

# Licensing external arguments: Some Zulu case puzzles revisited\*

Claire Halpert

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## 1 Introduction

### 1.1 The plan

**In this talk** I focus on the picture emerging surrounding argument licensing in Zulu (Bantu, S42).

- What phenomena in the language suggest that (morpho)syntactic licensing of nominals is required?
- What can we learn about the precise mechanisms for any such licensing?
- (How) does this licensing fit with broader typological patterns and proposed mechanisms for structural case/Vergnaud licensing (see Sheehan and van der Wal, 2018).

### 1.2 A rocky landscape

**What's up with structural case** in Bantu languages?

- **Diercks (2012)**: parameterize Case Filter, turn it off in Bantu family
- **van der Wal (2015)**: at least some Bantu languages, like Makhuwa, show evidence for typical structural case system

Zulu is complicated!

- Nonagreeing **VSO** prevalent (Buell, 2006; Halpert, 2012, 2015; Carstens and Mletshe, 2016)
- **Hyperraising to subject** is optional (Zeller, 2006; Halpert, 2015, 2016, 2019a)

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- Raising from infinitives is unavailable (Halpert, 2019a)
- **Hyper-raising to object** is optional<sup>1</sup> (Halpert, 2015; Halpert and Zeller, 2015)
- **Augmentless nominals** are structurally restricted to certain low positions (Halpert, 2012, 2015; Carstens and Mletshe, 2016)
- External arguments in **passives** are morphologically marked in Spec,vP (Halpert and Zeller, 2016; Halpert, 2019b)
- External arguments in **infinitives** are morphologically marked in Spec,vP (Halpert, 2019b, to appear)
- **Today: unmarked possession** puts a possessor in an asymmetric A-position in vP

**Taken together** these patterns suggest that there's at least one system of structural licensing

- It's not clear to me whether typical assumptions about case assignment will capture these facts

**For today** we'll set aside the patterns governing augmentless nominals and focus on the comings and goings of external arguments, loosely construed.

- **First**, we'll review raising-to-subject and raising-to-object to see that there's no evidence that structural licensing is a driving force in these patterns.
- **Then** we'll look at two spots where life gets tricky for external arguments in case languages: passives and infinitives.
- **Finally**, possessor raising shows us another place where nominal movement/distribution gets more restricted.

## 2 Preliminaries

Like most Bantu languages, Zulu has **obligatory subject agreement** morphology and **optional object agreement** morphology on verbs.

In Zulu, predicates agree with **vP-external arguments** only.

- **Subject agreement:** tracks highest **vP-external/pro**-dropped argument.
- **Expletive agreement** (*ku-*): appears if no vP-external subject.
- **Object agreement:** appears *only* when an object is *pro/vP-external*.

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<sup>1</sup>Though required for augmentless nominals.

(1) **Pre-verbal/pro-dropped agreed-with subjects**

- a. (**uZinhle**) **u-** xova ujeqe  
 AUG.1Zinhle SM1- make AUG.1steamed.bread  
 ‘Zinhle is making steamed bread.’
- b. (**omakhelwane**) **ba-** xova ujeqe  
 AUG.2neighbor SM1- make AUG.1steamed.bread  
 ‘The neighbors are making steamed bread.’

When the subject remains postverbal, we get **default agreement**: class 17 *ku*.<sup>2</sup>

(2) **vP-internal subjects: agreement prohibited**

- a. \***u-** pheka uZinhle kahle  
 SM1- cook 1Zinhle well
- b. **ku-** pheka uZinhle kahle  
 SM17- cook AUG.1Zinhle well  
 ‘Zinhle cooks well.’

When objects remain in situ, no object agreement appears, as in (1).

When an object appears outside of vP, it controls object agreement:

- (3) uZinhle u-ya-**m**-xova kahle ]<sub>vP</sub> **ujeqe**  
 AUG.1Zinhle SM1-DJ-OM1-make well AUG.1steamed.bread  
 ‘Zinhle makes steamed bread well.’

**vP-internal subjects** in **transitive** constructions (TECs) trap lower arguments!<sup>3</sup>

- Lower arguments can’t control subject agreement *or* object agreement!

- (4) a. ku-phek-e uSipho amaqanda  
 SM17-cook-PST AUG.1Sipho AUG.6egg  
 ‘SIPHO cooked eggs.’
- b. \* a-phek-e uSipho (amaqanda)  
 SM6-cook-PST AUG.1Sipho AUG.6egg  
 intended: ‘SIPHO cooked them.’

<sup>2</sup>As Buell and de Dreu (2013) note, in modern Zulu, classes 15 and 17 have become indistinguishable. For clarity here, I follow the convention of marking default agreement as class 17, but infinitives as class 15.

<sup>3</sup>There are a few limited cases in Zulu where a locative or instrumental argument can control subject agreement while the external argument remains in vP (Buell, 2007; Zeller, 2013). Zeller (2013) argues that these cases involve introduction of the instrument or locative in a position structurally higher than vP, which would make them non-exceptions to this generalization.

- c. \* ku-wa-phek-e      uSipho      (amaqanda)  
SM17-OM6-cook-PST AUG.1Sipho AUG.6egg  
intended: ‘SIPHO cooked them.’
- (5) a. kw-a-nikeza      uMfundo      izingane      amavuvuzela  
SM17-PAST-give AUG.1Mfundo AUG.10child AUG.6vuvuzela  
‘MFUNDO gave the children vuvuzelas.’
- b. \* kw-a-zi-nikeza      uMfundo amavuvuzela      (izingane)  
SM17-PAST-OM10-give AUG.1M AUG.6vuvuzela AUG.10child  
intended: ‘MFUNDO gave them vuvuzelas.’
- c. \* kw-a-wa-nikeza      uMfundo izingane      (amavuvuzela)  
SM17-PAST-OM6-give AUG.1M AUG.10child AUG.6vuvuzela  
intended: ‘MFUNDO gave them to the children.’

**Word order** in these constructions is completely **rigid**: V S (IO) DO

- Halpert (2015): rigid order reflects base positions of arguments in vP.

**Main takeaways** about agreement and argument structure:

- Agreement correlates with movement out of vP.
- Low subjects block other arguments from agreeing/moving.<sup>4</sup>
- Arguments do not need agreement to be structurally licensed.

### 3 Hyperraising: can’t keep a finite subject down!

As we saw, the highest argument in a Zulu predicate does not necessarily control agreement.

When it does, it can potentially feed **hyperraising** to an A-position in a higher clause.

Zulu *prohibits* raising out of a nonfinite TP, but *optionally allows* raising out of finite CP:

- (6) **Zulu raising-to-subject** (Halpert, 2019a, (3))
- a. ku- bonakala [ ukuthi **uZinhle**      **u-** zo- xova ujeqe      ]  
17S- seems      that      AUG.1Zinhle 1S- FUT- make AUG.1steamed.bread
- b. **uZinhle<sub>i</sub>**      **u-** bonakala [ ukuthi **t<sub>i</sub>** **u-** zo- xova ujeqe      ]  
AUG.1Zinhle<sub>i</sub> 1S- seem      that      t<sub>i</sub> 1S- FUT- make AUG.1steamed.bread
- c. \* **uZinhle<sub>i</sub>**      **u-** bonakala [ t<sub>i</sub> uku- (zo-) xova ujeqe      ]  
AUG.1Zinhle<sub>i</sub> 1S- seem      t<sub>i</sub> INF- (FUT-) make AUG.1steamed.bread  
‘It seems that Zinhle will make bread.’

<sup>4</sup>Zeller (2015) argues that in Zulu T—the host of subject agreement—must probe before other heads in the same phase, including the host of object agreement. If the non-agreeing subject is a defective intervener, it would necessarily block both subject and object agreement on this view.

(7) **Zulu raising-to-object** (Halpert and Zeller, 2015, (3))

- a. Ngi-funa [ ukuthi **u-Sipho** a-phek-e i-qanda]<sub>CP</sub>  
 1SG-want that AUG-1a.Sipho 1.SM-cook-SUBJ AUG-5.egg  
 ‘I want Sipho to cook an egg.’
- b. Ngi-funa **u-Sipho** [ ukuthi a-phek-e i-qanda]<sub>CP</sub>  
 1SG-want AUG-1a.Sipho that 1.SM-cook-SUBJ AUG-5.egg  
 ‘I want Sipho to cook an egg.’

Raising-to-subject takes a preverbal subject from the finite embedded clause and moves it to preverbal position in the higher clause.

Raising-to-object takes a preverbal subject from the embedded clause and moves it to a post-verbal position in the higher clause.

- Halpert and Zeller (2015): landing site for raising-to-object is a **vP-internal A position**
- Not clear precisely where/why this position is available inside vP.

### 3.1 What does it mean for case/licensing?

Sheehan and van der Wal (2018): *hyperactivity*—and absence of raising in *infinitive* environments—suggest that a language lacks abstract nominal licensing associated with finiteness.

Halpert (2019a): hyperraising not driven by structural case but is compatible with nominative-type licensing systems (as in Spanish or Brazilian Portuguese).

## 4 Passives and infinitives: life gets tricky for subjects

While the basic raising profiles for Zulu look dramatically different on the surface from those of structural case languages like English, passives and infinitives don’t look so different:

- External argument becomes optional
- When expressed, the optional external argument is marked with oblique morphology

(8) **Overt passive agent marked by copula morpheme**

leli windi l-a-bula-wa (**y-izingane**)  
 5DEM 5window 5SM-PST-kill-PASS COP-AUG.10child  
 ‘This window was broken (by the children).’

(9) **Overt infinitival agent marked by associative morpheme**

uku-gijima (**kwa-kho**) ku-ngcono  
 AUG.15-run 15ASSOC-2SG.PRO 15SM-better  
 ‘(Your) running is better.’

**Looks can be deceiving:** Halpert and Zeller (2016) and Halpert (2019a, to appear) argue that in both of these constructions, the optional agent is...

- in Spec, $\nu$ P—and not an adjunct!
- a non-intervener for A-processes (movement and agreement)

**Rigid word order** (recall  $\nu$ P-internal subjects trigger V S IO DO):<sup>5</sup>

- (11) USipho w-a-nikez-w-a **w-uMary** incwadi  
 AUG.1Sipho SM1-PST-give-PASS COP-AUG.1Mary AUG.9book  
 ‘Sipho was given a book by Mary.’
- (12) a. [u-ku-nikeza **kwa-khe** izingane amavuvuzela]  
 AUG-15-give 15.ASSOC-1PRO AUG.10child AUG.6vuvuzela  
 ku-ya-ngi-casula  
 15SM-DJ-1SG.OM-annoy  
 ‘His giving the children vuvuzelas annoys me.’
- b. \* [u-ku-nikeza izingane amavuvuzela **kwa-khe**]  
 AUG-15-give AUG.10child AUG.6vuvuzela 15.ASSOC-1PRO  
 ku-ya-ngi-casula  
 SM15-DJ-1SG.OM-annoy  
 ‘His giving the children vuvuzelas annoys me.’

**External argument can bind into following arguments**, indicating a c-command relationship:

- (13) uThembi u-nikez-w-e **yi-wo wonke umfana** isithombe sakhe  
 AUG.1T 1SM-give-PASS-PST COP-1PRO 1every AUG.1boy AUG.7pic 7ASSOC.1POSS  
 ‘Thembi<sub>j</sub> was given his<sub>k</sub>/her<sub>j</sub> picture by every boy<sub>k</sub>.’
- (14) uku-nikeza kwa-wo wonke umuntu intombi isithombe  
 AUG.15-give 15ASSOC-1DEM 1.every AUG.1person AUG.9girl AUG.7picture  
 sa-khe ku-thatha isikhathi  
 7ASSOC-1PRO SM15-take AUG.7time  
 ‘For everyone<sub>k</sub> to give the girl<sub>m</sub> his<sub>k</sub> picture takes a long time.’

<sup>5</sup>By contrast, adjuncts typically can’t precede  $\nu$ P-internal objects:

- (10) ?\*ngi-bhala **nge-peni** incwadi  
 1SG.SM-write INSTR.AUG-5pen AUG.9letter  
 intended: ‘I write with a pen the letter.’

A caveat, though: as Halpert and Zeller (2016) discuss, some speakers also have an alternate long passive in which the agent is expressed as an adjunct. As we discuss, that construction can be systematically distinguished from the one outlined here.

But, unlike low subjects in finite transitive constructions:

- **the morphological marking is obligatory**
- **the subject doesn't block** other movement out of vP.

(15) **Infinitive subject does not intervene for object agreement**

- a. [uku-zi-nikeza kwakhe amavuvuzela] ku-ya-ngi-casula  
 AUG15-10OM-give 15.ASSOC-1PRO AUG.6vuvuzela SM15-DJ-1SG.OM-annoy  
 'His giving them vuvuzelas annoys me.'
- b. [uku-wa-nikeza kwakhe izingane] ku-ya-ngi-casula  
 AUG15-6OM-give 15.ASSOC-1PRO AUG.10child SM15-DJ-1SG.OM-annoy  
 'His giving them to the children annoys me.'

**Summary:** passives and infinitives can take optional overt external arguments in Spec,vP that are morphologically marked and do not intervene for lower arguments.

#### 4.1 What does it mean for case/licensing?

As Sheehan and van der Wal (2018) note, in languages that truly lack any form of case/Vergnaud licensing, we'd expect to see:

- Passives: If an overt external argument is permitted, should not require any special morphological marking or structural position.
- Infinitives: should permit unmarked external arguments in normal subject positions.

Zulu clearly seems to be restricting both position and marking for external arguments in these constructions—a hallmark of Vergnaud licensing!

## 5 Unmarked possession

Finally, we'll look at yet another phenomenon that is often characterized as being governed by case/structural licensing: possession.

As Sabelo (1990) details, certain types of possessor relations can be expressed via a preceding unmarked possessor instead of an associative construction.

**Associative:** a general strategy for marking adnominal dependents (see Sabelo, 1990; Halpert, 2015; Jones, 2018)

- (16) a. umkhovu wo-mthakathi  
 AUG.3zombie 3ASSOC.AUG-1wizard  
 'the wizard's zombie'

u+a+u → wo

- b. isiminyamina **se**-mikhovu  
 AUG.7swarm 7ASSOC.AUG-4zombie  
 ‘a horde of zombies’ si + a + i → se
- c. um-cabango **we**-mikhovu  
 AUG.3thought 3ASSOC.AUG-4zombie  
 ‘the thought of zombies’ u + a + i → we  
 (Halpert, to appear, (10))

**Unmarked possession:** certain possessors immediately precede possessee with no associative.<sup>6</sup>

- (17) a. **ngi-phul-e** **umfana** ingalo  
 1SG-break-PFV AUG.1boy AUG.9arm  
 ‘I broke the boy’s arm.’ (Sabelo, 1990, p. vi, glosses added)
- b. **umfana** u-nquma **inja** umsila  
 AUG.1boy 1SM-cut AUG.9dog AUG.3tail  
 ‘The boy cuts the dog’s tail.’ (Sabelo, 1990, p.89, glosses added)

Despite their rigid word order inside  $\nu P$ , they act like syntactic arguments of the matrix predicate:

- Can raise to agreeing subject position in unaccusatives and passives

- (18) a. **ingulube** **i-phuk-e** umlenze  
 AUG.9pig 9SM-break-PFV AUG.3leg  
 ‘The pig’s leg is broken.’ (Sabelo, 1990, p.96, glosses added)
- b. **ngi-phul-w-e** (ngo-yedwa) inhliziyo  
 1SG-break-PASS-PFV (COP.AUG-1.alone) AUG.9heart  
 ‘My heart was broken (by them alone).’

- Can control object agreement in transitives:

- (19) uThemba **ba-m-shay-e** ingalo  
 AUG.1Themba 2SM-1OM-hit-PFV AUG.9arm  
 ‘They hit Themba’s arm.’ (Sabelo, 1990, p. 96, glosses added)

Notably, the possessee in these constructions cannot raise/control agreement:

- (20) \* ingalo i-phuk-e **lo** **mfana**  
 AUG.9arm 9SM-break-PFV DEM.1 1boy  
 (adapted from Sabelo, 1990, p.96)

<sup>6</sup>Van de Velde (2020) characterizes these constructions across Bantu as “concernee-concern” constructions. I’ll set aside the issue of how to precisely characterize these in Zulu, though see Sabelo (1990) for some discussion.



- (21) a. Inkosi i-khiph-e **i-zi-nhloli** a-m-ehlo.  
 AUG.9chief SM9-take.out-PAST AUG-10-spy AUG-6-eye  
 ‘The chief took the eyes out of the spies.’
- b. Inkosi **i-zi-khiph-e** a-m-ehlo.  
 AUG.9chief SM9-OM10-take.out-PAST AUG-10-spy AUG-6-eye  
 ‘The chief took out their eyes (of the spies).’
- c. \* Inkosi i-wa-khiph-e **i-zi-nhloli**.  
 AUG.9chief SM9-OM6-take.out-PAST AUG-10-spy AUG-6-eye  
 ‘The chief took them out (the eyes) of the spies.’ (Zeller, 2012, (33))

By contrast, double-object constructions in Zulu are symmetrical: either IO or DO may raise to subject or control object agreement in comparable configurations (see Zeller, 2012).

Also notable: when an externally possessed DO combines with an IO in an applicative construction, IO precedes the possessor:

- (22) a. uku-sula **umfana** ubuso  
 AUG.15-wipe AUG.1boy AUG.14face  
 ‘to wipe the boy’s face’
- b. uku-sul-ela ugogo **umfana** ubuso  
 AUG.15-wipe-APPL AUG.1grandmother AUG.1boy AUG.14face  
 ‘to wipe for the grandmother her boy’s face’ (Sabelo, 1990, p. 95, glosses added)

**Possible control?** Semantic restriction to a subset of concernee-concern relations (see Van de Velde, 2020) and predicates that yield ‘affectedness’ suggest that the unmarked ‘possessor’ could be an argument of the main predicate (e.g. Cinque and Krapova, 2009; Deal, 2013).

**I suggest instead** that the possessor in these constructions begins as a specifier of the possessee nominal—and not as an argument of the verb (following Henderson, 2014, for Chimwiini)

- As we’ve seen, the possessor systematically does not behave like a thematic argument of the verb (as Henderson, 2014, also demonstrates for Chimwiini).

It clearly can be the goal for various A-processes (subject and object movement/agreement)—but in cases where it doesn’t agree, has it undergone movement?

- Perhaps not—it’s ‘trapped’ between IO and DO in (22b), so it couldn’t have gone far.
- Need to poke around more here!

## 5.1 What does it mean for case/licensing?

Absence of morphological marking on possessor yielding syntactic movement: looks like case!

Even though it *can* remain inside *vP*, doesn't show the typical flexibility wrt movement/agreement: if something moves, it *must* be the possessor—and not the possessee!

Still need to determine what its surface position is in the *vP*-internal cases—and if there is licensing at play, how it can be licensed in this position.

We know from raising-to-object that there *is* a non-thematic A-position that nominals can move to inside *vP*; need to investigate precise location (Halpert and Zeller, 2015, were inconclusive).

## 6 What does it mean for case/licensing?

So what does it all mean?

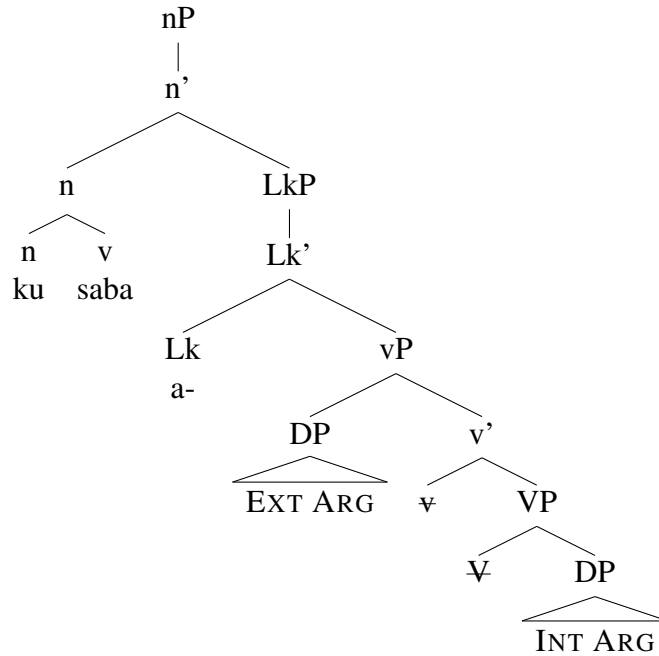
A (partial) licensing scorecard

Environment	Vergnaud Licensing (adapted from Sheehan and van der Wal, 2018)	Zulu
T agreement	should track subject	non-agreeing subjects possible
Activity	hyperactivity suggests no nominal licensing (associated with T)	hyperactivity abounds
Nonfinite clauses	if overt referential DP subjects cannot appear, then the language has Vergnaud licensing	infinitival subjects require special licensing
Passives	“If the agent-DP of a passive can be realised without special morphology or some alternative licensing mechanism...then Vergnaud licensing may not play a role in the language” (p.534)	passive agents require special licensing
Possessor raising	Absence of a case assigner like genitive should require a possessor to move for alternate licensing	Zulu appears to have a possessor-raising construction, but unclear whether the possessor can actually be licensed in situ

The fact that passives and infinitives seem to compromise external arguments is exactly what we might expect in a nominative-accusative language—though with the added twist of the in situ licensing strategy.

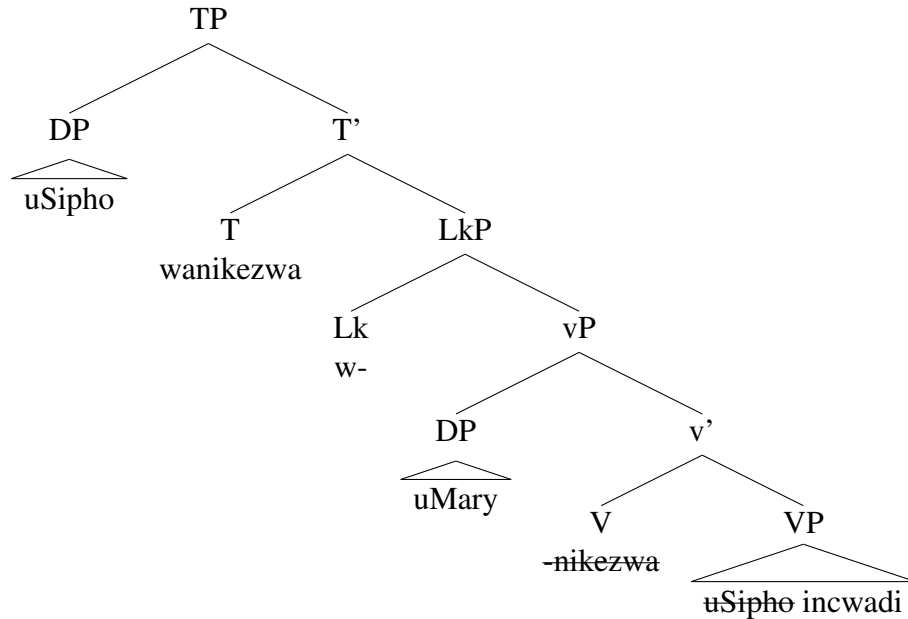
In Halpert (to appear) and Halpert (2019a), I build on Halpert and Zeller (2016) to suggest that in both of these constructions, external arguments are licensed by a LinkerP (Baker and Collins, 2006) just above *vP*:

(23)



(24) USipho w-a-nikez-w-a w-uMary incwadi  
 AUG.1Sipho SM1-PST-give-PASS COP-AUG.1Mary AUG.9book  
 ‘Sipho was given a book by Mary.’

(25)



As an **acategorical head**, the Linker is realized as

- Copula when selected by T (see Schneider-Zioga, 2015a,b, on the Kinande Linker as a copula)

- Associative when selected by *n* (see Pietraszko, 2019, on associative as a Linker).

Another place where LkP pops up? Possessor raising! (see Deal, 2013, on the landing site for raised possessors as a Lk head).

Other Linker proposals tend to put LkP inside  $vP$ —but I’m suggesting that we need a licensing head right above  $vP$  in Zulu.<sup>7</sup>

**Something to sort out:** Is a LkP *always* present in Zulu clauses, just taking different forms depending on circumstance?

- Schneider-Zioga (2015a,b) argues that the Kinande Linker is a “last resort” mechanism, which seems to be the case for Baker and Collins (2006) as well.
- Could it also be possible that LkP could appear in multiple positions in Zulu (maybe lower for possessor raising?)
- In Kinande, Linker attracts a specifier—does this ever happen in Zulu?

## 7 Conclusion

We took a whirlwind tour of several Zulu constructions that seem to implicate case/licensing.

I’ve suggested that taken altogether, we’re starting to see a need for something like structural licensing (either alternating with morphological licensing, as in possessor raising or yielding morphological marking) just above  $vP$ , rather than at *T*.

Lots of open questions...

- If all nominals must be licensed, what is involved in licensing internal arguments?
- How precisely does the Linker/licensing head cash out in every scenario?
- ...

...but the picture is getting clearer as we continue to add phenomena to this collection.

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<sup>7</sup>This domain of licensing looks quite similar to what I propose for argumentless licensing in Halpert (2015), but I’m not sure whether we could mesh these two apparent types of licensing.

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