An Argument for the Construct State in Zulu

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Linguistic Society of America Annual Meeting
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Ezafe

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Ezafe is a term from Persian,
borrowed from Arabic *iḍaafa*
referring to a specific morphosyntactic pattern in DPs.

Ezafe

While the name is borrowed from the Arabic term for what is referred to as the "construct state," *Ezafe* constructions are distinct.

Ezafe Examples

(1) a. otâq- e kuchek
room EZ small
'small room'

b. del- e sang
heart EZ stone
'stone heart'

c. shahr- e Tehran
city EZ Tehran
'city of Tehran'

d. manzel- e Sayid
house EZ Sayid
'Sayid's house

(following Larson & Yamakido 2005)

Ezafe Examples

(2) a. xune- ye kenâr- e daryâ
house EZ near EZ sea
'house on the beach'

b. ketâb- e sabz- e jâleb
book EZ green EZ interesting
'interesting green book'

c. ketâb- e sabz- e jâleb- e man
book EZ green EZ interesting EZ me
'my interesting green book'

(following Larson & Yamakido 2005)

Construct State

Construct State refers to a specific kind of DP in which "the N+n complex ... raise[s] to D and the agent ... stay[s] in situ."

(3) a. harisat ha- oyev 'et ha- 'ir
destruction the enemy OM the city
'the enemy's destruction of the city'

b. tipul ha- šiltonot ba- ba'aya
treatment the authorities in problem
'the authorities' treatment of the problem'

(following Adger 2003)

Disclaimer

DISCLAIMER:

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The original abstract/title argued for "construct state" in Zulu. While this analysis is not necessarily incompatible with that analysis, the licensing of deverbal nouns in Zulu and its relation to the present analysis needs more work to tease apart.

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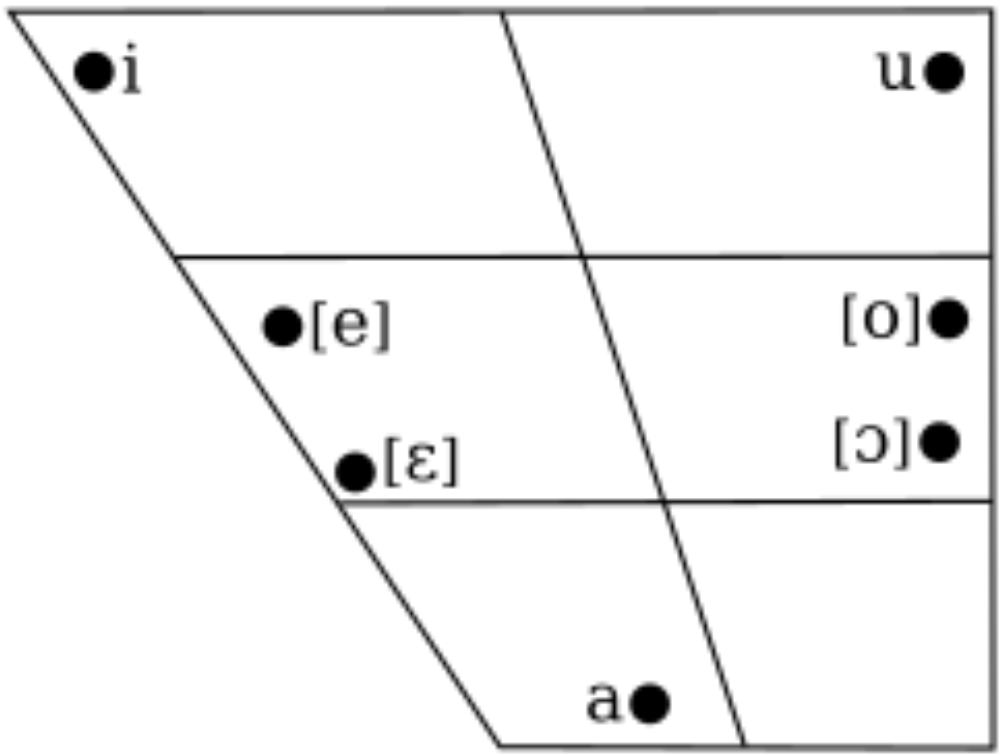
Vowels

Zulu has a 5 vowel system with /i/, /e/, /ɑ/, /o/, /u/.
The mid-vowels have lax allophones (/e/ → [ɛ], /o/ → [ɔ]) before /ɑ/.



Vowels in Hiatus

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Vowels in Hiatus

In Zulu, vowels do not surface in hiatus.
Four phonological processes:

1. insertion of a consonant
2. glide formation
3. deletion
4. coalescence

Coalescence

The low vowel adjacent to a high vowel triggers lowering of the high vowel.
Two low vowels in hiatus coalesce.
That is:

- i $\rightarrow$ e/ a__
- u $\rightarrow$ o/ a__
- aa $\rightarrow$ a

(4) ngi- na- i- nja $\rightarrow$ nginenja
I with CL9 dog
'I have a dog'

Noun classes

Zulu has 14 noun classes **none** of which have a mid vowel:

singular	plural	abstract	infinitive
umu	aba	ubu	uku
umu	imi		
i(li)	ama		
is(i)	izi		
iN	iziN		
u(lu)	iziN		

Complex DPs

Proposal: the phonological evidence suggests that in complex DPs there is an /ɑ/ that triggers lowering of high vowels in the noun class marker.

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2. Relatives

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2. Relatives
3. Quantitative Concords
4. "One" Concords
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6. Compound Nouns
7. Demonstratives

Why is this new?

Zulu is generally approached with:

- an inherited traditional bantuist approach
- morphological differences treated as idiosyncrasies that must be memorized
- popular focus on other topics (e.g., assuming noun classes can be further decomposed, whether the augment/pre-prefix are determiners)

A morphophonological wrinkle

All nouns are licensed by a class marker, and cannot appear without one.

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Complex DPs have a sophisticated system of agreement, with noun classes appearing to "stack".

Only adjectives retain nasals in noun classes. The deletion of nasals puts vowels in hiatus. If complex DPs have an overt /ɑ/ head, this will also be input to the phonology.

Agreement

Following Chomsky 1995 and subsequent work, I assume agreement requires c-command.

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A framework

Proposed framework:

1. adjectives CL_1-N_1 /ɑ/-CL_2-$Root_2$

A framework

Adjective:

(5) umu- ntu a- umu- de → *umuntu omude*
CL1 person DET CL1 tall
'A tall guy'

A framework

Proposed framework:

1. adjectives CL_1-N_1 /a/-CL_2-$Root_2$
2. relatives CL_1-N_1 /a/-CL_2-$Root_2$ (*NAS)

A framework

Relative:

(6) umu- ntu a- umu- qotho → *umuntu oqotho*
CL1 person DET CL1 honest
'An upstanding guy'

a-umu-qotho
→ a-u∅u-qotho
→ a-u-u-qotho
→ a-u-qotho
→ o-qotho

Predicative use

This /ɑ/ does not occur in predicative use:

(7) a. umu- ntu ∅- mu- de
CL_1 person ∅ CL_1 tall
'The man is tall'

b. umu- ntu u- qotho
CL_1 person $SUBJ_1$ honest
'The man is honest'

c. i- ncwadi yi- ngu- bu- so
CL_9 book $SUBJ_9$ COP CL_{13} face
?? 'The book is a face'

Adjectives

Attributive	Predicative
um(u)-fana om-khulu	umfana m-khulu
umu-thi omu-hle	umuthi mu-hle
i-hhashi eli-ncane	ihhashi li-ncane
isi-tsha esi-hle	isitsha si-hle
in-ja en-kulu	inja in-kulu
izin-ja ezin-kulu	izinja zin-kulu
u(lu)-thi olu-de	uthi lu-de

Relatives

Attributive	Predicative
um(u)-fana o-qotho	um(u)-fana u-qotho
aba-fana aba-qotho	aba-fana ba-qotho
umu-thi obomvu	umu-thi u-bomvu
imi-thi ebomvu	imi-thi i-bomvu
i(li)-qiniso eli-nqunu	i(li)-qiniso li-nqunu
ama-tshe ama-mbalwa	ama-tshe ambalwa
isi-hlalo ebomvu	isi-hlalo si-bomvu
izi-hlalo ezi-bomvu	izi-hlalo zi-bomvu
in-dlu emnyama	in-dlu i-mnyama
izin-dlu ezi-mnyama	izin-dlu zi-mnyama
u(lu)-donga olu-mhlophe	u(lu)-donga lu-mhlophe
izin-donga ezi-mhlophe	izin-donga zi-mhlophe
ubu-hlalu obu-luhlaza	ubu-hlalu bu-luhlaza
uku-khanya oku-bomvu	uku-khanya ku-bomvu

A framework

Proposed framework:

1. adjectives CL_1-N_1 /a/-CL_2-$Root_2$
2. relatives CL_1-N_1 /a/-CL_2-$Root_2$ (*NAS)
3. compound CL_1-N_1 CL_1-/a/-CL_2-N_2

A framework

Compound noun:

(8) I- ncwadi i- a- ubu- so → *incwadi yobuso*
CL$_9$ book CL$_9$ DET CL$_{13}$ face
'FaceBook'

i-a-ubu-so
→ i-obu-so
→ yobuso

A framework

Proposed framework:

1. adjectives CL_1-N_1 /a/-CL_2-$Root_2$
2. relatives CL_1-N_1 /a/-CL_2-$Root_2$ (*NAS)
3. compound CL_1-N_1 CL_1-/a/-CL_2-N_2
4. possessive CL_1-N_1 CL_1-/a/-PRN

Possessives

(9) a. in- cwadi i- a- mi → incwadi yami
CL$_9$ book CL$_9$ DET me
'my book'

b. ubu- so b- a- khe → ubuso bakhe
CL$_{14}$ face CL$_{14}$ DET khe
'her face'

A framework

Proposed framework:

1. adjectives CL_1-N_1 /a/-CL_2-$Root_2$
2. relatives CL_1-N_1 /a/-CL_2-$Root_2$ (*NAS)
3. compound CL_1-N_1 CL_1-/a/-CL_2-N_2
4. possessive CL_1-N_1 CL_1-/a/-PRN
5. demonstrative DEM-/a/-CL_1 $(\mathrm{MED/DIST})$ (N_1)

Demonstratives

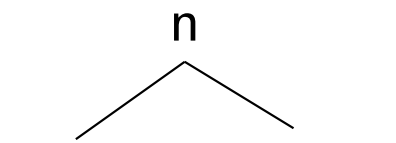
(10) a. lo muntu

b. lo-wo muntu

c. lo-waya muntu

A Possible Tree

(11)



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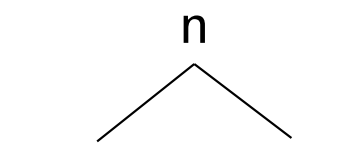

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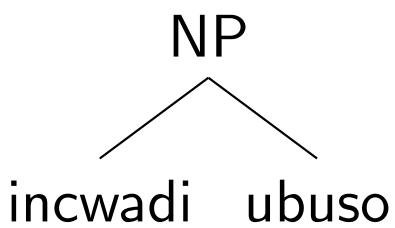

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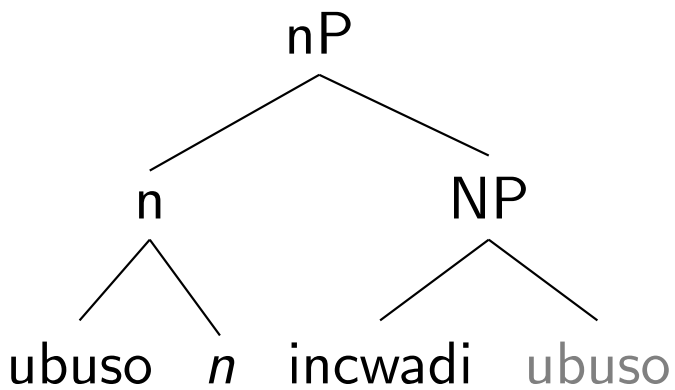

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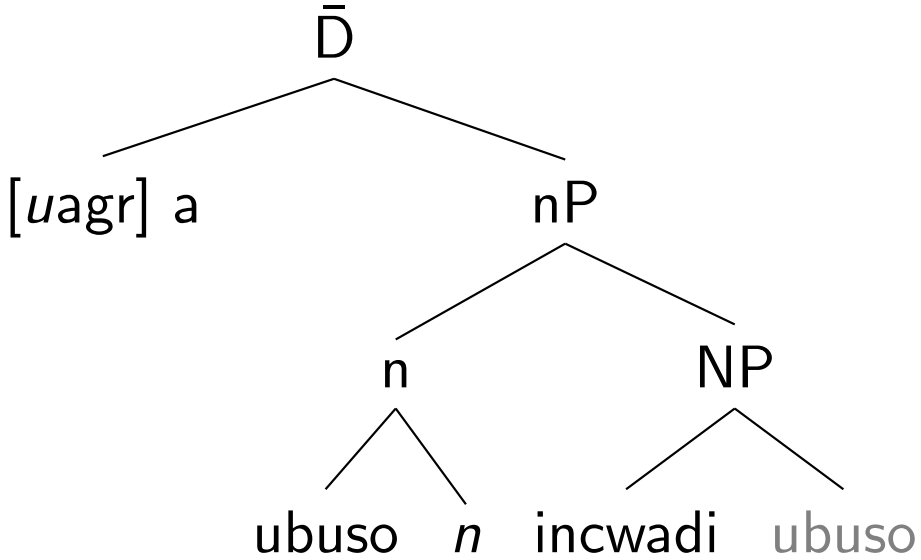

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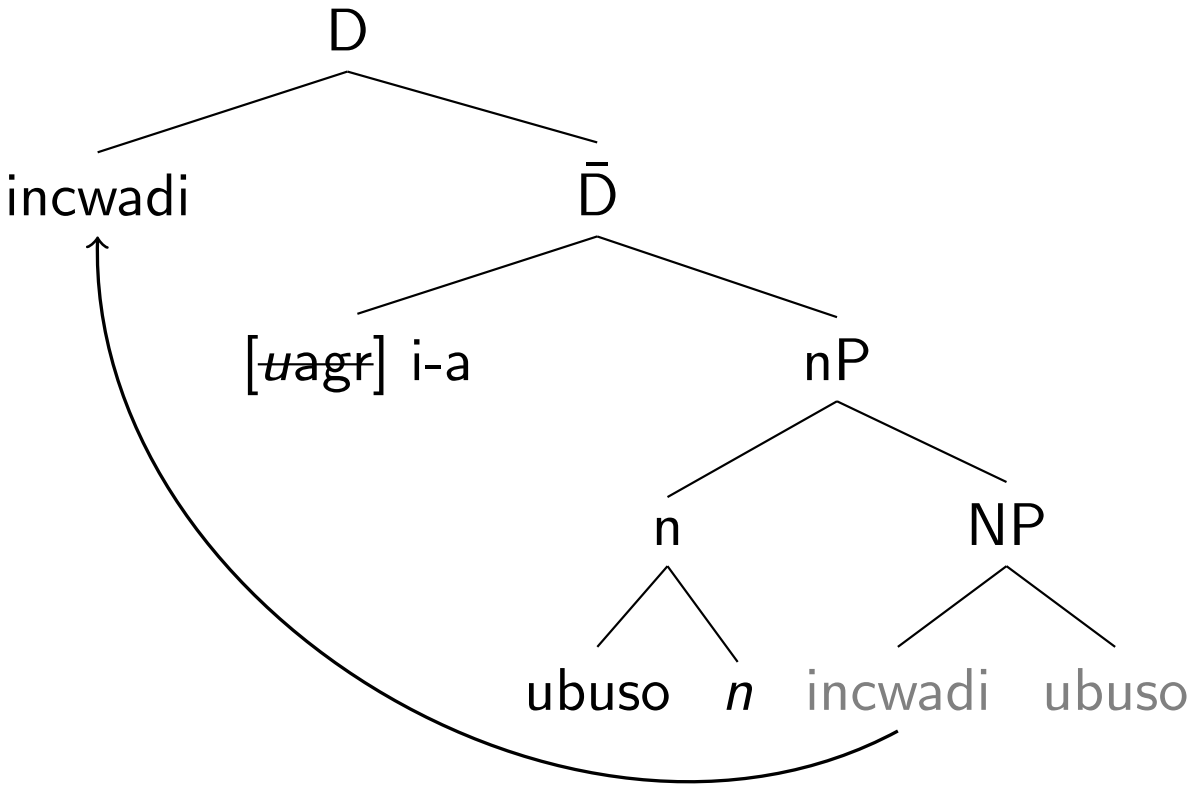


incwadi yobuso ‘facebook’

Recursion

The above structures can be combined recursively, with /a/ surfacing with each item (as with Ezafe):

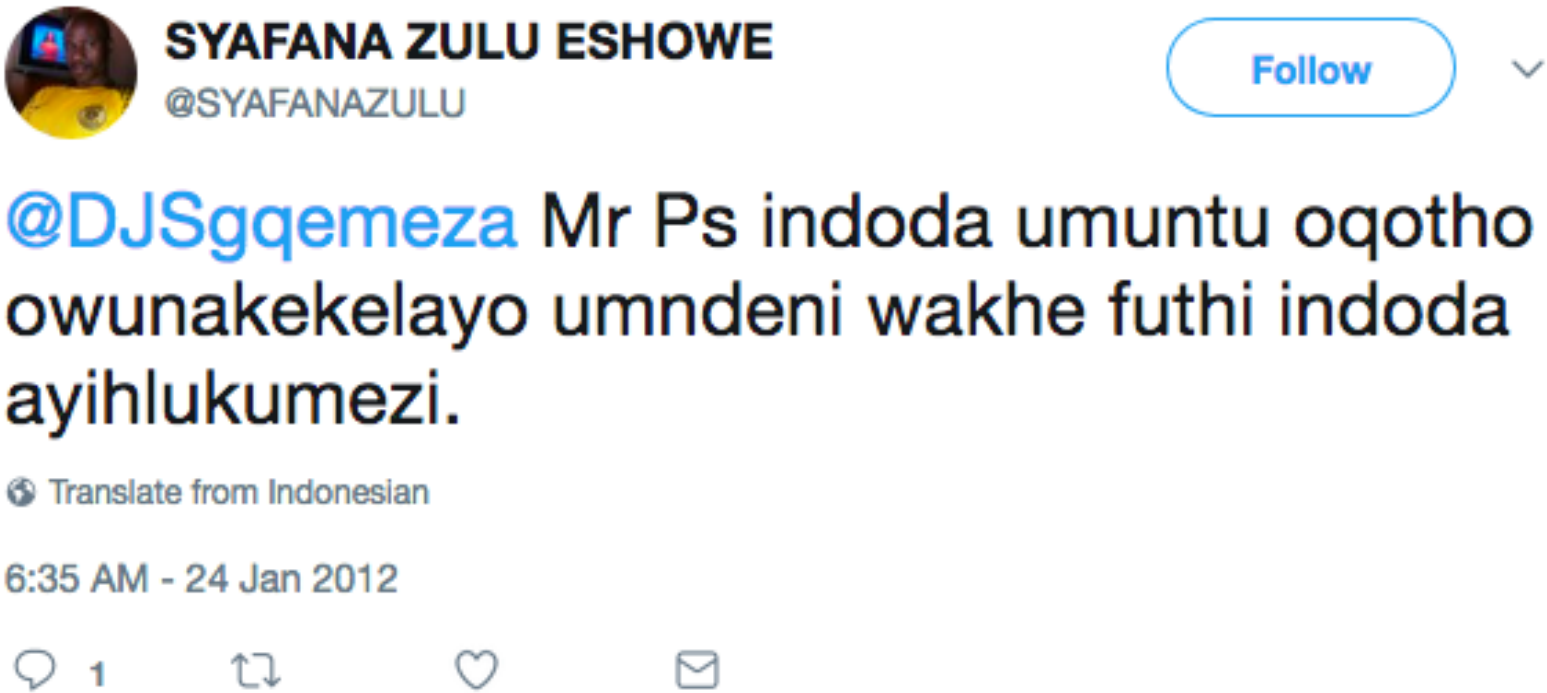
(13) a. umlenze wakhe obuhlungu
CL_3.leg CL_1.DET.his DET.CL_{14}pain
'his painful leg'

b. umntwana wakhe omhlophe qwa
CL_1.boy CL_1.DET.his DET.CL_1white ID
'his very white boy'

c. umuntu wesifazane owaliwe →
CL_1person CL_1.DET.woman DET.divorced
umu-ntu u-a-isi-fazane u-a-

'a divorced woman'

Recursion



SYAFANA ZULU ESHOWE
@SYAFANAZULU

Follow

@DJSgqemeza Mr Ps indoda umuntu oqotho owunakekelayo umndeni wakhe futhi indoda ayihlukumezi.

Translate from Indonesian

6:35 AM - 24 Jan 2012

1

Recursion

(14)

umu-	ntu	o-	qotho	o-	wu-	
CL_1	person	DET.CL_1	honest	DET.CL_1	OM_1	
nakekela-	yo	um-	ndeni	w-	a-	khe
take-care-of	VERB	CL_1	family	CL_1	DET	PRN

'a sincere person who takes care of his family'

umuntu oqotho owunakekelayo umndeni wakhe

Spanish Clitics

Morphological complexity within what are at first glance non-decomposible units is not new in Minimalism/Distributed Morphology.

Spanish Clitics (from Halle and Marantz 1994)

a. First Person: *m-e* (singular); *n-o-s* (plural)
   [same for accusative, dative, and reflexive]
b. Second Person: *t-e* (singular); *o-s* (plural)
   [same for accusative, dative, and reflexive]
c. Third Person

case	**number**	**masc.**	**fem.**
acc	sg	l-o	l-a
	pl	l-o-s	l-a-s
dat	sg	l-e	l-e
	pl	l-e-s	l-e-s
REFL	sg	s-e	s-e
	pl	s-e	s-e

(Cited in Embick 2005)

Morphological Complexity

Because Zulu is agglutinative, decomposing words into meaningful morphemes is not surprising. However, the phonological evidence suggests that Zulu may have morphologically decomposable syllables — in extreme cases, morphologically decomposable *vowels*— that are doing serious syntactic work.

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- This morpheme greatly simplifies the analysis of a wide range of DP structures, and greatly reduces the grammatical burden on the native learner.
- This morpheme is conspicuously absent in predicate adjectives, predicate relatives, and more generally, across phrase boundaries.
- This structure looks similar to Persian Ezafe.

Unresolved issues

The present analysis leaves some questions unanswered, and raises some questions for future analyses:

- agreement in demonstratives when the noun raises:e.g., *umuntu lo*
- the nature of the pre-prefix/class augment: still D°?
- restrictions on word type/order in complex DPs?
- the nature of deverbal nouns and relation of phrases with such nominals to the construct state

Destruction

The enemy's destruction of the city:

(15) a. isitha sabhuqa idolobha
CL$_7$.enemy SUBJ$_7$.destroy CL$_5$.city

b. ukubhuqwa kwedolobha (isitha)
CL$_{15}$.destruction CL$_{15}$.DET.CL$_5$.city (CL$_7$.enemy)

c. ?ukubhuqwa kwesitha
CL$_{15}$.destruction CL$_{15}$.DET.CL$_7$.enemy
kwedolobha
CL$_{15}$.DET.CL$_5$.city

Thanks

Thank You!

Thanks also to Audrey Mbeje, Zinyusile Khumbula, Dave Embick, Julie Legate, Luke Adamson, Kajsa Djarv, C.L.S. Nyembezi, and Zulu Twitter.

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