figure out how each form is made, such that, given one form of a different verb, you could say what all the other forms are.

- 1) The past tense and present tense forms shouldn't be a problem in understanding, but "imperative" means the form you use when you're giving an order, and "infinitive" means a special form of the verb that gets used in a number of ways. We often put *to* in front of the infinitive form of a verb in English, but then English doesn't have much morphology, and there's only one verb that has a special form of the infinitive that's different from the present tense.
- 2) Strong hint: notice the vowel patterns in the columns and the consonant patterns in the rows.

#### Problem 4: Mexican Spanish

This problem has a lot of information, and no single "solution", like number 3 did. But it **does** have some generalizations you can draw. Depending on what questions you're asking, of course. Here are some possibly useful questions and observations:

- 1) There are only two *genders* in Spanish: *masculine* and *feminine*.  
How many different ways of marking them are there?  
Are they always distinguished?
- 2) There are two *numbers* in Spanish: *singular* and *plural*.  
How many different ways of marking them are there?  
Are they always distinguished?  
How does number marking interact with gender marking?
- 3) In Spanish, adjectives must be in *agreement* with the nouns they modify.  
How does adjective-noun agreement work?  
(By the way, no.19 is an idiom; normally the adjective follows the noun it modifies).
- 4) Is *xente* plural?  
How can you tell?
- 5) What is the gender of *xente*?  
Of *madre*, *padre*, *poeta*, and *amante*?  
How can you tell?
- 6) Notice that English uses two words, *handsome* and *pretty*, where Spanish uses one word with two suffixes. Spanish is more inflected than English.
- 7) Notice that we use two words, *uncle* and *aunt*, where Spanish uses one word with two suffixes.
- 8) Notice that we use two words, *mother* and *father*, where Spanish uses one word with two prefixes.
- 9) Is (8) above a reasonable hypothesis?  
Why or why not?  
Are (6) and (7) above reasonable?  
Why or why not?
- 10) How do you decide what's a part of the root and what's an *affix* (i.e, a suffix or a prefix)?