Khoekhoe participant ϕ-features:

evidence from allomorphy & possession

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How is the "person" category represented?

Today, I want to show you that Khoekhoe (Nama-Damara, Central Khoisan) "person" comprises **separate representations** in **distinct syntactic positions**.

Pronouns as D elements

It has long been noticed that person-encoding elements (i.e. **pronouns**) are in complementary distribution with D elements:

(1) a. neither of **us** professors is quitting (Postal 1966:(36f))

b. neither of the professors is quitting

(2) *[the **she** that I talked to] was nice (Abney 1987)

(3) *the **you** (Ritter 1995:(18a))

(4) *this **he** (Ritter 1995:(18b))

Pronouns as D elements

(5) Abney 1987's (304)

a. **possession**
*[my she] has always been good to me

b. **adjectives**
*[dependable them] are hard to find

c. **numerals/measure**
*[two dozen us] signed the petition

What if diversity across the "person" values...

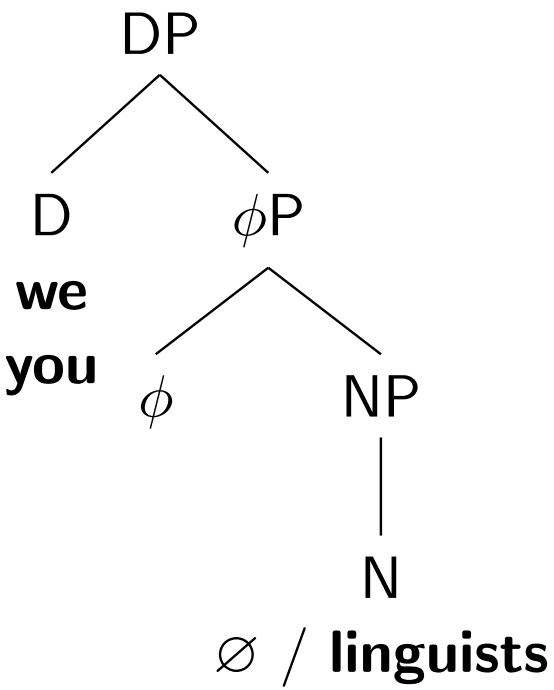
(6) Only 1st and 2nd person English pronouns can function as determiners (Déchaine & Wiltschko 2002:(32), Postal 1966)

a.	*we* linguists	*us* linguists
b.	*you* linguists	*you* linguists
c.	**they* linguists	**them* linguists

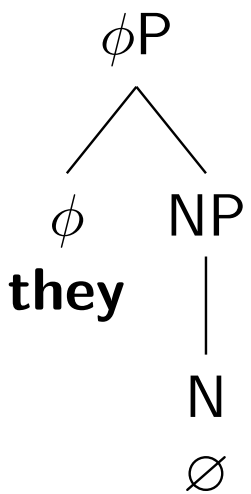
...is due to syntactic diversity?

Déchaine & Wiltschko 2002 proposed that pronouns come in three maximal syntactic sizes

(6) a. Pro-DP
argument only



b. Pro-phiP
argument or predicate



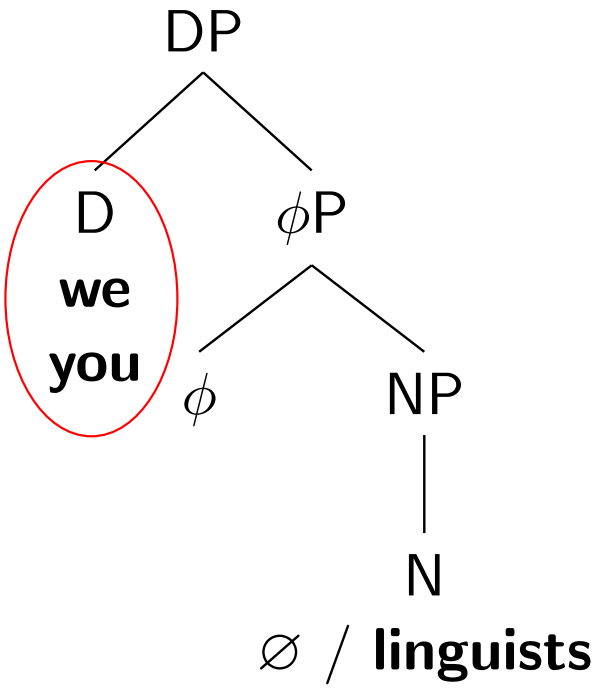
c. Pro-NP
predicate only

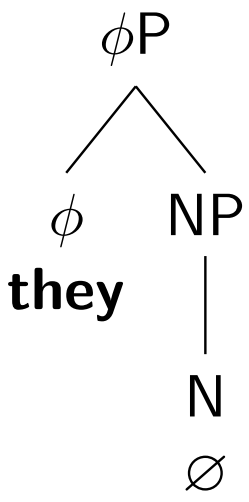
A compatible proposal: place "person" features on D

(6) a. Pro-DP — argument only

b. Pro-phiP — argument or predicate

c. Pro-NP — predicate only





"D is specified for person..." (Ritter 1995:405)

"person features are generated on the D head..." (Danon 2011:303)

Two challenges

- Articulating the syntactic configuration of phi-features within the extended nominal projection (Ritter 1991, 1993, Alexiadou 2004, Kramer 2014, 2015, i.a.)
-

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- Articulating the syntactic configuration of phi-features within the extended nominal projection (Ritter 1991, 1993, Alexiadou 2004, Kramer 2014, 2015, i.a.)
- Khoekhoe (pro)nominals go beyond monomorphemic D syntax:

(7)
a. **possession**
*[my she]

b. **adjectives**
*[dependable them]

c. **numerals**
*[two dozen us]

(8)
a. tíí̋ sáá̋ -ŋ|ʰö̀ -ʦ
my [2/ADR] -friend -2.M.SG
my you-friend

b. ‖ˀí̋ -ŋǂíí̋sá -kú
3 -proud -3.M.PL
proud they

c. síí̋ -hàkà -ké
[1EXCL/~~ADR~~] -four -1.M.PL
four us

How is participant information in Khoekhoe represented?

- Khoekhoe's (pronominal = argument nominal) phi-features are not exponed regularly: number values trigger gender allomorphs, **speaker value** triggers number allomorphs:
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- Overt "person" morphemes in pronouns only track **addressee value**
  - ⇒ Separate ADDRESSEE feature
- Only 1st singular and 2nd singular possessive pronouns appear as their "person" morphemes alone
  - ⇒ Speaker and Addressee may come specified with a SINGULAR feature value, and so act as a phi-complete goal

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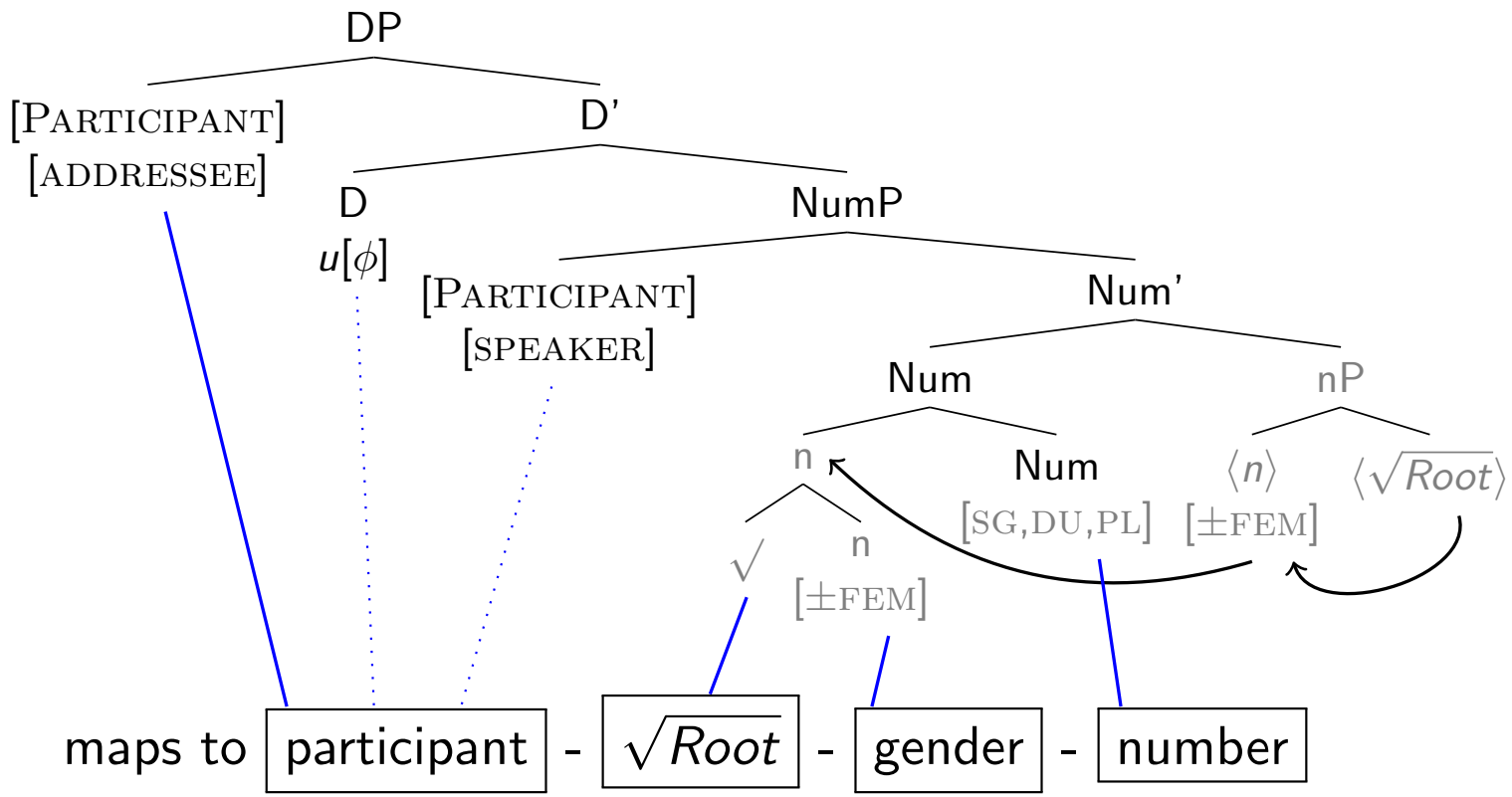
- Though pronouns in all persons may be possessees, only 1st singular possessees can appear with their "person" morpheme
  - ⇒ SPEAKER in Spec-NumP
  - ⇒ 3rd person in D
  - ⇒ ADDRESSEE in Spec-DP

Proposed internal structure for Khoekhoe (pro)nominals

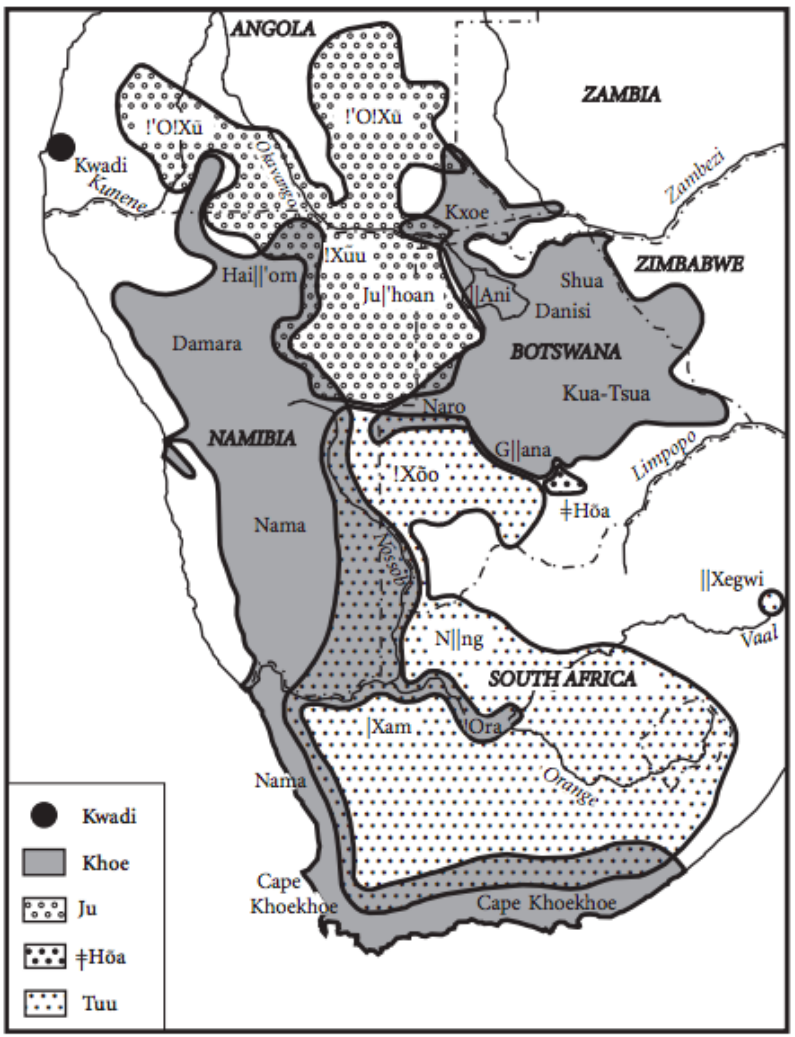
Khoekhoe (Nama-Damara, Central Khoisan) "person" comprises separate representations in distinct syntactic positions.



Roadmap

1. Separate SPKR & ADDR features
   - Speaker-conditioned allomorphy
   - Addressee exponence
2. 1SG and 2SG
   - Possessor forms
3. Participant in the nominal periphery
   - Adnominals: adjectives, numerals
   - Adnominals: demonstratives
4. ADDR: Spec-DP, SPKR: Spec-NumP
   - Possessees across the persons
5. Conclusion

Khoekhoe is spoken in Namibia, Botswana, & South Africa



Originally included with two other families as "Khoisan."
Some notation:

- Clicks:

|	dental
!	alveolar
ǂ	palatal
‖	lateral

- Lexical tone:

SL	super-low	v̏
L	low	v̀
H	high	v́
SH	super-high	v̋

Phi-featural distinctions

- gender
  - masculine
  - feminine
  - common*
- number
  - singular
  - dual
  - plural
- person (incl. clusivity)
  - 1st exclusive
  - 1st inclusive
  - 2nd
  - 3rd

- full pronouns
- lexical nominals
- possessive pronouns
- subject clitics
- object clitics

Full pronouns

# ↓	π ↓	*Gender* → [PARTIC] ↓	**Masculine**	**Feminine**	**Common**
Sg	First	SPKR ~~ADDR~~	tíí-tá	tíí-tá	N/A
	Second	~~SPKR~~ ADDR	sáá-ts	sáá-s	N/A
	Third	~~SPKR~~ ~~ADDR~~	‖ʔĩ-p / -í	‖ʔĩ-s	‖ʔĩ-ʔì
Du	First	SPKR ~~ADDR~~ E	síí-kʰ-m̀	síí-m̀	síí-m̀
		SPKR ADDR I	sáá-kʰ-m̀	sáá-m̀	sáá-m̀
	Second	~~SPKR~~ ADDR	sáá-kʰ-ò	sáá-r-ò	sáá-r-ò
	Third	~~SPKR~~ ~~ADDR~~	‖ʔĩ-kʰ-à	‖ʔĩ-r-à	‖ʔĩ-r-à
Pl	First	SPKR ~~ADDR~~ E	síí-k-é	síí-s-é	síí-t-à
		SPKR ADDR I	sáá-k-é	sáá-s-é	sáá-t-à
	Second	~~SPKR~~ ADDR	sáá-k-ó	sáá-s-ó	sáá-t-ù/t-ó
	Third	~~SPKR~~ ~~ADDR~~	‖ʔĩ-k-ú	‖ʔĩ-tì	‖ʔĩ-ǹ

Khoekhoe has SOV word order

(9) khȍè-p ké rá !ʰóe
person-M.SG DECL PRS run
The (male) person is running

(10) sáá̋-kʰ-ò ké ‖ʔí̋-p kò mù
2-M-DU DECL 3-M.SG PST see
You (two guys) saw him

Argument nominals show gender distinctions

(9) khʊ̀è -p ké rá !^{h}óe
person -M.SG DECL PRS run
The (male) person is running

(11) khʊ̀è -s ké rá !^{h}óe
person -F.SG DECL PRS run
The (female) person is running

Argument nominals show number distinctions

(9) khʊ̈ò -p ké rá !^{h}óe
person -M.SG DECL PRS run
The (male) person is running

(12) khʊ̈ò -k^h -à ké rá !^{h}óe
person -M -DU DECL PRS run
The (two male) people are running

(13) khʊ̈ò -k -ú ké rá !^{h}óe
person -M -PL DECL PRS run
The (many male) people are running

Lexical nominals and 3rd person pronouns

(9) khʊ̀è **-p** ké rá !^{h}óe
person -M.SG DECL PRS run
The (m) person is running

(11) khʊ̀è **-s** ké rá !^{h}óe
person -F.SG DECL PRS run
The (f) person is running

(13) khʊ̀è **-k-ú** ké rá !^{h}óe
person -M-PL DECL PRS run
The (m) people are running

(14) ǁʔĩ́ **-p** ké rá !^{h}óe
3 -M.SG DECL PRS run
He is running

(15) ǁʔĩ́ **-s** ké rá !^{h}óe
3 -F.SG DECL PRS run
She is running

(16) ǁʔĩ́ **-k-ú** ké rá !^{h}óe
3 -M-PL DECL PRS run
They (m) are running

Three "different" constructions with the same underlying structure

(17) ‖**ʔĩ́** -∅ **-p** ké ʔá ŋǂíísá
3 -$\sqrt{pron}$ -M.SG DECL COP proud
He is proud.

(18) ‖**ʔĩ́ -nàmă -p** ké ʔá ŋǂíísá
3 -$\sqrt{Nama}$ -M.SG DECL COP proud
He, Nama, is proud.

(19) ∅ **-nàmă -p** ké ʔá ŋǂíísá
3 -$\sqrt{Nama}$ -M.SG DECL COP proud
The Nama is proud.

Same underlying structure, same possible syntactic positions.

Three "different" constructions with the same underlying structure

(20) **tíí-∅-tá́** ké ʔá ŋǂíísá
1-$\sqrt{pron}$-SG DECL COP proud
I am proud

(21) **tíí-nàmá́-tá́** ké ʔá ŋǂíísá
1-$\sqrt{Nama}$-SG DECL COP proud
I, Nama, am proud

(22) **∅-nàmá́-tá́** ké ʔá ŋǂíísá
1-$\sqrt{Nama}$-SG DECL COP proud
I, Nama, am proud

Same underlying structure, same possible syntactic positions.

Table of Contents

Table of Contents

Gender is exponed separately

Ex	Gender	Number	Person [participant]	Form
(1)	masc	dual	2nd [−spkr, +addr]	sáā - k^h - ò
(2)	**fem**	dual	2nd [−spkr, +addr]	sáā - **r** - ò

. □ - GENDER - □

Gender and number are exponed separately

Ex	Gender	Number	Person [participant]	Form
(1)	masc	dual	2nd [−spkr, +addr]	sáā - k^h - ò
(2)	**fem**	dual	2nd [−spkr, +addr]	sáā - **r** - ò
(3)	masc	**plural**	2nd [−spkr, +addr]	sáā - *k* - **ó**

. □ - GENDER - NUMBER

Gender and number are exponed separately

Ex	Gender	Number	Person [participant]	Form
(1)	masc	dual	2nd [−spkr, +addr]	sáā - k^h - ò
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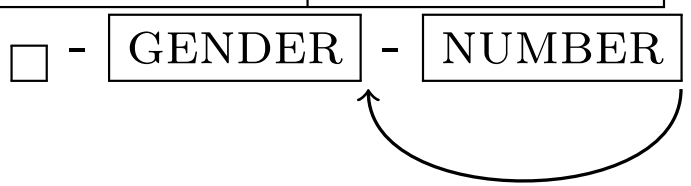
(3)	masc	**plural**	2nd [−spkr, +addr]	sáā - *k* - **ó**



SPEAKER feature conditions number exponence

Ex	Gender	Number	Person [participant]	Form
(1)	masc	dual	2nd [−spkr, +addr]	sáā - k^h - ò
(2)	**fem**	dual	2nd [−spkr, +addr]	sáā - **r** - ò
(3)	masc	**plural**	2nd [−spkr, +addr]	sáā - *k* - **ó**
(4)	masc	dual	1st incl [**+spkr**, +addr]	sáā - k^h - *m̀*

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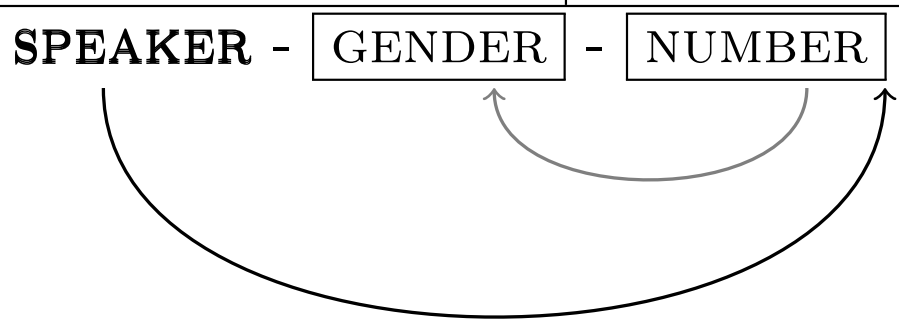

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The nature of spell-out & the directionality of allomorphy

- Root-outward insertion (cyclicity)
- Insertion "uses up" those features (rewriting)
- Inward phonology can condition allomorphy
- **Outward features can condition allomorphy**

(Bobaljik 2000)

PART ≫ NUM ≫ GENDER

Ex	Gender	Number	Person [participant]	Form
(1)	masc	dual	2nd [−spkr, +addr]	sáā - k^h - ò
(2)	**fem**	dual	2nd [−spkr, +addr]	sáā - **r** - ò
(3)	masc	**plural**	2nd [−spkr, +addr]	sáā - *k* - **ó**
(4)	masc	dual	1st incl [**+spkr**, +addr]	sáā - k^h - *m̀*

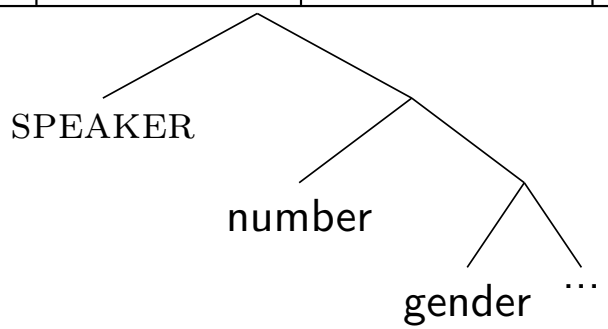

Fig 2. Relative ordering of phi

VS. PART? - GENDER - NUMBER

Table of Contents

SPEAKER feature conditions number exponence

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(3)	masc	**plural**	2nd [−spkr, +addr]	sáā - *k* - **ó**
(4)	masc	dual	1st incl [**+spkr**, +addr]	sáā - k^h - *m̀*

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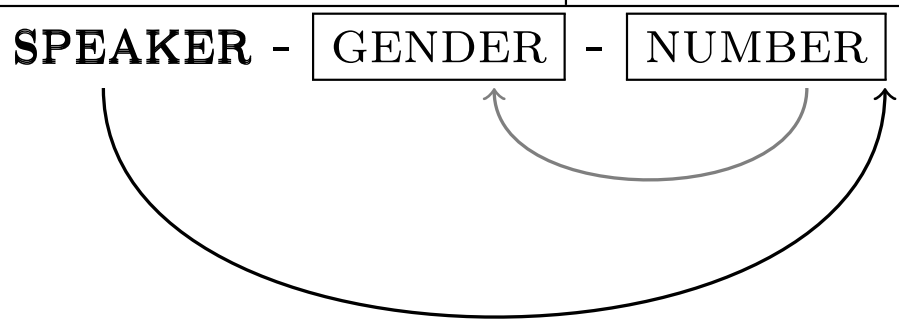

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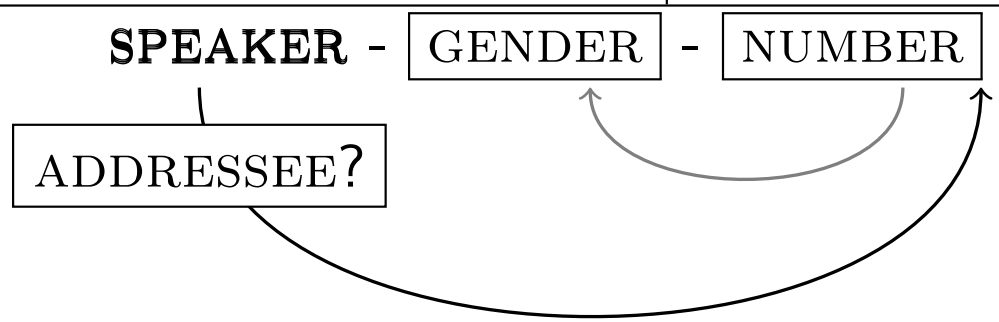
Overt participant exponence depends solely on ADDRESSEE

Ex	Gender	Number	Person [participant]	Form
(1)	masc	dual	2nd [−spkr, +addr]	sáā - k^h - ò
(2)	**fem**	dual	2nd [−spkr, +addr]	sáā - **r** - ò
(3)	masc	**plural**	2nd [−spkr, +addr]	sáā - *k* - **ó**
(4)	masc	dual	1st incl [**+spkr**, +addr]	sáā - k^h - *m̀*
(5)	masc	dual	1st excl [+spkr, **−addr**]	**síí** - k^h - *m̀*



Full pronouns: "person" morphemes highlighted

# ↓	π ↓	*Gender* → [PARTIC] ↓	**Masculine**	**Feminine**	**Common**
Sg	First	SPKR ~~ADDR~~	tíí-tá	tíí-tá	N/A
	Second	~~SPKR~~ ADDR	sáá-ts	sáá-s	N/A
	Third	~~SPKR~~ ~~ADDR~~	‖ʔí-p / -í	‖ʔí-s	‖ʔí-ʔì
Du	First	SPKR ~~ADDR~~ E	síí-kʰ-m̀	síí-m̀	síí-m̀
		SPKR ADDR I	sáá-kʰ-m̀	sáá-m̀	sáá-m̀
	Second	~~SPKR~~ ADDR	sáá-kʰ-ò	sáá-r-ò	sáá-r-ò
	Third	~~SPKR~~ ~~ADDR~~	‖ʔí-kʰ-à	‖ʔí-r-à	‖ʔí-r-à
Pl	First	SPKR ~~ADDR~~ E	síí-k-é	síí-s-é	síí-t-à
		SPKR ADDR I	sáá-k-é	sáá-s-é	sáá-t-à
	Second	~~SPKR~~ ADDR	sáá-k-ó	sáá-s-ó	sáá-t-ù/t-ó
	Third	~~SPKR~~ ~~ADDR~~	‖ʔí-k-ú	‖ʔí-tì	‖ʔí-ǹ

Table of Contents

Table of Contents

Possessors occur before an optional possessive marker in prenominal position

(23) a. mȕtání-s tȉȉ ŋ|ʰȍ-p
Mutani-F.SG POSS friend-M.SG

b. mȕtání-s ŋ|ʰȍ-p
Mutani-F.SG friend-M.SG
Mutani's (male) friend

Nearly all possessive pronouns are identical to their full pronoun forms (3rd person singular)

(24) 3rd person, feminine singular possessor

a. mu̍tání-s (ti̍i̍) ŋ|^{h}o̍-p
Mutani-F.SG (POSS) friend-M.SG
Mutani's (male) friend

b. ||^{ʔ}ǐ-s (ti̍i̍) ŋ|^{h}o̍-p
3-F.SG (POSS) friend-M.SG
her (male) friend

Nearly all possessive pronouns are identical to their full pronoun forms and behave alike (1st plural, 2nd dual)

(25) 1st person exclusive, feminine plural possessor

sɪ́ɪ̋-s-é		(tɪ̀ɪ̋)	ŋ|^{h}ʊ̈-p
[1EXCL/~~ADR~~]-F-PL		(POSS)	friend-M.SG

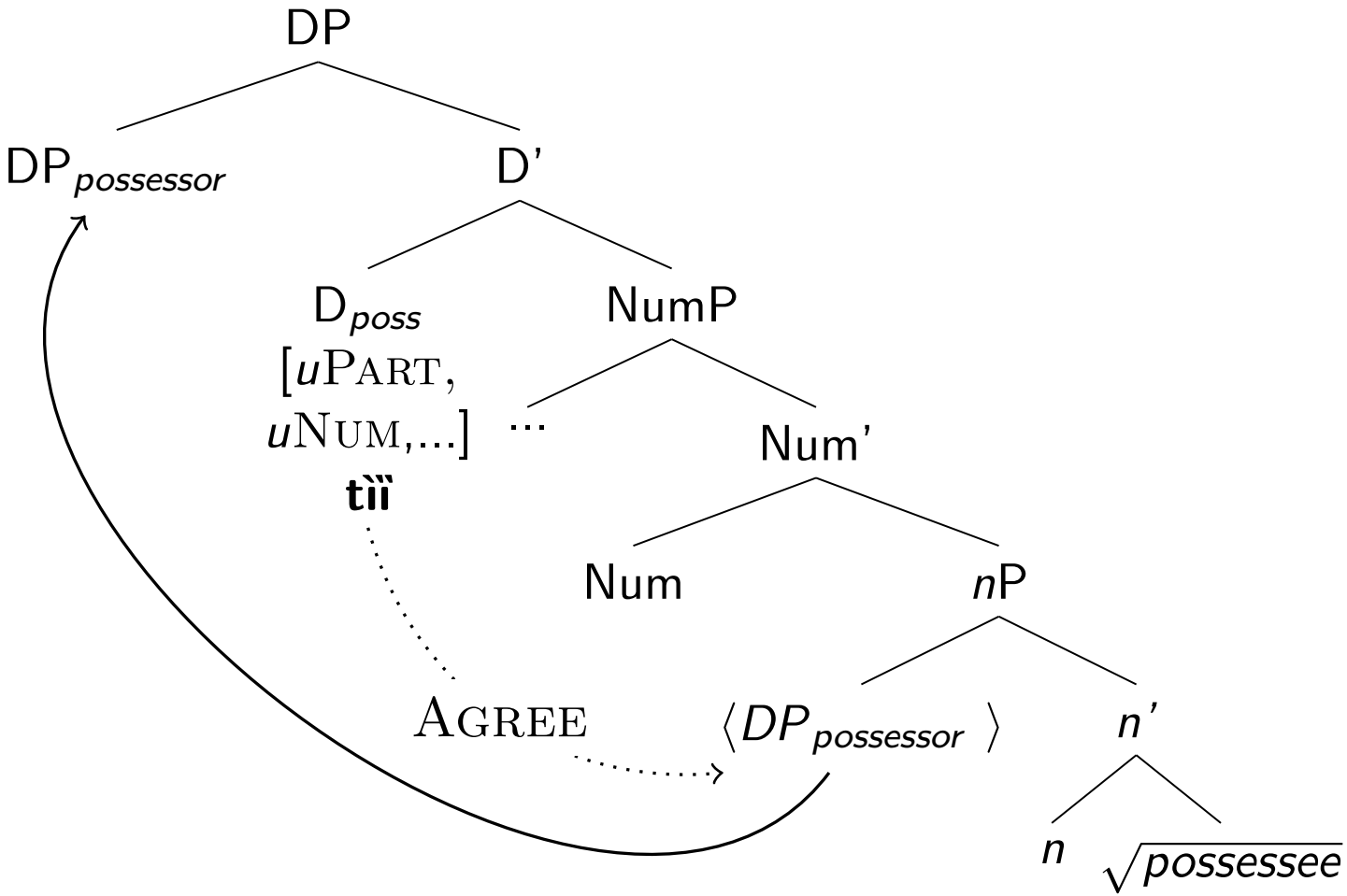
our (us ladies') (male) friend

(26) 2nd person, feminine dual possessor

sáa̋-ɾ-ò		(tɪ̀ɪ̋)	ŋ|^{h}ʊ̈-p
[2/ADR]-F-DU		(POSS)	friend-M.SG

your (you two ladies') (male) friend

Possessive D probes for phi-valued goal, moving it to Spec-DP



But the full 1st person singular pronoun **cannot** appear as a possessive pronoun

(27) ***tíı̋-tă̋** ŋ|ʰö̏-p
1-1.SG friend-M.SG

(28) ***tíı̋-tă̋** tìı̏ ŋ|ʰö̏-p
1-1.SG D_{poss} friend-M.SG
my friend

Only the "person" part of the 1st singular pronoun may appear

(29) *tı́ı̋-tá̋ ŋ|^{h}ö̀-p
1-1.SG friend-M.SG

(30) *tı́ı̋-tá̋ tı̀ı̏ ŋ|^{h}ö̀-p
1-1.SG D_{poss} friend-M.SG
1.SG D_{poss} friend-M.SG

(31) **tı́ı̋** ŋ|^{h}ö̀-p
1.SG friend-M.SG
my friend

(32) **tı́ı̋** tı̀ı̏ ||oɾe-ǹ
1.SG D_{poss} sin-MIX.PL
my sins

Could **tíí** spell-out the closest phi-complete goal?

(33) *tíí-tǎ ŋ|ʰò̰-p
1-1.SG friend-M.SG

(34) *tíí-tǎ tìḭ̀
1-1.SG D_{poss}
ŋ|ʰò̰-p
friend-M.SG
1.SG D_{poss} friend-M.SG

(35) **tíí** ŋ|ʰò̰-p
1.SG friend-M.SG
my friend

(36) **tíí** tìḭ̀ ‖ore-ǹ
1.SG D_{poss} sin-MIX.PL
my sins

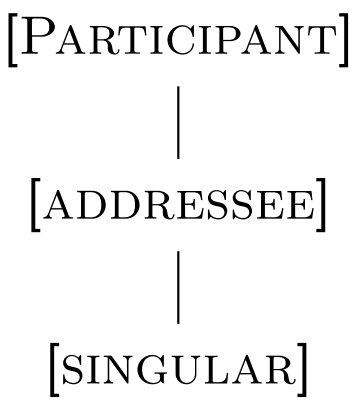
[PARTICIPANT]
|
[SPEAKER]
|
[SINGULAR]
tíí

The 2nd singular pronoun's ADDRESSEE-exponing "person" morpheme may appear as a possessive pronoun

(37) ʔsáa̋-ts ŋ|^{h}ö̋-p
[2/ADDR]-M.SG friend-M.SG

(38) sáa̋-ts tìì
[2/ADDR]-M.SG D_{poss}
ŋ|^{h}ö̋-p
friend-M.SG

(39) **sáa̋** ŋ|^{h}ö̋-p
[2/ADDR.SG] friend-M.SG
your (sg) friend
*our (incl, du/pl) friend
*y'all's (du/pl) friend

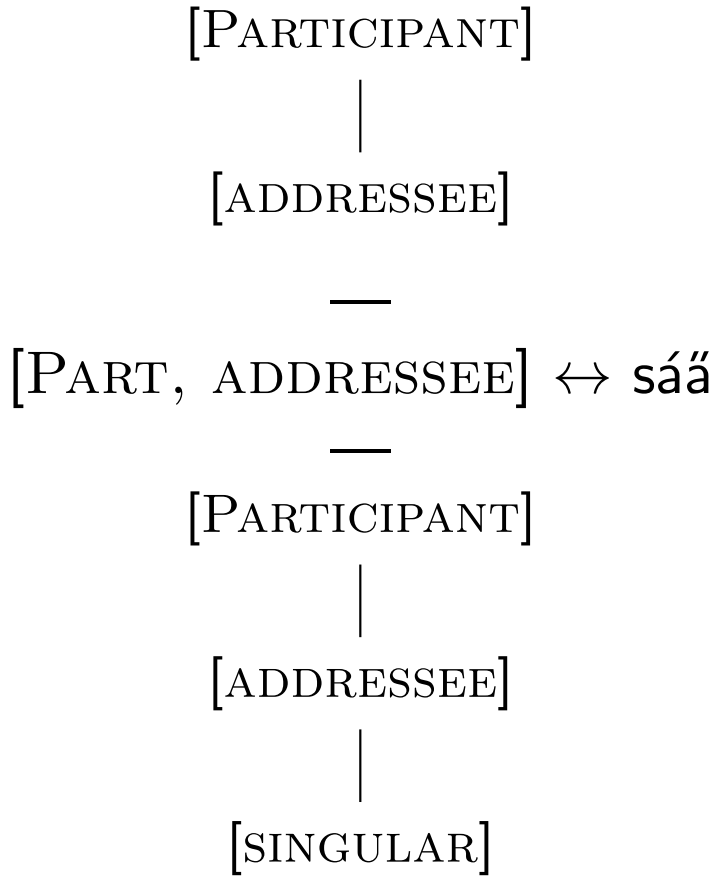


But the **full** 2nd singular pronoun may also appear as a possessive pronoun

(40) sáa̋-k-é (tìi̋)
[2/ADDR]-M-PL D_{poss}
ŋ|^{h}ö-p
friend-M.SG
our (us guys') friend

(41) sáa̋-ts tìi̋
[2/ADDR]-M.SG D_{poss}
ŋ|^{h}ö-p
friend-M.SG

(42) **sáa̋** ŋ|^{h}ö-p
[2/ADDR.SG] friend-M.SG
your (sg) friend
*our (incl, du/pl) friend
*y'all's (du/pl) friend



Interim summary

- Both SPEAKER and ADDRESSEE features are needed (for allomorphy conditioning and for exponing)
- The 1st and 2nd singular forms appear to (require / be able to) bundle a SINGULAR feature with their PARTICIPANT features
- **But do speaker and addressee occupy the same syntactic node?**

Table of Contents

Table of Contents

Introducing adnominals

Recall that Root-containing pronouns as in (b) are happy in argument position:

(43) a. sáā́ -∅ -tù/tó
[2/ADDR] -$\sqrt{pron}$ -MIX.PL
You (all) are proud.

b. sáā́-nàmā́-tù/tó
[2/ADDR]-$\sqrt{Nama}$-MIX.PL
You Namas are proud.

c. ∅-nàmā́-tù/tó
[2/ADDR]-$\sqrt{Nama}$-MIX.PL
You Namas are proud.

(44) sáā́ -nàmā́ -t-ó ké kā́ísè rá !^{h}úa
[2/ADDR] -$\sqrt{Nama}$ -MIX-PL DECL too.much PRS speak
You Namas talk a lot.

Adnominals: Adjectives follow the “person” morpheme

We can modify those arguments with **adjectives**:

(45) sáá̋ **-ǂʰű̋píχä̀** -nàmá̋ -t-ó ké ká̋ísè ɾá !ʰúa
[2/ADDR] **-loud** -$\sqrt{Nama}$ -MIX-PL DECL too.much PRS speak
You loud Namas talk a lot.

(46) ǁˀĩ́ **-kʰä̀-ʔái** -nàmá̋ -k-ú ké ʔá ǂá̋ń
3 **-smart** -$\sqrt{Nama}$ -M-PL DECL COP know
They smart Namas know.

(47) tíí̋ **ŋǂíí̋sá** -nàmá̋ -tá̋ ké ʔá ǂá̋ń
1.SG **-proud** -$\sqrt{Nama}$ -SG DECL COP know
I, proud Nama, know.

...**and “person” stays linearly first**

Adnominals: Numerals follow the "person" morpheme

We can modify those arguments with **numerals** and **adjectives**:

(48) sáa̋ -**hàkà** -ǂʰűpíχä -nàmá̋ -t-ó ké
[2/ADDR] -**four** -**loud** -√*Nama* -MIX-PL DECL
ká̋ísè ɾá !ʰúa
too.much PRS speak
You four loud Namas talk a lot.

(49) ǁˀí̋ -**ŋ!önà** -k-ú ké ʔá ǂá̋ń
3 -**three** -M-PL DECL COP know
They three know.

...**and "person" stays linearly first**

Table of Contents

Khoekhoe demonstratives

(50) ŋ‖ȁ / nȅ -nàmá̋-p ké ɾá !^{h}óe
that / this -$\sqrt{\textit{Nama}}$-M.SG DECL PRS run
That / this Nama is running

(51) ‖ˀí̋ -nàmá̋-p ké ɾá !^{h}óe
3 -$\sqrt{\textit{Nama}}$-M.SG DECL PRS run
He Nama is running

Only the "3rd person" morpheme ǁʔı̃́ cannot co-occur with demonstratives

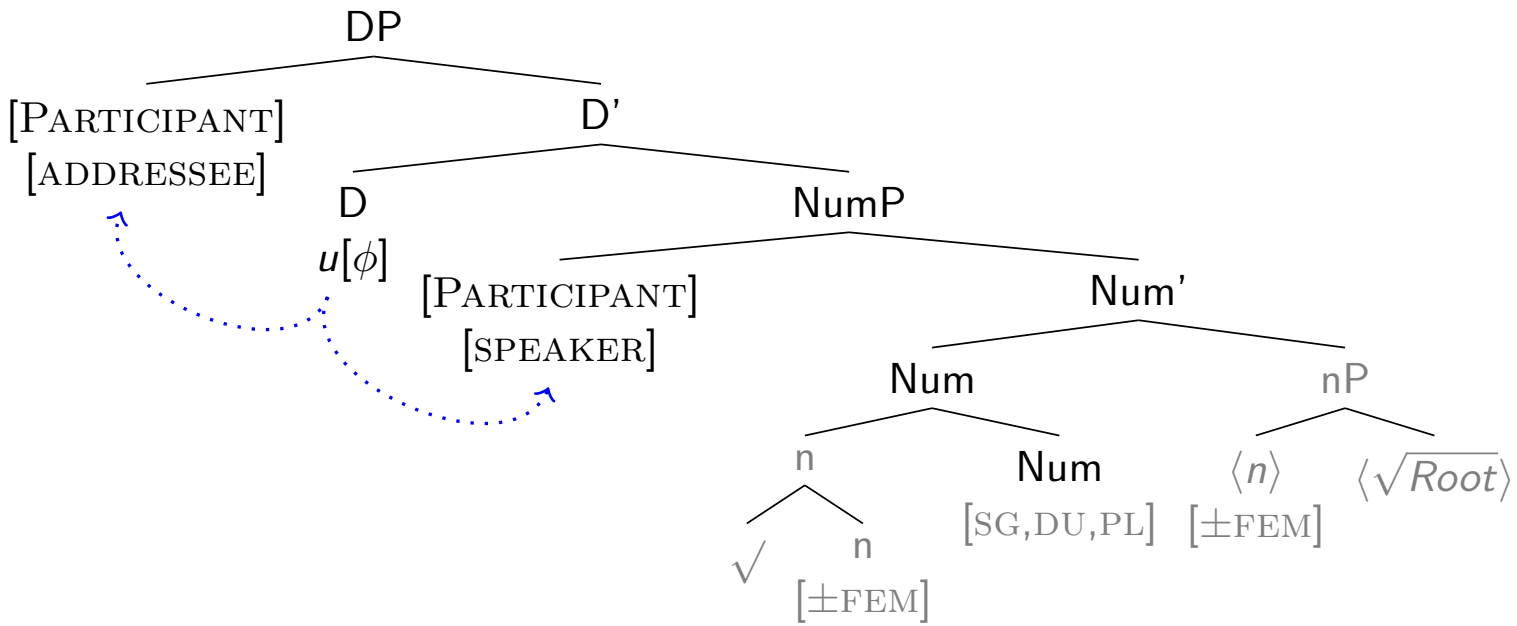
(52) ŋǁàˀ / nɛ̀ -nàmā́-p ké ɾá !^{h}óe
that / this -√*Nama*-M.SG DECL PRS run
That / this Nama is running

(53) ǁʔı̃́ -nàmā́-p ké ɾá !^{h}óe
3 -√*Nama*-M.SG DECL PRS run
He Nama is running

(54) *ǁʔı̃́ -ŋǁàˀ -nàmā́-p ké ɾá !^{h}óe
3 that -√*Nama*-M.SG DECL PRS run
He that Nama is running

(55) síˀ̃ , -nɛ̀ -nàmā́-k^h-m̀ ké ʔá ǂā́ǹ
3 , that -√*Nama*-M-DU DECL COP know
We these Namas know (not that other group of Namas)

Co-occurence restriction between ‖ʔĩ́ and demonstratives suggests it is the spell-out of PARTICIPANT-less D



D [−PARTICIPANT] ↔ ‖ʔĩ́

D ↔ ∅

Table of Contents

Table of Contents

If possessive tìĩ is in D, overt ‖ʔı̃́ on possessees should be impossible...

(56) mütání-s (tìĩ) ʔàɾí-p
Mutani-F.SG (POSS) dog-M.SG
Mutani's (male) dog

(57) ‖ʔı̃́-ʔàɾí-p
3-dog-M.SG
he (male) dog

If possessive tìı̈ is in D, overt ‖ʔı̃́ on possessees should be impossible...**and it is**

(58) mù̈tání-s (tìı̈) ʔàɾí-p
Mutani-F.SG (POSS) dog-M.SG
Mutani's (male) dog

(59) ‖ʔı̃́-ʔàɾí-p
3-dog-M.SG
he (male) dog

(60) *mù̈tání-s (tìı̈) ‖ʔı̃́-ʔàɾí-p
Mutani-F.SG (POSS) 3-dog-M.SG
Mutani's, he the dog

(61) *tíı̈́ ‖ʔı̃́-ʔàɾí-p
my 3-dog-M.SG
my he the dog

More evidence: 1st and 2nd person participants can be possessed in Khoekhoe, too

(62) 3rd person possessee

mùtání-s (tìì) ŋ|^{h}ö̀-k^{h}à
Mutani-F.SG D_{poss} friend-M-DU(3)

Mutani's (two male) friends

(63) 1st person possessee

mùtání-s (tìì) ŋ|^{h}ö̀-k^{h}m̀
Mutani-F.SG D_{poss} friend-M.DU(1)

we, Mutani's (two male) friends

(64) 2nd person possessee

mùtání-s (tìì) ŋ|^{h}ö̀-k^{h}ò
Mutani-F.SG D_{poss} friend-M.DU(2)

you, Mutani's (two male) friends

A 1st singular possessee **can** be fully exponed

a. ✓ ‖ˀí̋-p [ŋ|ʰö̏ -tá̋]...
his [friend -1.SG]...

b. ✓ ‖ˀí̋-p [tíí̋ -ŋ|ʰö̏ -tá̋]...
his [1.SG -friend -1.SG]...

c. ✓ ‖ˀí̋-p tìì̏ [ŋ|ʰö̏ -tá̋]...
his D_{poss} [friend -1.SG]...

d. * ‖ˀí̋-p tìì̏ [tíí̋ -ŋ|ʰö̏ -tá̋]...
his D_{poss} [1.SG -friend -1.SG]...
I, his friend, ...

...ǂáǹ =pi -tá̋ ʔá
...know =M.SG.OBJ -1.SG.SUBJ COP
...know him

Whereas 1.SG tı̋ı̋ can coexist with D_{poss} and a possessor in its filled specifier, no other "person" morpheme can: 1EXCL

a.	✓	‖ʔı̋-p		[		ŋ|ʰȍ -kʰ-m̀	]...
		his		[		friend -M-DU	]...
b.	*	‖ʔı̋-p		[	sı̋ı̋	ŋ|ʰȍ -kʰ-m̀	]...
		his		[	[1,~~ADDR~~]	friend -M-DU	]...
c.	✓	‖ʔı̋-p	tı̏ı̏	[		ŋ|ʰȍ -kʰ-m̀	]...
		his	D_{poss}	[		friend -M-DU	]...
d.	*	‖ʔı̋-p	tı̏ı̏	[	sı̋ı̋	ŋ|ʰȍ -kʰ-m̀	]...
		his	D_{poss}	[	[1,~~ADDR~~]	friend -M-DU	]...

We, his friends, ...

...ǂáǹ	=pi	--kʰ-m̀	ʔá
...know	=M.SG.OBJ	1.SG.SUBJ	COP

...know him

Whereas 1.SG tı̋ı̋ can coexist with D_{poss} and a possessor in its filled specifier, no other "person" morpheme can: 1INCL

a. ✓

‖ˀı̋́-p	[		ŋ|ʰȍ -kʰ-m̀	]...
his	[		friend -M-DU	]...

b. *

‖ˀı̋́-p	[	sáá̋	ŋ|ʰȍ -kʰ-m̀	]...
his	[	[1I,ADDR]	friend -M-DU	]...

c. ✓

‖ˀı̋́-p	tı̏ı̏	[		ŋ|ʰȍ -kʰ-m̀	]...
his	D_{poss}	[		friend -M-DU	]...

d. *

‖ˀı̋́-p	tı̏ı̏	[	sáá̋	ŋ|ʰȍ -kʰ-m̀	]...
his	D_{poss}	[	[11,ADDR]	friend -M-DU	]...

We, his friends, ...

...ǂáǹ	=pi	--kʰ-m̀	ʔá
...know	=M.SG.OBJ	1.SG.SUBJ	COP

...know him

Possession structures, which fill D and its specifier, are incompatible with D[−PART] and ADDRESSEE in Spec-DP

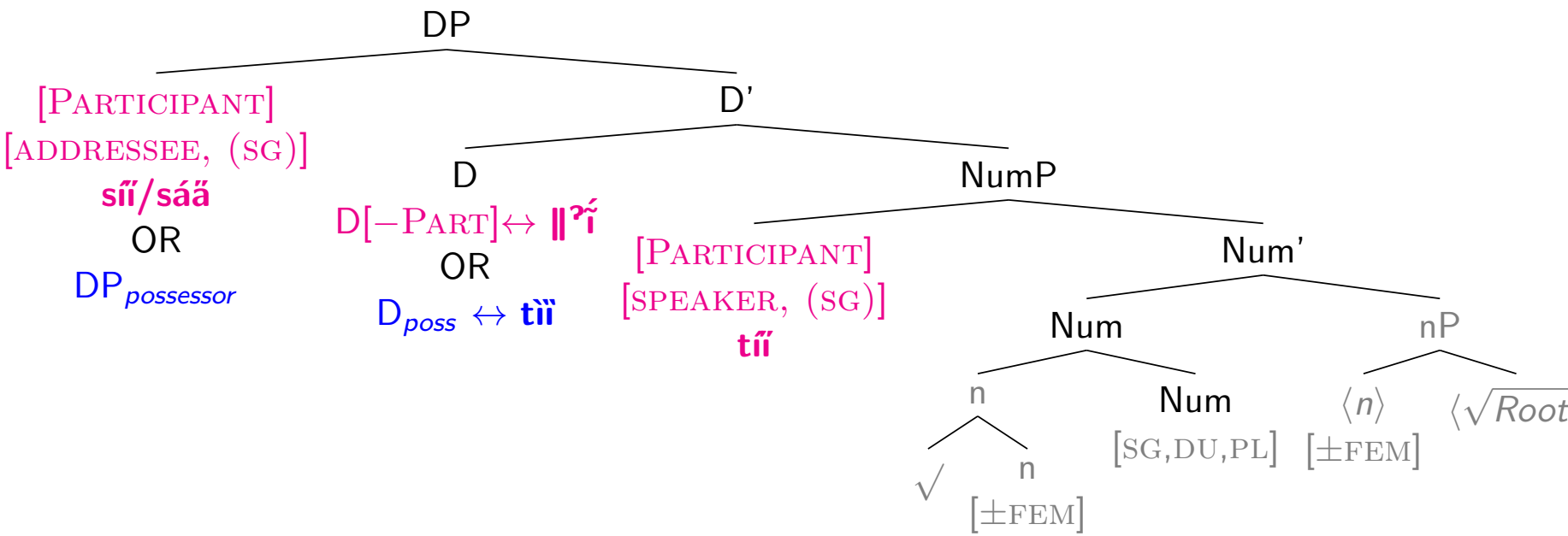


Table of Contents

Separate ADDRESSEE and SPEAKER features have:

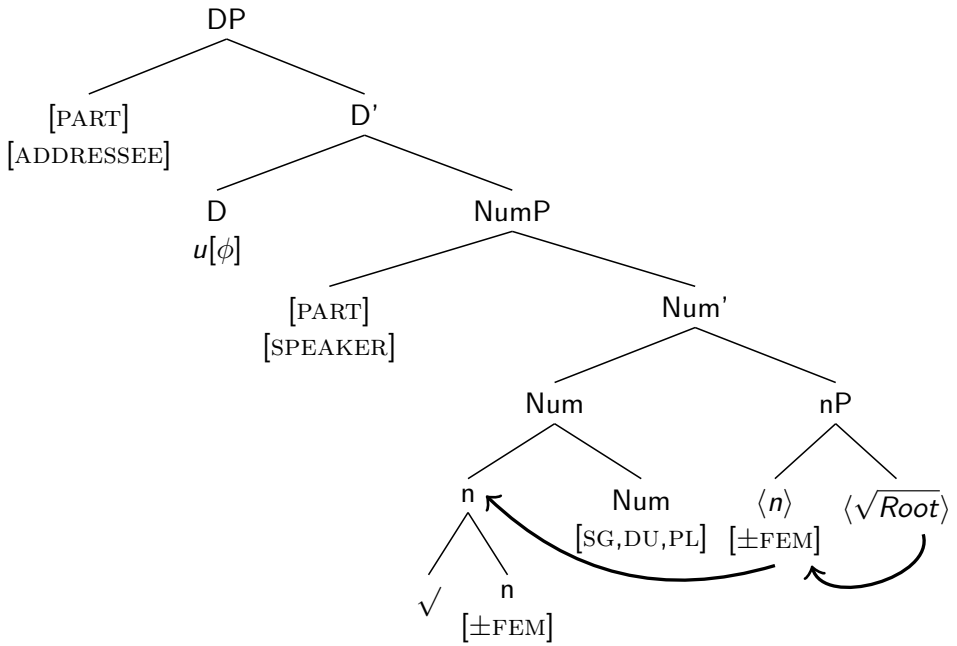
- Allowed us to capture contexts for number allomorphy - thanks to PARTICIPANT features in the representation
- Given clear spell-out targets for overt "person" morphemes síí and sáá

Placing ADDRESSEE in Spec-DP and SPEAKER in Spec-NumP has:

- Satisfied locality conditions for both number allomorphy conditioning, and 3rd person exponence
- Made both PARTICIPANT-bearing bundles accessible to a "3rd person" hosted in D, a story compatible with its distribution with demonstratives and possessors
- Explained their differential ability to be overtly exponed in possessive structures

Wrapping up

- Lexical Roots, adnominals, possessives possible in all pronominals - due to articulated DP-internal structure...
- ...revealed by locality of allomorphy conditioning, and ordering / co-occurence relations between DP-internal elements
- Participant features spread through Spec-NumP & Spec-DP; "person" exponed in D too



Thank you!

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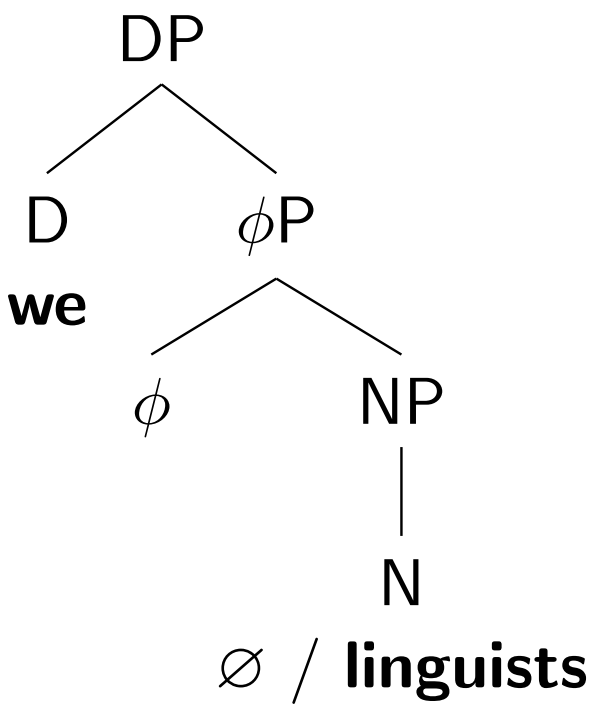
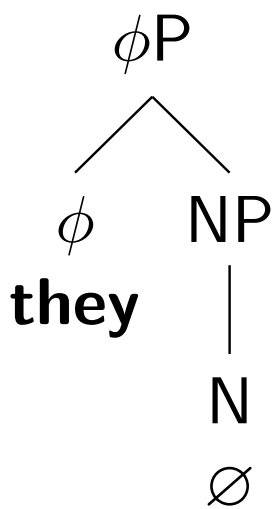
Dechaine & Wiltschko 2002 proposed that pronouns come in three maximal syntactic sizes

(1) a. Pro-DP
argument only
. R-expression

b. Pro-phiP
argument or predicate
. variable

c. Pro-NP
predicate only
. constant





Déchaine & Wiltschko 2002: the pronominal inventory of English: binding

	pro-DPs R-expressions	pro-phiPs variables	pro-NPs constants
Bound variable	*I$_i$ know that John saw *me*$_i$, and Mary does too.	✓[*Every candidate*]$_i$ thinks that [*he*]$_i$ will win.	*[*Everybody*]$_i$ thinks [*one*]$_i$ is a genius.
Coreference (Cond C)	Why not *?... ✓I$_i$ think that John saw *me*$_i$	✓[*John*]$_i$ thinks that [*he*]$_i$ will win.	*[*Mary*]$_i$ thinks [*one*]$_i$ is a genius.

(65) ✓*Mary*$_i$-ga [*kanozyo*$_i$-ga tensai-da to] omotte-iru
Mary-NOM she-NOM genius-COP COMP think-PRES
Mary$_i$ thinks that she$_i$ is a genius (Noguchi 1997:770,(2b) = (23b), D&W 2002:418)

Déchaine & Wiltschko 2002: English third person pronouns can occur in predicative position

(66) postcopular predicate position = (48), D&W 2002:425

a. That's [her]$_{pred}$.

b. *She's [that]$_{pred}$.

(67) participation in word formation = (51), D&W 2002:426

a. .[*she*]-male
.[*she*]-society
.[*she*]-oak

b. .[*he*]-goat
.a real [*he*]-man
.[*him*]-bo (vs. bimbo)

c. The [*hes*] would quarrel and fight with the females. (Jonathan Swift)

Déchaine & Wiltschko 2002: English pro-DPs (1st and 2nd person pronouns) "make an overt NP subconstituent available"

(68) Pro-phiPs preceding nouns = (32) D&W 2002:421

a. *we* linguists
b. *you* linguists
c. **they* linguists
d. *us* linguists
e. *you* linguists
f. */? *them* linguists

An aside: clitics appear when Khoekhoe's basic word order is scrambled

(9) khȍè -p ké rá !^{h}óe
person -M.SG DECL PRS run
The (male) person is running

(11) khȍè -s ké rá !^{h}óe
person -F.SG DECL PRS run
The (female) person is running

Clitics appear when Khoekhoe's basic word order is scrambled: subject clitics

(9′)	!ʰóe	=p	ké	rá	khȍè	-p	-àȁ
	run	-M.SG.SBJ	DECL	PRS	person	-M.SG	-OBL

The (male) person is RUNNING

(11′)	!ʰóe	=s	ké	rá	khȍè	-s	-àȁ
	run	-F.SG.SBJ	DECL	PRS	person	-F.SG	-OBL

The (female) person is RUNNING

Clitics appear when Khoekhoe's basic word order is scrambled: object clitics

(10) sáā́-k^h-ò ké ‖ʔī́-p kò mù
2-M-DU DECL 3-M.SG PST see
You (two guys) saw him

(10′) sáā́-k^h-ò ké kò mù -pí
2-M-DU DECL PST see -3.M.SG.OBJ
You (two guys) saw him

Having a Root-attached *n* bear gender has:

- allowed us to understand licensing restrictions between Roots and gender, minimizing superfluous lexical representations
- given an explanation for the partially regular, partially idiosyncratic (modifications to) meanings of gender-swapped inanimate nominals
- given an explanation for the gender imposed by nominalizations