Short Summary of What We’ve Learned About Kikuyu

In these notes, I summarize some of the main features of the Kikuyu language that we’ve learned about thus far in class. Along the way I note some questions for future research, either together as a class or individually in your own interviews and final projects.

1. **Verbal Morphology**

Like all Bantu languages, Kikuyu is ‘highly inflected’. Indeed, as we’ve seen, a single word or Kikuyu can correspond to an entire sentence of English (e.g. I was dancing).

A technical term that linguistics sometimes use for such languages is ‘polysynthetic,’ a term that really means nothing more than ‘a language with really big verbs that can stand for a whole sentence.’

Since there’s so much verbal morphology in Kikuyu, we spent most of the first month exploring some of it. As we saw, decoding the verbal morphology of a language like Kikuyu is far from a simple task, and it’s pretty clear that there’s still a whole lot we don’t understand.

Here, though, is a summary of what (we think) we do understand. First, the inflected forms that we’ve systematically studied thus far are composed of the following morphemes, arranged in the following orders.

(1) **Morphological Template for Kikuyu Verb**

<table>
<thead>
<tr>
<th>(nĩ)</th>
<th>Subject Agreement</th>
<th>Tense Prefix</th>
<th>ROOT</th>
<th>Aspect Suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>ndĩ</td>
<td>(1sg)</td>
<td>a</td>
<td>(past)</td>
<td>ire (perfective)</td>
</tr>
<tr>
<td>ũ</td>
<td>(2sg)</td>
<td>ra</td>
<td>(pres. imp.)</td>
<td>aga (imperfective)</td>
</tr>
<tr>
<td>a</td>
<td>(3sg)</td>
<td>ga</td>
<td>(future)</td>
<td></td>
</tr>
<tr>
<td>tũ</td>
<td>(1pl)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mũ</td>
<td>(2pl)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>ma</td>
<td>(3pl)</td>
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<tr>
<td>a</td>
<td>(ũ cio class)</td>
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<td></td>
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<tr>
<td>řĩ</td>
<td>(řũu class)</td>
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<tr>
<td>kĩ</td>
<td>(kĩ class)</td>
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<tr>
<td>y</td>
<td>(ĩyo class)</td>
<td></td>
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</tr>
</tbody>
</table>

Many of the glosses appearing in the chart above are just rough ‘first guesses’ regarding the function of the prefixes in question. That is, although it’s clear what the meaning of each subject agreement prefix is, it’s less clear what the meaning of the ‘tense prefix’ prefix *a*- is, or the meaning of the suffix –*aga*. All we know is that they appear in the following inflectional ‘strings’.
Tense and Aspect Forms that We’ve Seen Thus Far

a. **Past Perfective** 
   \((ni)\) - Subj. Agr. - \(a\) – ROOT - \(ire\)

   **Example**
   \(nîndateng’erire.\)
   \(nî - ndî - a - teng’era - ire.\)
   *I ran.*

b. **Present Imperfective** 
   \((ni)\) - Subj. Agr. - \(ra\) – ROOT

   **Example**
   \(nîndirateng’era.\)
   \(nî - ndî - ra - teng’era.\)
   *I ran.*

c. **Past Imperfective**
   \((ni)\) - Subj. Agr. - \(a\) – ROOT - \(aga\)

   **Example**
   \(nîndathiaga.\)
   \(nî - ndî - a - thie - aga\)
   *I went.*

d. **Future**
   \((ni)\) - Subj. Agr. - \(ga\) – ROOT

   **Example**
   \(nîngateng’era\)
   \(nî - ndî - ga – teng’era\)
   *I will run.*

A Note Regarding the Prefix \(nî\)

We’ve seen that the prefix \(nî\) which often begins these verbal forms has a rather ‘mysterious’ function. Here are some pointers that Nancy has given us thus far:

a. You absolutely need to include \(nî\) if the only word in the sentence is the verb itself. However, if there are other words in the sentence, \(nî\) is optional.

b. If you have two sentence conjoined (or juxtaposed together), you absolutely cannot put \(nî\) on the second sentence (though it’s optional on the first; see (a) above).

Full Disclosure: Prefixes like \(nî\) exist in some other Bantu languages as well, and what their actual function is in these languages remains a deep mystery.
A Puzzle for Future Investigation

On 9/29/2010, Nancy gave us the following verbal forms, which hint at a much more complex tense system than we’ve imagined thus far.

a. nǐŋũthomaga rǔcině
   *I was reading this morning*

b. nǐŋũthoma ūmũthǐ
   *I will read today.*

c. Observations
   (i) Both these forms seem to contain the prefix gũ. Both of them make reference to times during the present day. (And Nancy confirmed that these are the only times they can make reference to.)
   (ii) The form in (a) was translated as a past imperfective, and contains the suffix aga, which was found in other past-imperfective forms.
   (iii) The form in (b) was translated as a future, and like the other future forms we collected, contains no suffix.

d. Questions:
   (i) How could one affix (gũ) be both a past-tense affix and a future-tense affix?
   (ii) What other kinds of distinctions exist within the tense-aspect system of Kikuyu? (Is there a separate past or future tense for ‘two days ago’?...)

Another Set of Questions for Future Investigation

- So far, we’ve gotten agreement markers for subjects. A big part of this was looking at sentences whose subjects were pronouns (particularly ‘local person’ pronouns).
- We’ve not yet asked about sentences with local person direct objects! Those might yield yet another layer of morphological complexity…
- We’ve also not looked very much at passive forms of transitive verbs, though we already have some ideas as to their structure…

2. Phonology

In order to hypothesize the morphological analyses above, we’ve also had to propose a variety of phonological rules. These rules would take as input the hypothesized underlying forms output
by the morphology, and give as output the surface phonological forms that Nancy actually gives as translations.

(5) **The Vowel-to-W Rule**

\[
V^{[+\text{round}]} \rightarrow /w/ / \_\_ a \ ]_{\text{VERB}}
\]

*A rounded vowel becomes a ‘w’ when it precedes an ‘a’ in the verb.*

(6) **The Vowel Deletion Rule**

\[
V^{[-\text{round}]} \rightarrow \emptyset / \_\_ V \ldots \ ]_{\text{VERB}} ; \text{UNLESS} \_\_ [\text{ROOT} V \ldots]
\]

*An unrounded vowel deletes when it precedes any vowel in the verb, unless that vowel is the first segment of the root.*

We’ve seen the ‘Vowel-to-W Rule’ at play in the subject agreement morphology of the language, as well as in the morphology of infinitive forms.

(7) **Illustration of Vowel-to-W Rule**

a. nǐtwateng’eraga *I was running*
   nǐ - tū - a - teng’er - aga

b. kwona *to see*
   kū - ona

We’ve seen the vowel-deletion rule at play in the verbal prefixes and suffixes of the language. The exception clause added to the rule is important for deriving forms like (8b) below.

(8) **Illustration of the Vowel-Deletion Rule**

a. nǐndateng’erire *I ran*
   nĩtheless, early - a - teng’era - ire.

b. nǐtwainire *We danced*
   nĩtheless, tu - a - ina - ire.

When examining future tense forms, we also had reason to posit the following phonological rule. It’s a weird one, and probably masks a fundamental misunderstanding of something, but it’s a stop-gap that will work for the moment.
Crazy First-Person Singular Rule

\[ \text{ndig} \rightarrow \text{ng} \ / \ [\text{VERB} \ldots] \]

The sequence ‘ndig’ always gets simplified to just ‘ng’ anywhere within the verb.

This rule can be seen at play in the verbal forms (2d) and (4a,b) above. The fact that we see this rule at play in both future forms and past imperfective forms should lead us to conclude that there is indeed something general going on here, as weird as the rule in (9) might seem at present.

Another rule that we’ve encountered often in class is one that transforms \( k \) into \( g \) in an interesting range of environments.

The K-to-G Rule

\[ k \rightarrow g \ / \ [\text{V/N/NP} \ldots \ { \text{th, t, k} } \ldots] \]

An underlying ‘\( k \)’ surfaces as a ‘\( g \)’ if it precedes either ‘\( \text{th} \)’, ‘\( t \)’ or ‘\( k \)’ in (i) a verb, (ii) a noun, or (iii) a noun phrase.

The exact phonological environment for this alternation is still unclear. However, we’ve seen it take place in the following environments.

Illustrations of K-to-G Rule

a. Infinities
   \[
   \text{gūthoma} \quad \text{to read}
   \]
   \[
   \text{kū - thoma}
   \]

b. Subject Agreement
   \[
   \text{Kīhīi nīgīteng’erire} \quad \text{the boy ran}
   \]
   \[
   \text{Kīhīi nī - kī - teng’era – ire}
   \]

c. Possessive Phrases
   \[
   \text{kīratū gīa kīhīi} \quad \text{The boy’s shoe}
   \]
   \[
   \text{kīratū kī - a kīhīi}
   \]

Question for Future Research

Given the existence of the ‘K-to-G Rule’, we might question whether the affixes \( ga \) (1), \( aga \) (1) and \( gū \) (4) really have ‘\( g \)’ in their underlying forms…
3. Syntax

We have collected the following ‘Phrase Structure’ rules for Kikuyu sentences. These rules capture the fact that Kikuyu seems to be a ‘rigid SVO’ language.

(13) **Phrase Structure Rules for Sentence**

\[
S \rightarrow NP \ VP \\
VP \rightarrow V_{\text{INTRANS}} \\
VP \rightarrow V_{\text{TRANS}} \ NP
\]

(14) **Questions for Future Research**

We’ve not yet fully explored the possible structure of VPs in Kikuyu. Among the many questions we could ask, the following two are rather apparent:

a. What do *ditransitive* sentences in Kikuyu look like?
   (e.g. *Mwangi gave Kamau the book.*)

b. What does *adverbial modification* in Kikuyu look like?
   (e.g. *Mwagi danced quickly / at three o’clock / next to the house, etc., etc.*)

We’ve also collected the following basic information regarding the structure of NPs in Kikuyu.

(15) **Phrase Structure Rules for NPs**

\[
NP \rightarrow N \ (\text{DEM}) \ (\text{PossP}) \ (\text{ADJ})
\]

This rule captures the fact that the NPs of Kikuyu can consist of all the following elements:

- A noun alone (interpretable as a proper name, indefinite or definite)
  \( N \)

- A noun followed by a single demonstrative, possessive or adjective
  \( N \ \text{DEM} \quad ; \quad N \ \text{PossP} \quad ; \quad N \ \text{ADJ} \)

- A noun followed by a demonstrative followed by a possessive or an adjective or both
  \( N \ \text{DEM PossP} \quad ; \quad N \ \text{DEM ADJ} \quad ; \quad N \ \text{DEM PossP ADJ} \)

- A noun followed by a possessive followed by an adjective
  \( N \ \text{PossP ADJ} \)

We saw that Kikuyu also allows for certain word-orders other than the ones generated above. To capture these in our grammar, we introduced the (optional) movement rules below.
Movement Rules for NPs

a. Noun-Demonstrative Inversion

N DEM → DEM N
‘Any demonstrative can optionally precede the N’

b. Possessive-Adjective Inversion

PossP ADJ → ADJ PossP
‘Any adjective can optionally precede the Possessor’

The fact that our grammar of Kikuyu consists of only the rules above captures the following facts, which we observed in class:

- Except for the demonstrative, nothing can precede the N in an NP
- Except for the N, nothing can precede the demonstrative in an NP (though Nancy mentioned that such ‘reorderings’ are OK in ‘poetic speech’).

Finally, we begin to piece together the syntax of possessive phrases last class, and came to the following set of rules.

Phrase Structure Rules for Possessive Phrases

PossP → Possessive Pronoun
PossP → Possessive-Marker NP

Possessive Pronoun → akwa ‘my’
Possessive Pronoun → aku ‘your (sg)’
Possessive Pronoun → ake ‘his’
Possessive Pronoun → iitū ‘our’
Possessive Pronoun → anyu ‘your (pl)’
Possessive Pronoun → ao ‘their’
Possessive Marker → a

Question for Future Research

We’ve not yet fully explored the possible structure of NPs in Kikuyu. Among the many questions we could ask, the following two are rather apparent:

a. What do quantificational phrases in Kikuyu look like?
   (e.g. many books, some books, all books, five books, etc.)

b. What do relative clauses in Kikuyu look like?
4. Gender Classes and Agreement

Thus far, we’ve found that the Kikuyu language has at least the following four gender classes. For convenience’s sake, we are currently organizing these classes around the form of the demonstrative *that* which the Ns appear with.

(19) Gender Classes of Kikuyu

a. ucio class
   that ucio
   this uyū
   Noun Prefix: mū
   Subject Agreement Prefix a
   Examples mūndū ‘person’
           mūtū ‘tree’

b. riū class
   that riū
   this rirī
   Noun Prefix: i
   Subject Agreement Prefix ri
   Examples ihiga ‘stone’
           ibuku ‘book’

c. kiu class
   that kiū
   this ĕkī
   Noun Prefix: kī
   Subject Agreement Prefix kī
   Examples kīhū ‘boy’
           kīratū ‘shoe’

c. iyo class
   that iyo
   Noun Prefix: n
   Subject Agreement Prefix y
   Examples nyūmba ‘house’
           ngui ‘dog’
We’ve found that gender agreement with a noun occurs in (at least) the following environments.

(20) **Environments for Gender Agreement**

a. **Subject Agreement**
A Kikuyu verb agrees in gender with its subject. The subject agreement morpheme depends upon the gender in question (see (1))

(i) kĩhĩ nĩgĩateng'eri re the boy ran.
(ii) ngui nĩyateng'eri re the dog ran.

Side-Note for Future Research:
Note that the verbal form in (i) with subject agreement marker gĩ is not what our ‘V-deletion’ rule in (6) would predict!...

b. **Adjectival Agreement**
An adjective in Kikuyu agrees in gender with the N it modifies. Generally speaking, the adjective seems to bear the same prefix as the noun itself.

(i) kĩhĩ kĩne ne nĩgĩateng'eri re The big boy ran.
(ii) mũndũ mũne ne nĩateng'eri re The big person ran.

c. **Possessor Agreement**
A possessive phrase in Kikuyu agrees in gender with the N it modifies. Generally speaking, the possessive phrase seems to bear the *subject agreement* prefix of the noun class. However, one counter-example to this generalization is that possessive phrases modifying nouns of the ũcio-class bear the prefix w.

(i) kĩratũ kĩany u your (pl) shoe
(ii) mũtũ wa Mwangi Mwangi’s tree.

d. **Demonstrative Agreement**
A demonstrative in Kikuyu agrees in gender with the N it modifies. Thus far, the form of the demonstrative seems to be unpredictable, and is summarized under the chart in (19).

(21) **Some Questions for Future Research**

- What about other noun classes?
- What do the plural forms of these various nouns and modifiers look like?
- What about NPs with more than one adjective? What do they look like?
5. A Variety of Subjects to Look at in More Detail

Here is a list, in no particular order, of subjects that we could now begin to explore more systematically. Several of these were already mentioned above.

Object agreement (with local person objects)

Reflexive marking (‘himself’, ‘herself’, ‘myself’, etc.)

Reciprocal marking (‘each other’)

Negation

Ditransitives

Adverbial Modifiers (including prepositional phrases)

Relative Clauses

Quantificational Phrases

Independent pronouns

Subordinate Clauses (finite and non-finite)

Questions (yes/no questions and ‘wh-questions’)

Plurals