



Grammatical Tone Interaction in Rere (Koalib) Possessives

NEŞE DEMİR

UC SAN DIEGO

Introduction: Rere



The Nuba Mountains inside Sudan

South – Kordofan
(Nuba Mountains)



 Koalib Area

Niger-Congo
Kordofanian
Heibanian

~100,000 speakers

(Quint 2006, Quint 2009, Simons & Fenning 2018)

Introduction: Rere

- Complex system of tone interaction in possessives with three tonal layers:
 - i) Person marking
 - ii) Case marking
 - iii) Intonation

In this talk I will show:

- Person (1st/2nd vs. 3rd) is distinguished by grammatical tone by providing examples of alienable and inalienable possessives.
- Accusative case can be marked by grammatical tone, which alters the possessive tone.
- A third layer of tone; intonation alters grammatical tones.
 - ❖ Data comes from an ex-situ fieldwork with a native Rere speaker Titus Kubri Kajo Kunda

Background: Rere Possessive Phrases

Alienable Possession:

- *Cat, cow, etc.*
- Kinship terms such as *child* and *cousin*

CL-Noun + CL- Possessive Adjective

Inalienable Possession:

- Kinship terms: *father, mother, sibling, close friend, uncle, spouse, parent-in-law*
- Morphologically & tonally more complex

CL- Noun - Possessive Suffix + CL- Possessive Adjective

Noun class marking:

Alienable Possession:

CL-Noun + CL-Possessive Adjective

kw-úlâw *kw-í:ɲí* 'my cat'
CLkw-cat CLkw-POSS.1SG

l-élâw *l-í:ɲí* 'my cats'
CLkw-cat CLI-POSS.1SG

Inalienable Possession:

CL-Noun-Possessive Suffix + CL-Possessive Adjective

ṭ-érɲ-éɹí *ṭ-í:ɲí* 'my father'
CL_{ṭ}-father-POSS.1 CL_{ṭ}-POSS.1SG

r-érɲ-éɹí *r-í:ɲí* 'my fathers'
CLr-father-POSS.1 CLr-POSS.1SG

SG/PL noun class pairings: kw/l k/j ṭ/ɲ ṭ/r l/ɲw w/j l/j ɲ/j ṭ/j
Due to noun class marking, possessive adjectives appear in different forms.



ALIENABLE POSSESSIVES

Alienable: 'cat' in the nominative:

1. a) kw-úlâw kw-í:ŋí kw-ìjàw
CLkw-cat CLkw-POSS.1SG CLkw-be.good
'My cat is good.'

HF HH 1st/2nd

b) kw-úlâw kw-ù:ŋún kw-ìjàw
CLkw-cat CLkw-POSS.3SG CLkw-be.good
'His/Her cat is good.'

HF LH 3rd

Grammatical or lexical?

Alienable: 'cat' in the nominative:

2. a)	<i>kw-úlâw</i>	<i>kw-í:ŋí</i>	'my cat'	HF	HH	1 st /2 nd
b)	<i>kw-úlâw</i>	<i>kw-ó:ŋá</i>	'your (sg) cat'	HF	HH	1 st /2 nd
c)	<i>kw-úlâw</i>	<i>kw-ù:ŋún</i>	'his/her cat'	HF	LH	3 rd
d)	<i>kw-úlâw</i>	<i>kw-é:rí</i>	'our cat'	HF	HH	1 st /2 nd
e)	<i>kw-úlâw</i>	<i>kw-á:ló</i>	'your (pl) cat'	HF	HH	
f)	<i>kw-úlâw</i>	<i>kw-è:ŋén</i>	'their cat'	HF	LH	3 rd

Person distinction: Grammatical tone

Alienable: 'cow' in the nominative:

3. a)	η-ìdà	η-í:ηί	'my cow'	LL	HH	1 st /2 nd
b)	η-ìdà	η-ó:ηά	'your (sg) cow'	LL	HH	1 st /2 nd
c)	η-ìdà	η-ù:ηún	'his/her cow'	LL	LH	3 rd
d)	η-ìdà	η-έ:ηί	'our cow'	LL	HH	1 st /2 nd
e)	η-ìdà	η-ά:λό	'your (pl) cow'	LL	HH	1 st /2 nd
f)	η-ìdà	η-έ:ηέν	'their cow'	LL	LH	3 rd

Possessive adjective changes form based on noun class marker (and person).

Rere case marking

Nominative tone distinctions:

4. a) ηwón **H** 'saliva'

b) tíhén **HH** 'dog'

c) kwúlâw **HF** 'cat'

d) fúndàη **HL** 'lion'

e) kwàw **L** 'woman'

f) ηìqà **LL** 'cow'

g) kàyró **LH** 'chicken'

Rere case marking

NOMINATIVE

5. a) ʃúndàŋ **HL** 'lion'
b) ʧá:ɾà **HL** 'shepherd'
c) ká:ŋàl **HL** 'sheep'
d) kíɾàr **HL** 'edible root'

ACCUSATIVE

- ʃúndàŋ-á **HL-H** *Suffixation*
ʧà:ɾà **LL** *Tone change*
kà:ŋál-è **LH-L** *Suffixation + tone change*
kíɾàr **HL** *No change*

no fixed ACC grammatical tone melody (Quint 2011)
little predictability (Boychev 2013)

Rere case marking

NOMINATIVE

6. a) t̩é:mén **HH**

b) k^wórtò **HL**

c) k̀r̀k̀ón **LH**

d) k̀àđ̀h̀òr **LL**

ACCUSATIVE

t̩è:mèn-é **LL-H** 'bee'

k^wòrtò-á **LL-H** 'rich person'

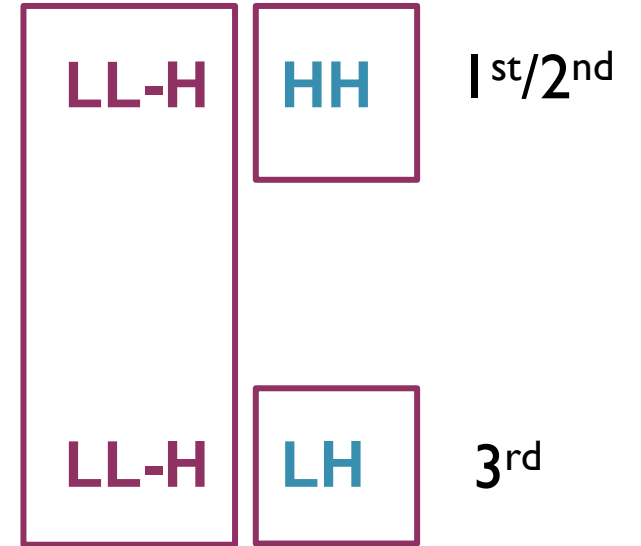
k̀r̀k̀òh-á **LL-H** 'skull'

k̀àđ̀h̀òr-á **LL-H** 'duck'

Alienable 'cat' in the accusative

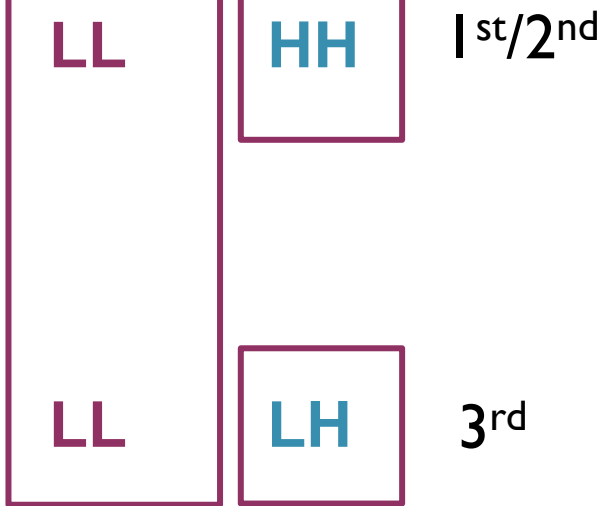
7. a) ní gw-↓t-ámrí kw-ùlàw-á kw-í:ní pèǒβèǒtèn
I CLkw-HAB-love CLkw-cat-ACC CLkw-POSS.1SG very.much
'I love my cat very much.'

b) ní gw-↓t-ámrí kw-ùlàw-á kw-ù:nún pèǒβèǒtèn
I CLkw-HAB-love CLkw-cat-ACC CLkw-POSS.3SG very.much
'I love his/her cat very much.'



Compare with nominative **HF HH** (1st/2nd) and **HF LH** (3rd)
ACC case marking changes tone of the noun, but not tone of possessive adjective.

Alienable 'cow' in the accusative

8. a) ní gw-[↓]t-ámrí η-ìdà η-í:ní pèǒβèǒt̩èn
I CLkw-HAB-love CLη-cow CLη-POSS.1SG very.much
- 'I love my cow very much.'
- b) ní gw-[↓]t-ámrí η-ìdà η-ù:ηún pèǒβèǒt̩èn
I CLkw-HAB-love CLη-cow CLη-POSS.3SG very.much
- 'I love his/her cow very much.'
- 
- LL HH 1st/2nd
- LL LH 3rd

Compare with nominative **LL HH** (1st/2nd) and **LL LH** (3rd)
No tone change for the ACC of 'cow'

Interim Summary: Alienable Possessives

- Possessive adjective expresses the 1st/2nd vs. 3rd person distinction in both NOM and ACC.
- Accusative marking is realized in different ways depending on the noun.



INALIENABLE POSSESSIVES

Inalienable ‘father’ in the nominative:

9. a) $t\text{-}\acute{e}r\eta\text{-}\acute{e}r\acute{\imath}$ $t\text{-}\acute{\imath}\eta\acute{\imath}$ $t\text{-}\acute{\imath}\grave{a}w$ **H-HH HH**
CL t -father-POSS.1 CL t -POSS.1SG CL t -be.good

‘My father is good.’

b) $t\text{-}\acute{e}r\eta\text{-}\acute{\imath}n$ $t\text{-}\grave{u}\eta\acute{u}n$ $t\text{-}\acute{\imath}\grave{a}w$ **H-H LH**
CL t -father-POSS.3 CL t -POSS.3SG CL t -be.good

‘His/her father is good.’

Inalienable 'father' in the nominative:

- | | | | | | | |
|--------|--------------|--------------|--------------------|------|------|-----------------|
| 10. a) | t̚-é:ɾɿ-é:ɾí | (t̚-í:ɾí) | 'my father' | H-HH | (HH) | |
| b) | t̚-á:ɾɿ-á:ló | (t̚-ó:ɾá) | 'your (sg) father' | H-HH | (HH) | |
| c) | t̚-é:ɾɿ-ín | (t̚-ù:ɾún) | 'his/her father' | H-H | (LH) | 3 rd |
| d) | t̚-é:ɾɿ-é:ɾí | t̚-é:ɾí | 'our father' | H-HH | HH | |
| e) | t̚-á:ɾɿ-á:ló | t̚-á:ló | 'your (pl) father' | H-HH | HH | |
| f) | t̚-é:ɾɿ-ín | t̚-è:ɾén | 'their father' | H-H | LH | 3 rd |

Examples for other inalienable possessives in the nominative:

11. a) lá:ŋ-áló kw-ó:ŋá 'your (sg) mother'
b) lé:ŋ-ín kw-ù:ŋún 'his/her mother'
c) kígr-élú kw-ó:ŋá 'your (sg) uncle/aunt'
d) kígr-én kw-ù:ŋún 'his/her uncle/aunt'
e) kùl-élú kw-ó:ŋá 'your (sg) spouse'
f) kùl-èn kw-ù:ŋún 'his/her spouse'

H-HH HH

H-H LH

H-HH HH

H-H LH

L-HH HH

L-L LH

patterns
with 'father'

different tone
pattern

Inalienable 'father' in the accusative:

12. a) η í gw- \downarrow t-ámɾí t-èrɿ-éí t-í:ɿí pèðβèðtɿn
I CLkw-HAB-love CLt-father-POSS.1 CLt-POSS.1SG very.much **L-HH HH**

“I love my father very much.”

b) η í gw- \downarrow t-ámɾí t-èrɿ-ìn t-ù:ɿún pèðβèðtɿn
I CLkw-HAB-love CLt-father-POSS.3 CLt-POSS.3SG very.much **L-L LH**

“I love his/her father very much.”

Compare with nominative **H-HH HH** (1st/2nd) and **H-H LH** (3rd)

ACC case marking is expressed by altering the tone of the root.

3rd person (but not 1st/2nd) possessive suffix is L.

Examples for other inalienable possessives in the accusative:

13. a) là:ŋ-álor kw-ó:ŋá 'your (sg) mother'
b) là:ŋ-ìn kw-ù:ŋún 'his/her mother'
c) kigr-élú kw-ó:ŋá 'your (sg) uncle/aunt'
d) kigr-èn kw-ù:ŋún 'his/her uncle/aunt'
e) kùl-élú kw-ó:ŋá 'your (sg) spouse'
f) kùl-èn kw-ù:ŋún 'his/her spouse'

L-HH HH

L-L LH

L-HH HH

L-L LH

L-HH HH

L-L LH

patterns
with 'father'

no distinction
between NOM and
ACC forms

Inalienable possessives in the nominative vs. accusative:

		NOM	ACC	
father, mother, uncle...	1 st /2 nd	H-HH HH	L-HH HH	<i>Noun root becomes L</i>
	3 rd	H-H LH	L-L LH	<i>Noun root and possessive suffix become L</i>
spouse	1 st /2 nd	NOM/ACC		
		L-HH HH		
	3 rd	L-L LH		

ACC is sensitive to person distinction.

Interim Summary: Inalienable Possessives

- As in alienable possessives, 1st/2nd vs. 3rd distinction is expressed on possessive adjectives via grammatical tone; 1st/2nd HH vs. 3rd LH.
- In the NOM, possessed nouns are marked with H in the root and H possessive suffixes.
- ACC case marking is expressed by L tone in the noun root, but 3rd person possessive suffix also becomes L.
- So, person distinction is expressed tonally in three ways:
 - tone on the root in ACC
 - tone on the possessive suffix in ACC (3rd person)
 - tone on the possessive adjective

Phrase final lowering

- Low boundary tone (L%): All utterance-final tones are L

14. a) ní gw-[↓]t-ámrí fúndàŋ-á pèǒβèǒtèn **HL-H**
I CLkw-HAB-love lion-ACC very.much
'I love a/the lion very much.'

b) ní gw-[↓]t-ámrí fúndàŋ-à **HL-L**
I CLkw-HAB-love lion-ACC
'I love a/the lion.'

Alienable 'cat' in the accusative - utterance-final

15. a) ní gw-[↓]t-ámrí
 I CLkw-HAB-love
 'I love my cat.'

L H
 ^ |
 kw-ùlàw-á
 CLkw-cat-ACC

L%
 |
 H
 ^
 kw-ì:ni
 CLkw-POSS.1SG

LL-H LL

b) ní gw-[↓]t-ámrí
 I CLkw-HAB-love
 'I love his/her cat.'

L H
 ^ |
 kw-ùlàw-á
 CLkw-cat-ACC

L%
 |
 L H
 | |
 kw-ù:ηùn
 CLkw-POSS.3SG

LL-H LL

Tonal person distinction is lost on the surface.

Inalienable 'father' in the accusative – utterance final:

16. a) ní gw-[↓]t-ámɽí t-èrɲ-éí t-ì:ɲì L-HH LL
I CLkw-HAB-love CLt-father-POSS.1 CLt-POSS.1SG
- b) ní gw-[↓]t-ámɽí t-èrɲ-èrì L-LL
I CLkw-HAB-love CLt-father-POSS.1

“I love my father.”

Compare with utterance internal accusative L-HH HH (1st/2nd)

Inalienable 'father' in the accusative – utterance final:

16. c) ní gw-[↓]t-ámɽí t-èrɲ-ìn t-ù:ɲùn L-L LL
I CLkw-HAB-love CLt-father-POSS.3 CLt-POSS.3SG

d) ní gw-[↓]t-ámɽí t-èrɲ-ìn L-L
I CLkw-HAB-love CLt-father-POSS.3

“I love his/her father.”

Compare with utterance internal accusative **L-L LH** (3rd)

Phrase final lowering

- In utterance-final positions, L% affects the final H autosegment (Chai et al., to appear) which may be singly or multiply linked.
- As a result, intonation can neutralize tone that expresses person distinctions.



LAYERS OF TONE MARKING

Alienable

Inalienable

1st / 2nd

H HL
| ^
kw-úlâw

H
^
kw-í:ɲí

H H
| ^
t̚-érɲ-érí

H
^
t̚-í:ɲí

3rd

H HL
| ^
kw-úlâw

L H
| |
kw-ù:ɲún

H H
| |
t̚-érɲ-ín

L H
| |
t̚-ù:ɲún

Layers of tone marking: Person

Alienable

Inalienable

1st / 2nd

L H H
^ | ^
kw-ùlàw-á kw-í:ŋí

tone change + suffix

L H H
| ^ ^
ṭ-èrŋ-érí ṭ-í:ŋí

tone change

3rd

L H L H
^ | | |
kw-ùlàw-á kw-ù:ŋún

tone change + suffix

L L L H
| | | |
ṭ-èrŋ-ìn ṭ-ù:ŋún

tone change

Layers of tone marking: Person + ACC case

Alienable

Inalienable

1st / 2nd

L H
^ |
kw-ùlàw-á

L%
|
H
^
kw-ì:ɲì

L H
| ^
t̩-èrɲ-érí

L%
|
H
^
t̩-ì:ɲì

3rd

L H
^ |
kw-ùlàw-á

L%
|
L H
| |
kw-ù:ɲùn

L L
| |
t̩-èrɲ-ìn

L%
|
L H
| |
t̩-ù:ɲùn

Layers of tone marking: Person + ACC case + Intonation

Inalienable (with adjective)

Inalienable (without adjective)

1st / 2nd

L H
| ^
t̚-èrŋ-érí

L%
|
H
^
t̚-ì:ŋì

L%
|
L H
| ^
t̚-èrŋ-èrì

3rd

L L
| |
t̚-èrŋ-ìn

L%
|
L H
| |
t̚-ù:ŋùn

L L
| |
t̚-èrŋ-ìn

Layers of tone marking: Person + ACC case + Intonation
(when the possessive adjective is dropped)

Conclusion

- Alienable and inalienable possessives are marked in similar ways. Inalienable possessives are morphologically and tonally more complex.
- 1st/2nd vs. 3rd person distinctions are indicated tonally:
 - Both alienable and inalienable show distinctions for tone on the possessive adjective in both NOM and ACC. Inalienable possessives also show distinctions for person on the noun stem via ACC tone marking.
- ACC assignment is sensitive to person distinction.
- L% overwrites tonal patterns of possessive phrases.



THANK YOU

éwòrṭàṅì

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