

# Raising Parameters

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## 1. Introduction

In this paper, I investigate cross-linguistic variation in raising-to-subject constructions. As a starting point, we can consider the following contrast between English and the Bantu language Zulu. As we see in (1) and (2), English requires raising out of nonfinite TP, but prohibits it out of a finite clause:

- (1) a. John<sub>i</sub> seems t<sub>i</sub> to eat pizza.                      (2) a. It seems that John eats pizza.  
b. \*It seems John to eat pizza.                              b. \*John<sub>i</sub> seems (that) t<sub>i</sub> eats pizza.

Zulu, by contrast, *prohibits* raising out of a nonfinite TP but *allows* it out of a finite CP, as (3) shows:

- (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.'

This contrast poses a puzzle: what is behind the different raising profiles that we find in these two languages? Typical approaches to raising view the English-type pattern as standard, while the Zulu pattern of “hyper-raising” is treated as exceptional (e.g. Ura, 1994). In this paper I attempt to re-center the discussion in order to more easily capture the cross-linguistic variation in raising patterns. Specifically, I argue that the observed cross-linguistic variation in raising patterns is the predictable result of the Phase Impenetrability Condition as an A-over-A configuration (Chomsky, 1964; Rackowski & Richards, 2005). I propose that a language’s raising profile depends on independently observable properties of TP and CP in the language, including: 1) whether CPs or infinitival clauses are phi-goals; and 2) the presence (and type of) EPP effect on T.

## 2. Background: ingredients for raising

Raising predicates are unaccusatives that take as their sole argument a clausal internal argument. Early descriptions of raising to subject (e.g. Rosenbaum, 1967; Postal, 1970, 1974) identify these predicates in English in terms of an *alternation*: the same matrix predicate may appear with a complement clause containing a subject position gap that is “filled” by the matrix subject, as in (1a); with an expletive subject and a complement clause that has an overt subject, as in (2a); or in some cases with the complement clause itself appearing in subject position:

- (4) [That John ate pizza]<sub>i</sub> is likely t<sub>i</sub>.

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Not all such predicates in a language will be raising predicates, however, and not all raising predicates in a language will show the same complementation patterns. In English, for example, raising predicates vary in whether they permit a CP complement (e.g. *seem, be likely, happen*), a nonfinite TP complement (e.g. *seem, be likely, happen, tend*), or a small clause complement (e.g. *seem, be likely, keep*). Any possible raising predicate therefore needs to be checked for raising behavior across clause types. We can think of the *raising profile* of a language as the patterns that emerge from this investigation.

Analyses of raising have largely been viewed through the lens of the English-type raising profile. An account of English needs to determine what factor(s) force raising to occur out of nonfinite clauses and what factor(s) prohibit raising from occurring out of finite clauses. On both of these issues, multiple factors have been proposed to play a role. For example, Case Theory predicts that the subject of an embedded nonfinite TP must move to matrix Spec,TP for nominative case and the EPP motivates expletive insertion or CP raising even when case is not at stake. To prevent movement, both the Activity Condition and phases have been invoked (Chomsky, 2000, 2001): nominals that have case are predicted to be unavailable for A-movement and material in the complement of C is predicted to be trapped, each of which rule out A-movement from embedded Spec,TP.

Hyper-raising is an immediate problem for these approaches. The optionality of hyper-raising in languages like Zulu suggests that case assignment is not driving the movement. The role of Activity is also unclear: in Zulu, the hyper-raised DP controls subject agreement in both clauses, indicating that agreement in the lower clause does not rule out subsequent movement and agreement. The hyper-raising pattern also does not conform to the predictions of the Phase Impenetrability Condition (PIC), since A-movement occurs out of the embedded finite CP phase.

Despite these challenges, a number of discussions of hyper-raising patterns attempt to assimilate this type of raising profile to the English-style account sketched above. A crucial assumption for this type of approach is that hyper-raising languages have optionally NOM-deficient TP (Ura, 1994; Ferreira, 2009; Martins & Nunes, 2005; Rodrigues, 2004; Zeller, 2006). Hyper-raising occurs when the NOM-deficient TP appears, while the expletive pattern results when a standard (case-assigning) TP is used.

On a different approach, Diercks (2012) and Carstens & Diercks (2013b) argue that structural case and Activity play no role in A-movement in the Bantu languages, which means that hyper-raising is available. This approach can explain why DPs are *able* to hyper-raise, but it leaves open a number of questions, including what motivates raising in the languages, and what role (if any) phases play.

My goal in this paper is to motivate an account that more easily captures this cross-linguistic variation in raising. I begin by returning to the Zulu pattern we saw in the introduction.

### 3. Zulu: building an account

As we saw in the introduction, Zulu prohibits raising out of nonfinite TPs but has optional raising out of finite CPs. In order to understand why this raising profile emerges in Zulu, we first need to complicate the Zulu pattern even more. Crucially, in addition to optional raising out of CP, Zulu has optional *matrix agreement* with hyper-raised subjects, as in (5c):

- (5) 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>** **ku-** bonakala [ukuthi **t<sub>i</sub>** u- zo- xova ujeqe ]  
 AUG.1Zinhle<sub>i</sub> 17S- seems that t<sub>i</sub> 1S- FUT- make AUG.1steamed.bread  
 ‘It seems that Zinhle will make steamed bread.’

The pattern in (5c) is truly exceptional: elsewhere in Zulu, preverbal subjects *must* control agreement on T (Halpert, 2012, in press). Despite the unexpectedness of the pattern, Halpert (2012, in press) demonstrates that the subject in (5c) nevertheless has the syntactic properties of A-movement. I argue here that this optional agreement in (5c) is the key: it reflects phi-agreement with the embedded CP itself. In particular, I argue that hyper-raising results when matrix T first agrees with the embedded CP, which cannot satisfy the EPP. Once the embedded CP has agreed, it no longer intervenes between the matrix

T and the embedded subject, yielding the observed absence of PIC effects (Rackowski & Richards, 2005). The optional agreement that we see reflects these two steps: the matrix agreement morphology corresponds to either Agree operation. Nonfinite TPs, by contrast, have nominal properties and can satisfy the EPP, which means that a second step of agreement will never occur with a TP complement.

### 3.1. *Ingredients: some key properties of Zulu phi-agreement*

Zulu finite T always bears phi-agreement:<sup>1</sup> T-agreement tracks the subject when it is in Spec,TP or *pro*-dropped (see Buell, 2005; Halpert, 2012, in press), but is an invariable class 15/17 *ku-* when the subject is *vP*-internal:<sup>2</sup>

- (6) a. (**uZinhle**) **u-**/(**\*ku-**) xova ujeqe  
 AUG.1Zinhle 1S-/(\*17S-) make AUG.1steam.bread  
 ‘Zinhle is making steamed bread.’  
 b. (**\*u-**)/**ku-** pheka uZinhle kahle ]*vP*  
 (\*1S-)/17S- cook AUG.1Zinhle well  
 ‘Zinhle cooks well.’

This pattern has led to a number of proposals that phi-agreement on T is directly linked to (and perhaps driven by) the EPP in Bantu (Baker, 2003, 2008; Carstens, 2005; Collins, 2004). In *vP*-internal subject constructions the EPP is satisfied by a *pro* expletive (e.g. Buell, 2005, 2007; du Pessis, 2010), which also appears in constructions with no arguments:<sup>3</sup>

- (7) **ku-** ya- banda  
 17S- YA- be.cold  
 ‘It’s cold.’

Movement to Spec,TP affects the interpretation of the subject (see e.g. Buell, 2005; Cheng & Downing, 2009; Halpert, 2012, in press; Zeller, 2008): *vP*-internal subjects receive focus, while Spec,TP subjects do not (though they can be part of a wide focus interpretation). We can conclude from these patterns that there are two ways to satisfy the EPP in Zulu. Matrix T can either find (via Agree) the closest phi-goal and move it to Spec,TP *or* it can insert an expletive directly.

#### 3.1.1. *What’s the closest phi-goal?*

While we saw above that T can probe DPs for phi-features, I will argue here that TPs and CPs have phi-features too—and that embedded clauses are potential goals for the matrix verb. Turning first to infinitival clauses, we find that in many Bantu languages, infinitival verbs are inflected with noun class morphology (e.g. Creissels & Godard, 2005; du Pessis, 2010). Zulu is no exception: as (8) shows, infinitives in Zulu are marked by the class 15/17 noun class prefix:

- (8) a. **ngi-** funa [ **uku-** xova ujeqe ]      b. **ngi-yethemba** [ **uku-** ni- bona ]  
 1SG- want AUG.15- make AUG.1bread      1SG-hope AUG.15- 2PL.O- see  
 ‘I want to make steamed bread.’      ‘I hope to see you all.’

Infinitives in Zulu truly behave like DP arguments, controlling both subject and object agreement:

- (9) a. **ngi-** ya- **ku-** funa [ **uku-** pheka ]      b. [ **uku-** xova ujeqe ] **ku-** mnanidi  
 1SG- YA- 15O- want AUG.15- cook      AUG.15- make AUG.1bread 15S- nice  
 ‘I want to cook.’      ‘Making steamed bread is nice.’

<sup>1</sup> Agreement is for noun class. Zulu has 15 of 22 Bantu noun classes (1–11, 14–17); even numbers are typically plurals of odd-numbered classes. I mark class 1 subject agreement as 1S, but 1SG for 1st person singular, etc.

<sup>2</sup> The low adverb *kahle* ‘well’ is a reliable marker of the right edge of *vP* (see Buell, 2005; Halpert, 2012, in press).

<sup>3</sup> In Zulu, classes 15 and 17 have become fully morphologically indistinguishable from each other (Buell & de Dreu, 2013). Following convention, I’ll use class 17 for expletive subjects and for CPs, but class 15 for infinitives.

Certain Zulu CPs—including all of the CPs in raising constructions—show similar agreement behavior. Notably, the complementizers of these CPs look like nominalized (class 15/17)<sup>4</sup> verbs:

- (10) a. *-thi* → *ukuthi* (from ‘say’)  
 b. *-dla* → *ukudla* (‘eat’ → ‘to eat’/‘food’)

As with the infinitives, CP complements may optionally control object agreement on the verb:<sup>5</sup>

- (11) *ngi- ya- ku- cabanga* *VP* [*ukuthi uMlungisi u- ya- bhukuda manje*]  
 1SG- YA- 17O- think that AUG.1Mlungisi 1S- YA- swim now  
 ‘I think that Mlungisi is swimming now.’

Object agreement morphology only appears with a true thematic object – and never as a default:

- (12) *ngi- ya- (\*ku-) cabanga*  
 1SG- YA- (\*17O-) think  
 ‘I’m thinking.’

Crucially, CPs are ungrammatical in preverbal subject position in Zulu:<sup>6</sup>

- (13) \* [*ukuthi w- a- thatha umhlala phansi kw- a- ngi- mangaza*]  
 that 1S- PST- take AUG.1sit down 17S- PST- 1SG.O- surprise  
 intended: ‘That he retired surprised me.’

Instead, we find evidence for subject agreement with CPs in complex DP constructions. When a complex DP appears in subject position, T may either have full phi-agreement with the head noun is possible *or* class 15/17 *ku-*:

- (14) [*indaba y-okuthi w- a- thatha umhlala phansi y-/kw- a- ngi- mangaza*]  
 AUG.9news 9ASSOC-that 1S- PST- take AUG.1sit down 9S-/17S- PST- 1SG.O- surprise  
 ‘The news that he retired surprised me.’

This optionality poses a similar problem to the hyper-raising construction: preverbal subjects in all other environments *must* control agreement in Zulu. Halpert (2012, in press) analyzes *ku-* in (14) as an instance of true CP-agreement on the assumption that the CP and nominal components of the complex DP, like appositives, are equidistant from T (e.g. Stowell, 1981; de Vries, 2006; Fitzpatrick, 2002).

To summarize what we learned about Zulu phi-agreement, we first saw that subject agreement is closely linked to the EPP: in most cases, agreeing subjects *must* appear in Spec,TP. We also saw that clauses are phi-goals in Zulu: nonfinite TPs and *ukuthi*-headed CPs both show evidence of controlling subject and object agreement. Finally, we saw that bare CPs cannot appear in Spec,TP in Zulu.

### 3.2. Putting it all together

Returning to the three-way raising alternation that we saw with finite CP complements in (5) above, the initial questions that the pattern raised—why can raising take place out of finite CP in Zulu? why is the raising optional? why is agreement optional?—are joined by a new question: since CPs are goals for agreement, why can the embedded subject *ever* raise/agree?

<sup>4</sup> Class 15 and class 17 are indistinguishable in the modern form of the languages (Buell and de Dreu, 2013); I’ll continue to mark *ku* as class 17 agreement in raising constructions for consistency.

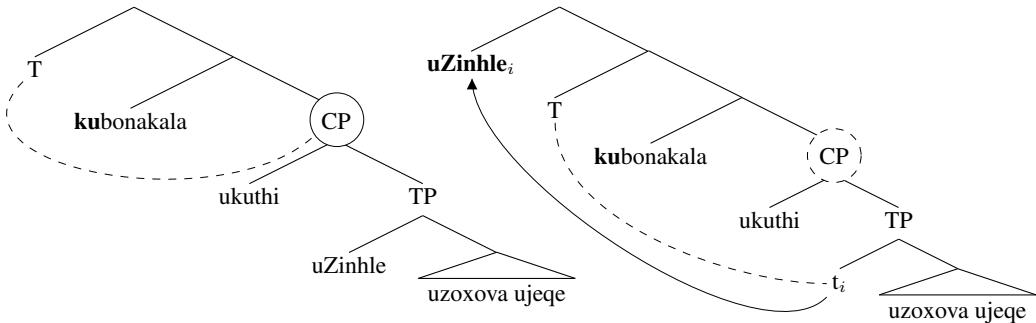
<sup>5</sup> See Halpert (2012) for factors conditioning agreement. The morpheme *ya* in (11a) signals dislocation.

<sup>6</sup> The issue of sentential subjects will return when we consider English. A large body of work has argued that true CP subjects don’t exist (e.g. Emonds, 1976; Koster, 1978; Stowell, 1981; Safir, 1985; Postal, 1998; Alrenga, 2005; Takahashi, 2010; Londahl, 2014), or that CPs in subject position are in fact nominals (e.g. Rosenbaum, 1967; Davies & Dubinsky, 2009; Hartman, 2012).

In particular, the embedded subject in a raising construction is *contained within* a phi-goal CP, yielding an A-over-A configuration (Chomsky, 1964).<sup>7</sup>

Rackowski & Richards (2005) argue that PIC/intervention effects are obviated if a higher head first agrees with *the entire phase* and then continues on to agree with an element *inside* the phase. They use this principle to account for A-bar long-distance *wh*-extraction in Tagalog. We can extend their logic to the A-movement cases involved in Zulu raising constructions. Specifically, the optional agreement with raised subjects reflects the fact that the matrix verb agrees twice (Halpert, 2012, in press):

- (15) **Step 1: T agrees with embedded CP, which must stay in situ**      **Step 2: T agrees with and fronts embedded subject**



The derivation sketched in (15) above raises the question of why matrix T can Agree multiple times in these raising cases. I propose that this pattern results because Agreement in Zulu is driven by the EPP. In particular, we've seen that there are two ways to satisfy the EPP in Zulu. Inserting *pro*<sub>EXPL</sub> directly in Spec,TP results in default *ku*-agreement on T. If T probes, it will find a phi-goal and move it to Spec,TP, as reflected by the phi-agreement with the fronted DP. Recall, though, that Zulu does not permit CPs in Spec,TP, as we saw in (13). We can understand the Zulu pattern as a result of this prohibition: T can *interact* with all phi-bearers, including CPs, but is only *satisfied* a DP (Deal, 2014). When T interacts with an embedded CP, it can agree for phi-features, but remains active since the EPP is not satisfied. Because T is active, it may probe again and can now look *inside* the agreed-with CP to find the embedded subject. Since agreement has happened twice, either morpheme may surface. On this type of account, the Activity Condition and structural case both play no role.

### 3.2.1. A prediction about infinitives

Recall that in addition to hyper-raising, Zulu diverged from the standard raising pattern in another notable respect: nonfinite clauses do not permit raising.

- (16) \* **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>* 1S- (FUT-) make AUG.1steamed.bread  
 'It seems that Zinhle will make bread.'

The ungrammaticality of constructions like (16) is a natural consequence of the proposal developed above. As we saw, Zulu infinitives behave like class 15/17 phi-bearing elements. Unlike CPs, infinitives are fine in Spec,TP and can therefore satisfy the EPP. This difference between nonfinite TPs and CPs means that once matrix T has probed an infinitival clause, we predict that clause itself to satisfy the EPP, meaning that no second Agree operation is necessary.

Overt subjects of Zulu infinitives must be expressed as possessors, ruling out a construction where a nonfinite clause with an overt subject simply moves to Spec,TP (17):

- (17) \* **uZinhle**      uku-(zo)-xova ujeqe]<sub>i</sub>      ku-ya-bonakala *t<sub>i</sub>*  
 AUG.1Zinhle 1S-FUT-make AUG.1steamed.bread 1S-YA-seem  
 intended 'for Zinhle to make steamed bread seems.'

<sup>7</sup> Of which the PIC (Chomsky, 2000) is a subcase, as Picallo (2002) and Rackowski & Richards (2005) argue.

A nonfinite complement clause with a possessor subject *can* appear as matrix subject, as predicted:

- (18) a. uku- (zo)- fika k- ubusika ku-ya-bonakala  
 AUG.15- (FUT)- arrive 15ASSOC- AUG.14winter 15S-YA-seem  
 ‘Winter’s arrival is evident.’/‘We can tell that winter is coming.’  
 b. ? uku- xova ujeqe kukaZinhle ku-ya-bonakala  
 AUG.15- make AUG.1bread 15ASSOC.1Zinhle 15S-YA-seem  
 ‘It’s evident that Zinhle is making steamed bread.’

#### 4. Playing with parameters

We started with the Zulu raising pattern that looked backwards from the familiar English one: raising occurs out of finite CPs but is blocked out of infinitives. I argued that this pattern is a result of which elements are phi-goals in Zulu and how the EPP works. Specifically, we saw that DPs, CPs, and non-finite TPs are all phi-goals that can interact with T. Zulu satisfies the EPP via Agree or expletive insertion, but only DPs and infinitival TPs—and not CPs—are capable of doing so. Given these parameters, we can ask what kind of cross-linguistic variation in subject raising might we expect?

##### 4.1. The other end of the spectrum: Makhuwa

The factors that derive hyper-raising in Zulu can also yield an extremely restricted pattern: no raising at all. I argue in this section that such a pattern can arise from a minimal change to the grammatical properties we saw in Zulu: no EPP. As van der Wal (2009, 2012, 2015) discusses, Makhuwa is typologically unusual in the Bantu family, in that it has rich phi-agreement but no EPP. In Makhuwa, agreeing subjects may stay inside *vP*.<sup>8</sup>

- (19) a. O-hoó-khwá rítthu b. kha-tsi-khum-álé enámá ts-ootéene  
 1S-PERF.DJ-die 1person NEG-10S-exit-PERF.DJ 10animals 10-all  
 ‘Someone died.’ ‘Not all animals came.’ (van der Wal, 2009: ex. 613, 648)

Makhuwa infinitives are also class 15 nominals (van der Wal, 2009) that can control agreement:

- (20) a. O-cáwá w-a Folóra ti w-oóréera  
 15-run 15-CONN 1.Florá COP 15-good  
 ‘Flora’s running is good.’  
 b. Mariá, ócá nráma w-aánáa-réera  
 1Maria 15.eat 3.rice 15S-IMPF-be.good  
 ‘Maria, to eat rice would be good.’ (van der Wal, 2015: fn 21, ex. 57a)

Since agreement always tracks the highest argument—regardless of position—expletive agreement only arises when there are no thematic arguments:

- (21) a. o- náá- ríya b. W-aaní-réera Maríya ó-c-e  
 EXPL.S- PRES- cold EXPL.S-IMPF-be.good 1.Maria 1S-eat-OPT  
 ‘It is cold.’ ‘It would be good if Maria ate.’ (van der Wal 2015: 29b, 57b)

The status of this expletive agreement is unclear: as van der Wal notes, the *o-/w-* paradigm corresponds to a range of noun classes in Makhuwa, including 15 and 17. The standard subordinating complementizer is *wíra*, which, as in Zulu, looks like an infinitive form of *to say* (van der Wal, 2009):

- (22) a. kha-ín-wéha wírá e-háá-vo enámá e-ri-na manyánka  
 NEG.1S-PRES-look.DJ that 9S-stay-LOC 9.animal 9-have.REL 6.horns  
 ‘He didn’t see that there was an animal with horns.’

<sup>8</sup> As van der Wal (2009) shows, the choice of subject position, as in Zulu, is related to information structure.

- b. oo-mánáníhá **wiira** á-vár-e nuńmém nne  
 1S.PERF.DJ-try that 1S-grab-OPT 5.toad 5DEM  
 ‘He tried to get that toad.’

(van der Wal 2009: 429, 430)

Given these properties, the analysis of raising that I developed in the previous section predicts that Makhuwa should not have any raising constructions. The reason for this prediction is that, as in Zulu, all embedded clauses (CPs and infinitival TPs) are phi-goals for matrix T, but without an EPP, there is no distinction to be made between interaction and satisfaction, and thus nothing to impel the second Agree operation that would yield subject raising.

According to van der Wal (2015), this prediction is borne out: Makhuwa lacks raising constructions. For van der Wal, the absence of hyper-raising is linked to the presence of case in Spec-TP in Makhuwa (in contrast to other Bantu languages). A case-based account, however, does not easily rule out raising from nonfinite clauses, since we might expect to find raising there, just as we do in English. On the other hand, Makhuwa *does* allow auxiliary-style raising (with multiple agreement markers), which is surprising if agreement is directly linked to case in the language (and if Activity is invoked to rule out hyper-raising, as on the standard account).

- (23) a. O-hááná a-ki-thél-áka  
 1S-have 1S-1SG.O-marry-DUR  
 ‘He has to marry me.’  
 b. Nléló n-aa-rí ni-hi-ná-tthí ophíya  
 still 1PL.S-PAST-be 1PL-S-NEG-CE-do 15.arrive  
 ‘We still haven’t arrived (yet).’ (van der Wal 2009: 401, 402)

Van der Wal (2015) suggests that these constructions involve a single (case-driven) Agree operation by T. My account also predicts this result: the subject is accessible because there is no higher (clausal) phi-goal. What we learn from Makhuwa, then, is that changing one variable—the EPP—gets us from a permissive-looking raising pattern (Zulu) to an extremely restricted one.

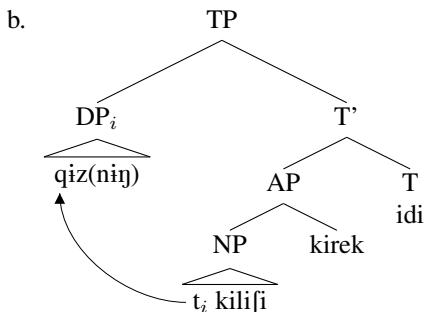
#### 4.2. More EPP-driven raising: Uyghur

Asarina (2011) discusses facts in Uyghur (Turkic) that fit with the emerging picture, though here all embedded clauses are overtly nominalized. Asarina (2011) demonstrates that nominalized complements of adjectival predicates come in two sizes: NP and DP. In particular, non-modal adjectives (and verbal predicates) take a nominalized DP complement clause, while modal adjectives select an NP. Furthermore, Asarina argues that the EPP on T in Uyghur must be satisfied by a DP—and not an NP. The setup is reminiscent of Zulu: embedded clauses of different types vary in their ability to satisfy the EPP.

The result in Uyghur also seems similar to Zulu. When an adjectival predicate embeds an NP-sized clause, the *embedded subject* from inside that clause raises to matrix Spec,TP:

- (24) **Uyghur NP complement: embedded subject raises** (Asarina 2011: ex. 79, 80)

- a. qiz-niŋ<sub>i</sub> [ t<sub>i</sub> kil-ij-i ] kirek i-d-i  
 girl-(GEN) come-NLZ-3.POSS necessary be-PST-3  
 ‘It was necessary for a girl to come.’

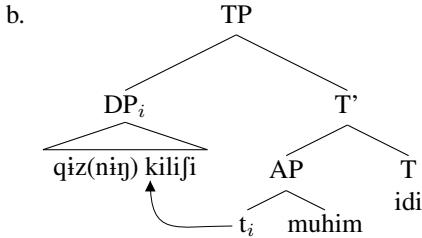


In contrast, when the predicate embeds a nominalized DP clause, the *entire embedded clause* raises:

(25) **Uyghur DP complement: embedded clause raises** (Asarina 2011: ex. 79, 80)

- a. [qiz-niŋ kil-if-i ]<sub>i</sub> t<sub>i</sub> muhim i-d-i  
 girl-(GEN) come-NLZ-3.POSS important be-PST-3

‘It was necessary for a girl to come.’



Again, this pattern is familiar: Uyghur allows hyper-raising when the containing category (NP) cannot *satisfy* T’s EPP. It’s unclear whether Uyghur is like Zulu in that NP can Agree with T (interact) but not move (satisfy), or whether NP is not a goal at all, as Asarina assumes. Either way, the means for escaping the lower clause is clear—and expected, given what we’ve seen in Zulu.

#### 4.3. Further afield: English

Now that we’ve explored some more unusual patterns, we can return to English to see how it fares on this account. Recall the English pattern: raising is required out of infinitives but prohibited out of finite CPs. In standard accounts, phasehood is often invoked to capture this contrast: CP is a phase, but nonfinite TP is not. On my account this difference is recast: given what we’ve seen in Zulu and other languages, we expect that English infinitival TPs are *not* phi-goals but CPs are.

Given the properties of English clauses, this is not an unreasonable assumption. In particular, unlike in Zulu, nonfinite TPs are not nominalized – and don’t show any evidence of nominal properties in situ (e.g. Bresnan, 2001; Roberts & Roussou, 2003:a.o.). Like in Zulu, though, the C used in raising complements is derived from a nominal element: *that* was grammaticalized from – or still is – a demonstrative/relative pronoun (e.g. Davidson, 1967; Roberts & Roussou, 2003; Kayne, 2014). Finally, covert DP structure is available for argument clauses in preverbal position (e.g. Bresnan, 2001; Davies & Dubinsky, 2009; Hartman, 2012), allowing sentential subjects—unlike in Zulu.

Suppose, then, that the nominal properties of C in English allow it to *interact* (in Deal 2014’s sense) with T, just as in Zulu. Hartman (2012) argues that argument CPs in English can acquire covert DP structure—and move to Spec,TP—as a “last resort” if no other suitable goals are present in the search space of T. The result for raising is that once T probes and interacts with the embedded CP, any subsequent EPP-induced probing by T will trigger *movement* of that CP (with added covert DP structure), along the lines of constructions that Hartman (2012) discusses.

CP-raising in English is limited to environments where a DP argument is also permitted:

- (26) a. That the world is round seems likely. (27) a. The world’s roundness seems likely.  
 b. \* That the world is round seems. b. \* The world’s roundness seems.

From this pattern, we can conclude that if the last-resort DP-structure is not permitted, English simply uses the expletive strategy. We therefore see that the differences between Zulu and English can be captured in terms of two parameters. First is the status of nonfinite TPs: in Zulu they act like nominals and therefore will always intervene in a raising environment, while in English they do not and are thus transparent for raising. Second is the strategy for satisfying the EPP when T’s first interaction is with a non-moveable CP. In Zulu, a second probing operation can target the subject inside the Agreed-with CP. In English, a second probing operation triggers added DP structure on the CP, making it moveable. Zulu and English CPs are problematic in the same way—interacting with, but not satisfying, T—but the languages solve the problem differently.

## 5. Conclusion

I proposed that the cross-linguistic differences in raising patterns arise from two types of variation: 1) variation in *parameters*, including presence of EPP and status of clauses as goals for T; and 2) variation in *resolutions*: (how) do you satisfy EPP with a problematic clausal goal?

Analyzing raising in this way allows us to capture a wider range of patterns and gives ways to independently predict what patterns a language will have. An additional consequence is that the work done by the PIC is derivable from properties of clauses in a language. If this proposal is on the right track, we might expect phases to be *relativized* to particular probes—phases for A-movement may not match perfectly with A-bar phases. If CPs are the locus of A-bar features, though, we predict that CPs are generally phases for A-bar movement, with less cross-linguistic variation than for phi-related A-raising.

Another issue that arises from this treatment concerns the phase edge. If we give A-bar movement this treatment, we probably still need the phase edge as an escape route, given the preponderance of evidence that suggests that movement can cross phase boundaries via the edge. The existence of *subject raising* via a CP edge suggests that this strategy may be necessary for A-movement as well (Carstens & Diercks, 2013a; Danckaert & Haegeman, 2014).

Case and Activity played no role in this analysis. In hyper-raising languages, they get in the way – as Carstens (2011), Carstens & Diercks (2013b), Diercks (2012), and others have noted. Case can coexist with this account, however, and arguably forces raising out of nonfinite clauses in English. Activity seems more expendable (along the lines of Nevins, 2004; Bošković, 2007).

## References

- Alrenga, Peter (2005). A sentential subject asymmetry in English and its implications for complement selection. *Syntax* 8:3, 175–207.
- Asarina, Alya (2011). *Case in Uyghur and beyond*. Ph.D. thesis, MIT, Cambridge, MA.
- Baker, Mark (2003). *Lexical Categories*. Cambridge University Press, Cambridge.
- Baker, Mark (2008). *The syntax of agreement and concord*. Cambridge University Press, Cambridge.
- Bošković, Željko (2007). On the locality and motivation of Move and Agree: An even more minimal theory. *Linguistic Inquiry* 38:4, 589–644.
- Bresnan, Joan (2001). *Lexical-Functional Syntax*. Blackwell Publishers.
- Buell, Leston (2005). *Issues in Zulu Morphosyntax*. Ph.D. thesis, UCLA, Los Angeles, CA.
- Buell, Leston (2007). Semantic and formal locatives: Implications for the Bantu locative inversion typology. *SOAS Working Papers in Linguistics* 15, 105–120.
- Buell, Leston & Merijn de Dreu (2013). Subject raising in Zulu and the nature of PredP. *The Linguistic Review* 30:3, 423–466.
- Carstens, Vicki (2005). Agree and EPP in Bantu. *Natural Language and Linguistic Theory* 23:2, 219–279.
- Carstens, Vicki (2011). Hyperactivity and hyperagreement in Bantu. *Lingua* 121:5, 721–741.
- Carstens, Vicki & Michael Diercks (2013a). The great escape: Raising out of finite clauses in Bantu languages. UCSC Colloquium Handout.
- Carstens, Vicki & Michael Diercks (2013b). Parameterizing case and activity: Hyperraising in Bantu. Kan, Seda, Claire Moore-Cantwell & Robert Staubs (eds.), *Proceedings of the 40th Annual Meeting of the North East Linguistic Society*, GLSA, Amherst, MA, 99–118.
- Cheng, Lisa Lai-Shen & Laura J. Downing (2009). Where's the topic in Zulu? *The Linguistic Review* 26, 207–238.
- Chomsky, Noam (1964). A transformational approach to syntax. Fodor, Jerry & Jerry Katz (eds.), *The structure of language*, Prentice Hall, 211–245.
- Chomsky, Noam (2000). Minimalist inquiries: The framework. Martin, Roger, David Michaels & Juan Uriagereka (eds.), *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, MIT Press, 89–156.
- Chomsky, Noam (2001). Derivation by phase. Kenstowicz, Michael (ed.), *Ken Hale: A Life in Linguistics*, MIT Press, Cambridge, MA, 1–52.
- Collins, Chris (2004). The agreement parameter. Breitbarth, Anne & Henk van Riemsdijk (eds.), *Triggers*, Mouton de Gruyter, 115–136.
- Creissels, Denis & Daniele Godard (2005). The Tswana infinitive as a mixed category. Müller, Stefan (ed.), *Proceedings of the 12th International Conference on Head-Driven Phrase Structure Grammar*, 70–90.
- Danckaert, Lieven & Liliane Haegeman (2014). Syntacticizing blends: the case of English *wh*-raising. *Lingbuzz/002402*.

- Davidson, Donald (1967). The logical form of action sentences. Rescher, Nicholas (ed.), *The Logic of Decision and Action*, Pittsburgh University Press, Pittsburgh, 81–95.
- Davies, William D. & Stanley Dubinsky (2009). On the existence (and distribution) of sentential subjects. Gerdtz, Donna, John Moore & Maria Polinsky (eds.), *Hypothesis A/Hypothesis B. Linguistic Explorations in Honor of David M. Perlmutter*, MIT Press, 111–128.
- Deal, Amy Rose (2014). Properties of probes: evidence from Nez Perce complementizer agreement. NELS 45 handout, <http://people.ucsc.edu/~ardeal/papers/ard-C-agr-NELS.pdf>.
- Diercks, Michael (2012). Parameterizing case: Evidence from Bantu. *Syntax* 15:3.
- Emonds, Joseph E. (1976). *A Transformational Approach to English Syntax*. Academic Press, New York.
- Ferreira, Marcelo (2009). Null subjects and finite control in Brazilian Portuguese. Nunes, Jairo (ed.), *Minimalist essays on Brazilian Portuguese syntax*, John Benjamins.
- Fitzpatrick, Justin M. (2002). On minimalist approaches to the locality of movement. *Linguistic Inquiry* 33:3, 443–463.
- Halpert, Claire (2012). *Argument licensing and agreement in Zulu*. Ph.D. thesis, MIT.
- Halpert, Claire (in press). *Argument licensing and agreement*. Oxford University Press, New York.
- Hartman, Jeremy (2012). *Varieties of clausal complementation*. Ph.D. thesis, MIT, Cambridge, MA.
- Kayne, Richard (2014). Why isn't *this* a complementizer? Svenonius, Peter (ed.), *Functional Structure from Top to Toe: The Cartography of Syntactic Structures*, Oxford University Press, vol. 9, 188–231.
- Koster, Jan (1978). Why subject sentences don't exist. Keyser, Samuel Jay (ed.), *Recent Transformational Studies in European Languages*, MIT Press, Cambridge, Massachusetts.
- Londahl, Terje (2014). Sentential subjects: topics or real subjects. Santana-LaBarge, Robert E. (ed.), *Proceedings of WCCFL 31*, Cascadilla Proceedings Project, Somerville, MA, 315–324.
- Martins, Ana Maria & Jairo Nunes (2005). Raising issues in Brazilian and European Portuguese. *Journal of Portuguese Linguistics* 4:2, 53–77.
- Nevins, Andrew (2004). Derivations without the Activity Condition. McGinnis, Martha & Norvin Richards (eds.), *Perspectives on Phases*, MIT Working Papers in Linguistics, 287–310.
- du Pessis, Jacobus A. (2010). The expletive in the African languages of South Africa. Stellenbosch University.
- Picallo, M. Carme (2002). Abstract agreement and clausal arguments. *Syntax* 5:2, 116–147.
- Postal, Paul (1970). On coreferential complement subject deletion. *Linguistic Inquiry* 1, 439–500.
- Postal, Paul (1974). *On raising*. MIT Press, Cambridge, Massachusetts.
- Postal, Paul M. (1998). *Three Investigations of Extraction*. The MIT Press, Cambridge.
- Rackowski, Andrea & Norvin Richards (2005). Phase edge and extraction: A Tagalog case study. *Linguistic Inquiry* 36:4, 565–599.
- Roberts, Ian & Anna Roussou (2003). *Syntactic Change: A minimalist approach to grammaticalisation*. Cambridge University Press, Cambridge.
- Rodrigues, Cilene (2004). *Impoverished morphology and A-movement out of case domains*. Ph.D. thesis, University of Maryland, College Park, MD.
- Rosenbaum, Peter S. (1967). *The grammar of English predicate complement constructions*. MIT Press, Cambridge, MA.
- Safir, Kenneth (1985). *Syntactic chains*. Cambridge University Press, Cambridge.
- Stowell, Timothy (1981). *Origins of Phrase Structure*. Ph.D. thesis, MIT.
- Takahashi, Shoichi (2010). The hidden side of clausal complements. *Natural Language and Linguistic Theory* 28, 343–380.
- Ura, Hiroyuki (1994). *Varieties of raising and the feature-based bare phrase structure theory*. Ph.D. thesis, MIT.
- de Vries, Mark (2006). The syntax of appositive relativization: On specifying coordination, false free relatives, and promotion. *Linguistic Inquiry* 37:2, 229–270.
- van der Wal, Jenneke (2009). *Word order and information structure in Makhuwa-Enahara*. Ph.D. thesis, Universiteit Leiden.
- van der Wal, Jenneke (2012). Subject agreement and the EPP in Bantu agreeing inversion. *Cambridge Occasional Papers in Linguistics* 6, 201–236.
- van der Wal, Jenneke (2015). Evidence for abstract Case in Bantu. Ms. University of Cambridge, <http://recos-dtal.mml.cam.ac.uk/papers/drafts-submitted-manuscripts>.
- Zeller, Jochen (2006). Raising out of finite CP in Nguni: the case of *fanele*. *Southern African Linguistics and Applied Language Studies* 24:3, 255–275.
- Zeller, Jochen (2008). The subject marker in Bantu as an antifocus marker. *Stellenbosch Papers in Linguistics* 38, 221–254.

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