

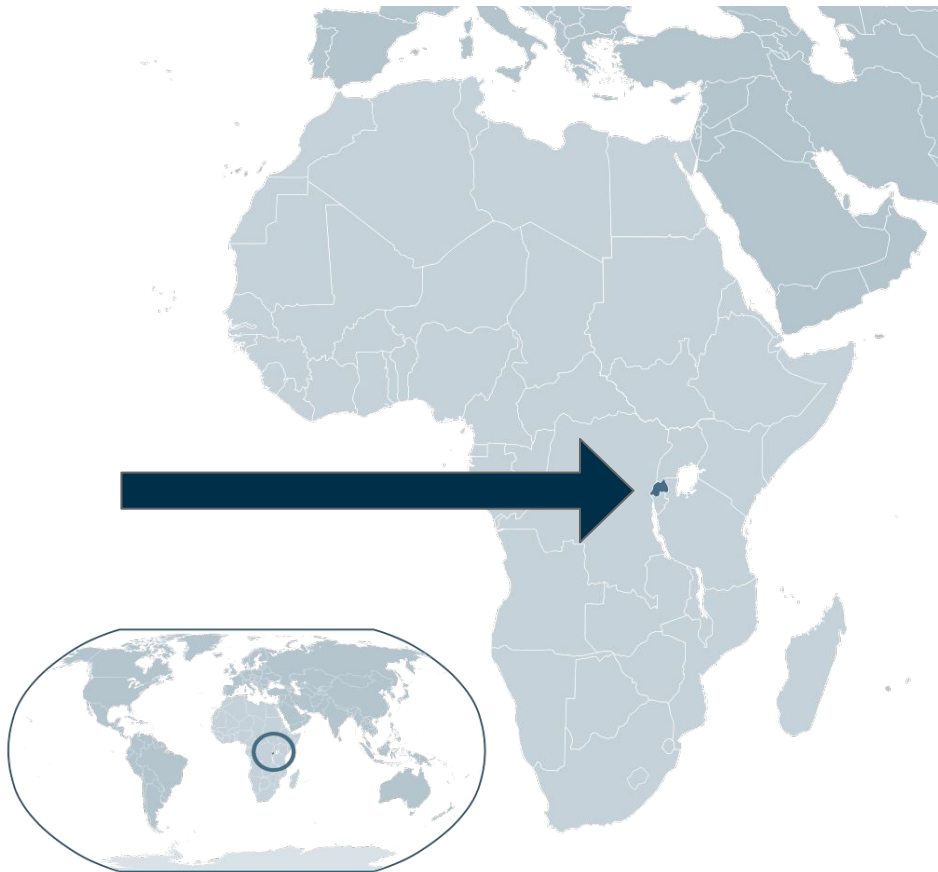
# Polysemy, Distribution, and Variation in Kinyarwanda Verbal *ra-*

Child Language Proseminar

Adam An

A dark blue diagonal gradient bar that starts from the bottom left and extends towards the top right, covering the lower half of the slide.

- Bantu language
- [iciɲargwa:nda]  
"ee-cheen-yar-gwan-da"
- ~ 10 million speakers
- Verbal morphology with many affixes



# Morphological complexity

***U-ra-gi-som-a-ho.***

# Morphological complexity

you (subject)  
progressive  
it (object)  
read  
incomplete action  
there

***U-ra-gi-som-a-ho.***

2sg.SBJ-PROG-7.OBJ-read-IPFV-16.LOC

'You're reading it there.'

# Morphological complexity

you (subject)  
*progressive*  
it (object)  
read  
incomplete action  
there

***U-ra-gi-som-a-ho.***

2sg.SBJ-**PROG**-7.OBJ-read-IPFV-16.LOC

'You're **reading** it there.'

***rd-***

A large, stylized graphic of the letters 'ra' in a bold, sans-serif font. The 'r' is a dark reddish-brown color, and the 'a' is a lighter, more vibrant red. The letters are positioned behind a horizontal grey band.

Five Reasons *ra-* is Hard to Acquire

## Reason 1

*ra*- has (at least!)  
**three different  
functions.**



## Reason 1

*ra-* has (at least!)  
**three different  
functions.**

**present progressive**  
**proposition-finality**  
**phonological**

We've already seen the **progressive *ra-***

you (subject)  
**progressive**  
it (object)  
read  
incomplete action  
there

***U-ra-gi-som-a-ho.***

2sg.SBJ-**PROG**-7.OBJ-read-APPL-IPFV-16.LOC

'You're **reading** it there.'

# Proposition-finality

*Proposition*  $\approx$  "facts I'm stating about the world"

# Proposition-finality

*Proposition*  $\approx$  "facts I'm stating about the world"

"You fortunately arrived early."

# Proposition-finality

*Proposition*  $\approx$  "facts I'm stating about the world"

**propositional** content  
corresponds to things in the world

"You fortunately arrived early."

# Proposition-finality

*Proposition*  $\approx$  "facts I'm stating about the world"

not part of the proposition

**propositional** content  
corresponds to things in the world

"You fortunately arrived early."

# Proposition-finality

In Kinyarwanda, the proposition is reflected in **word order**

*Wahageze*

you arrived

*kare*

early

*ku bw'amahirwe.*

fortunately

# Proposition-finality

In Kinyarwanda, the proposition is reflected in **word order**

The proposition has to stay together.

<i>Wahageze</i>	<i>kare</i>	<i>ku bw'amahirwe.</i>
you arrived	early	fortunately



# Proposition-finality

*ra-* obligatorily appears on a verb that is **proposition-final**.

*Wara*hageze

you arrived

*ku bw'amahirwe.*

fortunately

## Reason 1

*ra-* has (at least!)  
**three different  
functions.**

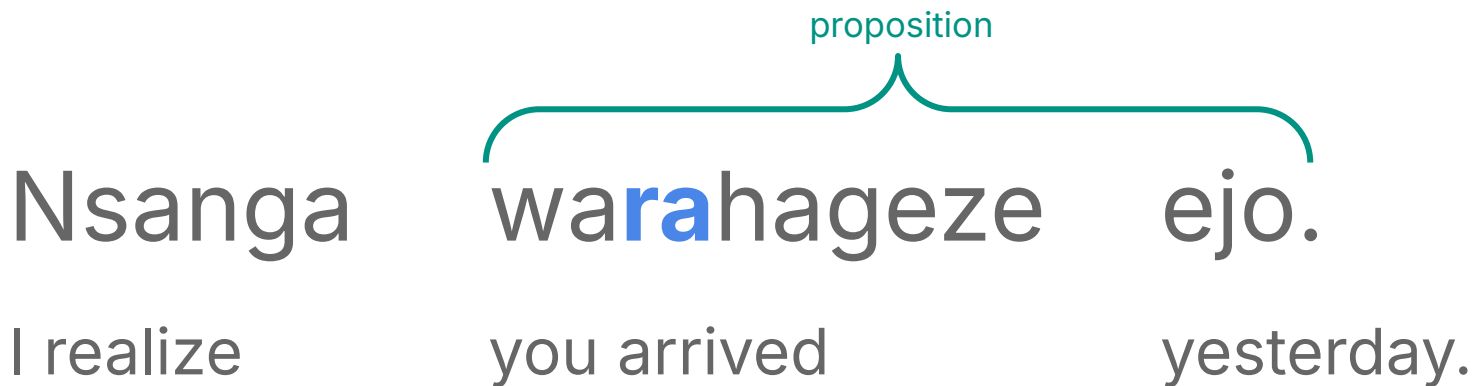
**present progressive**

**proposition-finality**

**phonological**

# Phonological

In some embedded contexts, a *ra-* appears that isn't progressive or proposition-final.



# Phonological

I argue that this *ra-* is phonologically inserted for homophony avoidance: *wahageze* is “taken”. (curious? ask me!)

Kinyarwanda knowers probably aren’t computing homophony on the fly - they’re probably memorizing a semantically and structurally unmotivated exception.

Nsanga      warahageze      ejo.

I realize

you arrived

yesterday.

## Reason 1

*ra-* has (at least!)  
**three different  
functions.**

**present progressive**

**proposition-finality**

**phonological**

## FORMS

**ra-**

## FUNCTIONS

present progressive

proposition-finality

phonological

A complicated form-function mapping

## Reason 2

The different functions of *ra-* draw on different kinds of linguistic knowledge.

**present progressive**

**proposition-finality**

**phonological**

# What do you know when you know *ra-*?

## Present progressive

Only one that  
corresponds to  
**something in the world**

Aspect is a late  
acquisition (Valian 2006  
via Guasti 2016)

## Proposition-finality

Requires **structural  
knowledge** of a  
functionally-motivated  
syntactic boundary

You can't get this right  
if your structure isn't  
right

## Phonological

If it's computed on the  
fly, requires  
**morphophonological  
knowledge**

If it's not computed on  
the fly, requires  
memorization of  
exception unmotivated  
by same reasons as  
other two



## Reason 3

Many morphosyntactic contexts **forbid** *ra-*.

A **present progressive**,  
**proposition-final**, or  
**phonologically**  
**disambiguated** verb **does**  
**not always have** *ra-*.

## Present progressive

Barasoma      ibitabo.  
they are reading      books

## Proposition-finality

Barasomye      rwose.  
they read      definitely

## Phonological

Nsanga      barasomye.  
I realize      they read

# Negation forbids *ra-*

## Present progressive

Barasoma            ibitabo.  
they are reading    books

Ntibasoma            ibitabo.  
they aren't reading    books

## Proposition-finality

Barasomye        rwose.  
they read            definitely

Ntibasomye        rwose.  
they didn't read    definitely

## Phonological

Nsanga    baraomye.  
I realize    they read

Nsanga    ntibasomye.  
I realize    they didn't read

# Negation forbids *ra-*

## Present progressive

Barasoma      ibitabo.  
they are reading    books

Ntibasoma      ibitabo.  
they aren't reading    books

## Proposition-finality

and a whole slew of other environments...

*relative clauses*  
*embedded clauses*  
*quotatives*  
*subjunctives*  
*imperatives*  
*infinitives*  
*jussives...*

## Phonological

Nsanga      barasomye.  
I realize      they read

Nsanga      ntibasomye.  
I realize      they didn't read

## Reason 3

A Kinyarwanda-acquiring child does not get to rely on *ra-* as the **sole cue of any of the three functions.**

## FORMS

**ra-**

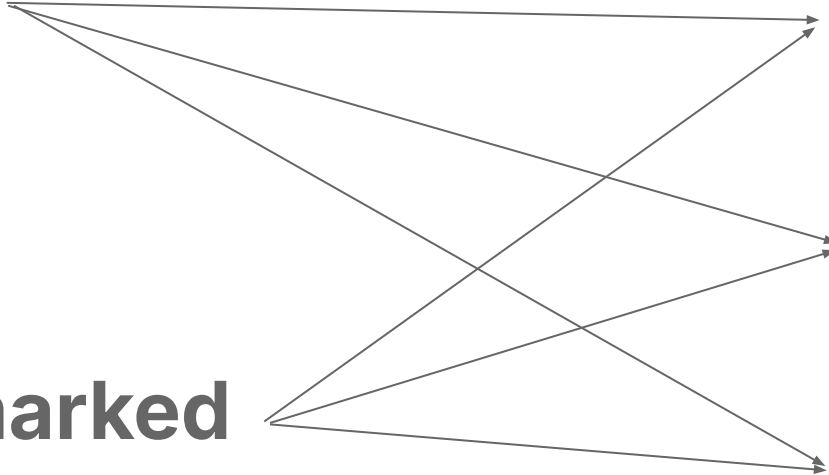
**unmarked**

## FUNCTIONS

present progressive

proposition-finality

phonological



A very complicated form-function mapping

## Reason 3

The unmarked verbs themselves have a host of other functions.

This frequently results in **ambiguity**.

POSITIVE

PROGRESSIVE

Barasomye ibitabo.

"They're reading books."

NOT  
PROGRESSIVE

Basomye ibitabo.

"They read books."

In positive sentences, *ra-*  
disambiguates present progressive  
from other aspects.



POSITIVE

PROGRESSIVE

Barasoma ibitabo.

"They are reading books."

NOT  
PROGRESSIVE

Basoma ibitabo.

"They read books."

But with *ra-* forbidden in negation, there's  
nothing to disambiguate these two.

NEGATIVE

Ntibasoma ibitabo.

"They aren't reading books."

Ntibasoma ibitabo.

"They don't read books."

## FORMS

**ra-**

**unmarked**

## FUNCTIONS

present progressive

**other meanings**

proposition-finality

**other meanings**

phonological

**other meanings**

A very, very complicated form-function mapping

## Reason 4

*Ra-* use is subject to **variation.**

# Negation forbids *ra-*

## Present progressive

Barasoma      ibitabo.  
they are reading    books

Ntibasoma      ibitabo.  
they aren't reading    books

## Proposition-finality

Barasoma      ibitabo.  
they are reading    books

Ntibasoma      ibitabo.  
they didn't read    books

## Phonological

Remember this slide?

# Negation forbids *ra-*

## Present progressive

Barasoma ibitabo.  
they are reading books

Ntibasoma ibitabo.  
they aren't reading books

## Proposition-finality

Baraso  
they

Ntibaso  
they didn't read

## Phonological

somye.  
d

somye.  
they didn't read

In other work, I show that **about 25% of Rwandans can in fact say *ra-* here:**

Ntibarasoma ibitabo.

## Reason 4

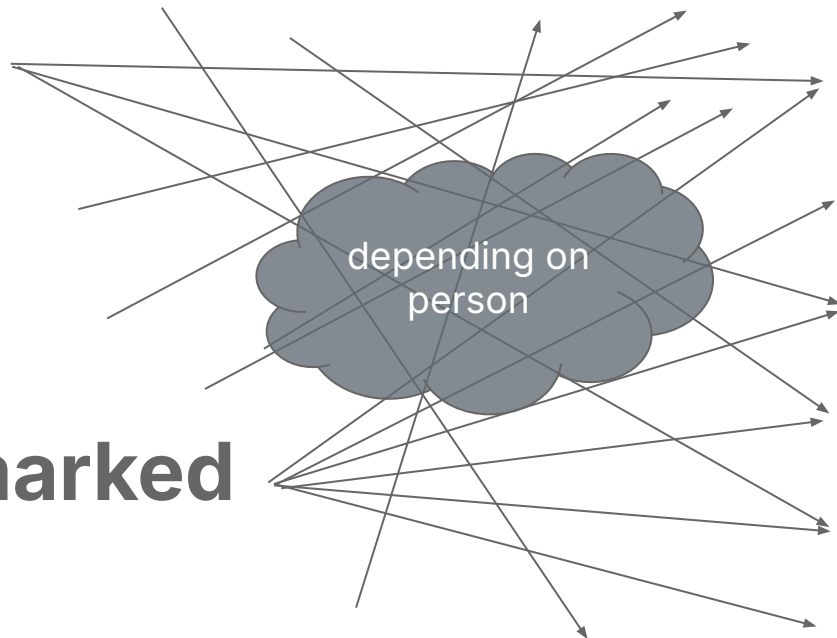
*Ra-* use is subject to **variation**.

→ Kinyarwanda-acquiring children are exposed to **conflicting grammars** in their input!

## FORMS

ra-

unmarked



## FUNCTIONS

present progressive

**other meanings**

proposition-finality

**other meanings**

phonological

**other meanings**

A very, very, very complicated form-function mapping

## Reason 5

In practice, *ra-* is  
**infrequent.**





"Rwandan beef, you'll find it here!"

The only *ra*- I saw in twelve days of being in Rwanda

## Reason 5

Instances of *ra-* in the input are relatively infrequent.

These infrequent tokens are all a Kinyarwanda-acquiring child has to work with!

# Five reasons why *ra-* is hard to acquire

1. *ra-* has different functions.
2. Those functions draw on different kinds of linguistic knowledge.
3. *ra-* does not consistently mark those functions.
4. *ra-* use is subject to variation.
5. *ra-* is infrequent.

# **A comprehensive literature review of Kinyarwanda acquisition**

# Let's talk!

What interests you? Teach me!

Language Acquisition, second edition: The Growth of Grammar - Guasti 2016

Young Children's Understanding of Present and Past Tense - Valian 2006

Thank you: Utako Minai

# Murakoze!

Thank you!

# Murakoze!

Thank you!