# FLEx Session– Noun Classes, Number, Gender Part One

# Objectives

- To be able to configure FLEx for noun agreement inflectional features including noun classes and gender.
- To be able to use the Inflectional Gloss Builder to gloss noun agreement morphemes.
- To be able to enter properly glossed noun agreement morphemes into the lexicon.

## Why?

In Ethiopian languages it is common for nouns to be marked for inflectional class and gender. FLEx has some specific ways to configure noun agreement affixes that if followed will give better parser performance, a better grammar sketch of the language and be more in line with the most common standards for marking up linguistic data. It is important to distinguish between **inflectional features**, and **inflectional classes** when modeling a language in FLEx. Typically, noun classes are modeled as inflectional features in FLEx. You can read the "Introduction to Parsing" Resource in the Fieldworks help menu for a fuller discussion of this distinction, if needed.

Learning to use FLEx's **Inflectional Gloss Builder (IGB)** will help you mark or tag your data in a way consistent with the Leipzig Guidelines for glossing morphemes. The **IGB** is not pre-configured for all possible morphemes. In this workshop we will attempt to make do with those categories that it does have. In real life you are free to use glosses that are not possible with the **IGB**, but you will have to enter those manually.

# **Configuring Noun Agreement Affix**

First we will configure noun agreement for the project as we add nouns to the lexicon. Then we will practice configuring noun agreement as we add affixes to the lexicon. Once all affixes are defined, the process of entering new nouns becomes easier. Start FLEx and open **Nyangatom** project. Nyangatom has three noun classes with some "subtypes". We will define them in stages.

### How to add a noun of a new class to the lexicon

- 1. Create a new entry for **ekilye** "man". Type **kilye** in the lexeme form, **ekilye** in the citation form, and in the field **Singular**.
- 2. Type **ngikilyoko** in the **Plural** field. The **Morph Type** should be **stem**. The **Grammatical Info** should be **Noun**.
- 3. Create a new entry for e-. The Morph Type should be prefix.

- 4. Click on the drop down arrow in the Affix Type box; choose Inflectional.
- 5. Click on the drop down arrow in the Attaches to Category box; choose Noun.
- 6. Click on the **Inflectional Affix Gloss Builder** (IAGB) link. The **Morphosyntactic Gloss Assistant** window will appear; click on the **plus sign (+)** to the left of the **noun-related** folder.
- 7. Click on the **plus sign (+)** to the left of the **noun agreement** icon.
- 8. Click on the **plus sign (+)** to the left of the **gender** icon.
- Click on the radio button to the left of masculine gender. Then click the Insert button which is in the middle of the window. "Masculine gender: m" will be added to the Selected gloss components list.
- 10. Click on the **plus sign (+)** to the left of the **number** icon.
- 11. Click on the radio button to the left of **singular number**. Then click the **Insert** button which is in the middle of the window. "Singular number: sg" will be added to the **Selected gloss components** list.
- 12. Click on the **plus sign (+)** to the left of the **noun class** icon.
- 13. Click on the radio button to the left of **human class**. Then click the **Insert** button which is in the middle of the window. "Human class: hum" will be added to the **Selected gloss components** list.
- 14. Click on the **Accept Gloss** button. The Morphosyntactic Gloss Assistant window will close and the gloss **hum.m.sg** will be copied in the gloss field for the prefix **e**-.
- 15. Click the **Create** button and the entry for the prefix **e-** will be completed.

#### How to add an irregular plural form of a noun of a new class to the lexicon

- 1. In the entry for **ekilye**, click in the white space in the **Variant** area. The **Insert Variant** link will become visible; click on it. Enter **kilyoko** and click **create**.
- Now to set the Variant Type, click on the white space next to Variant Type. Then click on the button with the three dots. The Choose Variant Type Window will appear. Click on the plus sign (+) to the left of the Irregularly Inflected Form, select plural, then click OK. The Show Minor Entry will be checked by default.
- 3. Now we need to make an entry in the lexicon for the masculine plural prefix for the human noun class. Create a new entry and enter **ngi-**. The **Morph Type** should be **prefix**.
- 4. Click on the drop down arrow in the Affix Type box; choose Inflectional.
- 5. Click on the drop down arrow in the Attaches to Category box; choose Noun.
- 6. Click on the **Inflectional Affix Gloss Builder** (IAGB) link. The **Morphosyntactic Gloss Assistant** window will appear; click on the **plus sign (+)** to the left of the **noun-related** folder.
- 7. Click on the **plus sign (+)** to the left of the **noun agreement** icon.

- 8. Click on the **plus sign (+)** to the left of the **gender** icon.
- Click on the radio button to the left of masculine gender. Then click the Insert button which is in the middle of the window. "Masculine gender: m" will be added to the Selected gloss components list.
- 10. Click on the **plus sign (+)** to the left of the **number** icon.
- Click on the radio button to the left of **plural number**. Then click the **Insert** button which is in the middle of the window. "Plural number: pl" will be added to the **Selected gloss components** list.
- 12. Click on the **plus sign (+)** to the left of the **noun class** icon.
- 13. Click on the radio button to the left of human class. Then click the Insert button which is in the middle of the window. "Human class: hum" will be added to the Selected gloss components list.
- 14. Click on the **Accept Gloss** button. The Morphosyntactic Gloss Assistant window will close and the gloss **m.pl.hum** will be copied in the gloss field for the prefix **ngi-**.
- 15. Click the **Create** button and the entry for the prefix **ngi-** will be completed.

#### Adding a noun of the Diminutive class to the lexicon for the first time

- Create entries for i-koku "child" and its noun class prefix i-. Use the Inflectional Affix Gloss Builder to create the gloss for the prefix i-. The analysis that we have been given says that "ikoku" has the gender "diminutive", but since this gender is not available in the IAFGB we will use neuter. The gloss we want to build is n.sg.hum.
- 2. The plural of **ikoku** is **ngi-de**. Create a **Variant** specifying **de** as the **plural** of **koku**. Add **ngide** to the **Plural** field of **koku**.
- 3. The neuter plural human prefix is **ngi**-. In order for the parser to distinguish between neuter and masculine plural nouns we need to create another lexical entry for **ngi-**, but this time give it the gloss **n.pl.hum** using the **Inflectional Affix Gloss Builder**.
- 4. Next we need to make ngi- "n.pl.hum" another sense of ngi- "m.pl.hum". To do this, click on the ngi- "n.pl.hum"; enter then go to the Tools menu and choose Merge Entry with... and choose ngi- "m.pl.hum". The prefix ngi- should now have two senses.

## Exercise

- 1. Have the participants add the femine.singular.human noun **a-pese**, "girl" to the lexicon. Create an entry for the noun class prefix **a-** and build a gloss using the **Inflectional Affix Gloss Builder**.
- 2. Have participants create entries for the plural **pesuru** and its prefix **nga-**. **Pesuru** should be a plural variant of **pese**. Use the **Inflectional Affix Gloss Builder** to build the gloss for the prefix **nga-**. Enter singular and plural forms in the **Singular** and **Plural** custom fields in the **pese** entry.
- 3. Have participants create entries for **e-sapat/ngi-sapa** "boy/boys".

- 4. Have participants complete entry for **a-beru** "woman". The plural is **nga-beru**; include it in the **Plural** custom field in the **beru** entry.
- 5. Have participants create entries for neuter.human nouns: **i-ingwoku** "dog" and **ngu-ungwokwo** "dogs". Notice that **ngu-** is an allomorph of **ngi-** that occurs before vowels. Add this **allomorph** and its **environment** to the **ngi-** entry.