FLEx Session– Verbs, Templates and Inflectional Classes

Objectives

- To be able to configure affix templates for the most productive forms of the basic verb types. (Verbs are too complex to cover all possibilities in this exercise.)

- To be able to define inflectional classes for verbs.

- To be able to have the automated parser parse simple verbs.

Why?

Verbs are usually the most complex (and interesting) word categories in a language. We will need to use all the techniques learned so far to parse them. It will require learning some new features of FLEx to parse some verbs. Taking the time to plan how to model the simple forms well will enable you to modify your configuration in FLEx to parse increasingly complex forms as your understanding of the grammar grows. It will also enable FLEx to produce a more accurate grammar sketch for you.

Ad hoc Co-occurrence Prevention Rules

We see that the parser is allowing singular subject-tense prefixes to occur with plural number suffixes and vice-versa. What is needed is an additional level of constraints on the parser to not accept all possible parses that are allowed by the grammar affix templates. Fieldworks has the ability to write "**ad hoc co-occurrence prevention rules**". Writing some rules for Nyangatom we can tell the parser that we do not want to allow singular prefixes to co-occur with plural number suffixes, and to not allow plural prefixes to co-occur with singular number suffixes.

How to add an ad hoc co-occurrence prevention rule.

1. Leave the **Text and Words** view and go to the Grammar view by clicking on the Grammar tab on the lower left. Click on **Ad hoc Rules** which is the tenth item in the list on the upper right.

2. Go to Insert menu and choose **Rule to prevent morpheme co-occurrence**. Click on the white space next to **Key Morpheme**. Then click on the button with the three dots. The **Choose Morpheme and Grammatical Info** window will open. Type "**i**" in the **Find** box. Select the morpheme with the gloss **2.pl.npst**.

3. In the **Cannot Occur** field click the drop down arrow and choose **somewhere before**.

4. Click on the white space next to **Other Morpheme(s)**. Then click on the button with the three dots. The **Choose Morpheme and Grammatical Info** window will open. Type "**i**" in the **Find** box. Select the suffix with the gloss **sg**, then click **OK**. The **Active** box will be checked by default.

5. Go to Insert menu and choose **Rule to prevent morpheme co-occurrence**. Click on the white space next to **Key Morpheme**. Then click on the button with the three dots. The **Choose Morpheme and Grammatical Info** window will open. Type "**i**" in the **Find** box. Select the morpheme with the gloss **2.sg.npst**.

6. In the **Cannot Occur** field, click the drop down arrow and choose **somewhere before**.

7. Click on the white space next to **Other Morpheme(s)**. Then click on the button with the three dots. The **Choose Morpheme and Grammatical Info** window will open. Type "**ete**" in the **Find** box. Select the suffix with the gloss **pl**; then click **OK**. The **Active** box will be checked by default.

8. Click on the **Text and Words**. Go to the **Parser** menu, and then click on **Parse Words in Text**. Verify that more of the verbs are parsed correctly. It may be necessary to clear parsing for all the words in the text before the parser will re-parse the text **Run**.
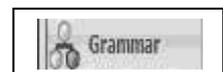
Exercise

1. Have the participants add an ad hoc co-occurrence prevention rule to prohibit the 2.sg.npst prefix **i-** from co-occurring with the plural number suffix **–ete**. Then clear the parsing of the text **Run**, and parse all words in the text. All six words should now parse correctly.

Verb Inflectional Classes

As we have seen earlier, Nyangatom verbs are divided into inflectional classes which is to say that there are two sets of affixes for the verbs that have nothing to do with the phonological environments in which they occur or the shape of the verb stems. Many languages have inflectional classes, and you will need to know how to configure inflectional classes in order to give the parse enough information to parse correctly.

How to add inflectional classes.

1. Leave the **Text and Words** view and go to the Grammar view by clicking on the Grammar tab

on the lower left. Click on **Category edit** which is the first item in the list on the upper right.

2. Click on **Verb** in the second column if you are not already at the **Verb** category. Click in the white space in the **Variant** area. The **Insert Variant** link will become visible; click on it. Enter **broke**, and click **create**.

3. Click on the white space next to **Inflectional Class Info**. The **Insert Inflection Class** link will appear; click on the link. FLEx will create an Inflectional Class entry.

4. In the Inflection Class Name field enter: **KI-class**.

5. In the abbreviation field enter: **KI**.

6. Click on the **Grammar** view.

Exercise

1. Have the participants add the **TO-Class** to the grammar of Nyangatom.

2. Have the participants add **muj =** "eat" and the singular and plural non-past subject-tense prefixes for the KI-class into the lexicon. Use the chart below for the prefixes.

Person Prefixes		non-past	
number	person	TO-class	KI-class
SG	1st	a-	e-
SG	2nd	i-	i-
SG	3rd	e-	i-
PL	1st	e-	i-
PL	2nd	i-	i-
PL	3rd	e-	i-

3. Copy the contents of the file **verb_run.txt** and copy it into a new text. Name the new text **"Eat".**