

Clause size and transparency in Ndebele*

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1 Introduction

- Crosslinguistic evidence supports the hypothesis that subjunctive and indicative clauses differ in size:
 - Indicative clauses have a rich left periphery
 - Subjunctive clauses are structurally reduced/deficient

(1) Asymmetries between indicative and subjunctive clauses in Ndebele:

	Indicative	Subjunctive
Negation	High	Low
Class 1 agreement	<i>u-</i>	<i>a-</i>
Subject in focus?	*	✓
Augmentless subject?	*	✓

- Ndebele provides evidence that the asymmetries between subjunctive and indicative clauses are a direct consequence of clause size, not clause type.

Proposal:

- Morphosyntactic asymmetries between indicative and subjunctive clauses are not selected properties, but the result of **reduced periphery**
- Reduced periphery is due to either:
 - base generation, or
 - derivational deletion
- Evidence: clause size variability (relative clauses)

(2) Indicative and subjunctive periphery in Ndebele

- a. indicative: [C [Σ [Top_φ [T_φ [Neg [V ...]]]]]]
- b. subjunctive: [C [T_φ [Neg [V ...]]]]

PLAN:

1. Indicative and subjunctive CPs: four asymmetries
2. Analysis: reduced periphery of subjunctive clauses
3. Clause size variability: relative clauses
4. Remaining issue: high topic intervention
5. Conclusion

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2 Indicative and subjunctive CPs: four asymmetries

- The selection of subjunctive or indicative clausal complement is a property of the matrix predicate:
 - *think* selects indicative CPs
 - *wish* selects subjunctive CPs
- both clause types are finite, and are introduced by the complementizer *ukuthi*

2.1 Position of negation

- The two clause types employ different negation markers (see also Yuan (2016) for similar asymmetries in another Bantu language, Kikuyu)

- | | |
|---------------------------------------|---------------------------------------|
| (3) <i>indicative</i> : high negation | (4) <i>subjunctive</i> : low negation |
| ... u-kuthi a- ngi -pheki. | ... u-kuthi ngi-nga -pheki. |
| ... ag-comp NEG-1sg-cook.IND | ... ag-comp 1sg-NEG-cook.SBJ |
| ‘... that I don’t cook’ | ‘... (so) that I don’t cook’ |

2.2 Possibility of subject focus

- Preverbal subject in Bantu are typically topical, and cannot be in narrow focus (Bresnan & Mchombo, 1987; Letsholo, 2002; Baker, 2003; Henderson, 2006; Schneider-Zioga, 2000, 2007).
- In Ndebele, this generalization is true in indicative, but not in subjunctive clauses.

- (5) WH-phrases (necessarily in focus):
- | | |
|--|---------------------------------|
| a. *Ucabanga ukuthi ubani u-za-buya.
think.2sg COMP 1 1S-FUT-come.IND
(‘Who do you think will come?’) | <i>indicative</i> : *wh-subject |
|--|---------------------------------|

- | | |
|---|-----------------------------------|
| b. Ufisa ukuthi ubani a-buye.
wish.2sg COMP 1who 1S-come.SBJV
(‘Who do you hope comes?’) | <i>subjunctive</i> : ✓ wh-subject |
|---|-----------------------------------|

- (6) DPs associated with the focus particle *kuphela* ‘only’:

- | | |
|--|------------------------------|
| a. *Ngicabanga ukuthi uZodwa kuphela u-za-buya.
think.1sg COMP 1Zodwa only 1S-FUT-come.IND
(‘I think only Zodwa will come’) | <i>indicative</i> : *ONLY-DP |
|--|------------------------------|

- | | |
|--|--------------------------------|
| b. Ngifisa ukuthi uZodwa kuphela a-buye.
wish.1sg COMP 1Zodwa only 1S-come.SBJV
(‘I hope only Zodwa comes’) | <i>subjunctive</i> : ✓ ONLY-DP |
|--|--------------------------------|

2.3 Agreement morphology

- Agreement prefix with class 1 subjects shows allomorphy depending on mood:
 - Indicative clauses: **u-**
 - Subjunctive clauses: **a-**

- (7) a. Ngicabanga ukuthi **u-**za-buya. *indicative*
 think.1sg COMP 1S-FUT-come.IND
 ‘I think she will come.’
- b. Ngifisa ukuthi **a-**buye. *subjunctive*
 wish.1sg COMP 1S-come.SBJV
 ‘I hope she comes.’

2.4 Augmentless subjects

- Assumption: the absence of an augment vowel → structural case (Halpert, 2012)
 - Indicative clauses: subjects must have an augment (no structural case)
 - Subjunctive clauses: subjects can be augmentless (✓ structural case)

- (8) Augment drop: (**u**)-*mama* ‘mother’:
- a. Angifisi kuthi mama a-suke. *subjunctive*: ✓ augment drop
 wish.1sg.NEG COMP 1mother 1S-leave.SBJ
 ‘I don’t wish for mom to leave’
- b. Angicabangi kuthi *(u)-mama u-za-suka. *indicative*: *augment drop
 think.1sg.NEG COMP aug-1mother 1-FUT-leave.IND
 ‘I don’t think mom will leave’

3 Analysis: reduced periphery of subjunctive clauses

- (9) Proposal:
- a. *Indicative clause periphery*: [CP [ΣP [TopP_φ [TP_φ]]]]]
- b. *Subjunctive clause periphery*: [CP [TP_φ]]]

3.1 Position of negation

- Indicative clauses project a polarity phrase: ΣP, which hosts the high-negation prefix **a-**.
- Subjunctive clauses lack this layer – negation must be low (NegP)

- (10) Ngifisa ukuthi ✓ba-nga-buyi/*a-ba-buyi. *subjunctive*: low negation
 wish.1sg COMP 2pl-NEG-come/*NEG-2sg-come
 ‘I hope they are not coming’

subjunctive: [C [T [Neg **neg** [v ...]]]]

- (11) Ngicabanga ukuthi \checkmark **a**-ba-buyi/*ba-**nga**-buyi. *indicative: high negation*
 think.1sg COMP NEG-2pl-come/*2pl-NEG-come
 ‘I think they are not coming’

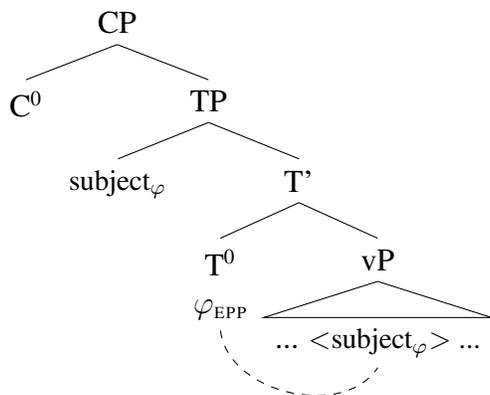
indicative: [C [Σ **a-** [Top [T [Neg ∅ [v ...]]]]]]

3.2 Possibility of subject focus

FACTS: Subjects of subjunctive clauses can be in focus; subjects of indicative clauses cannot.

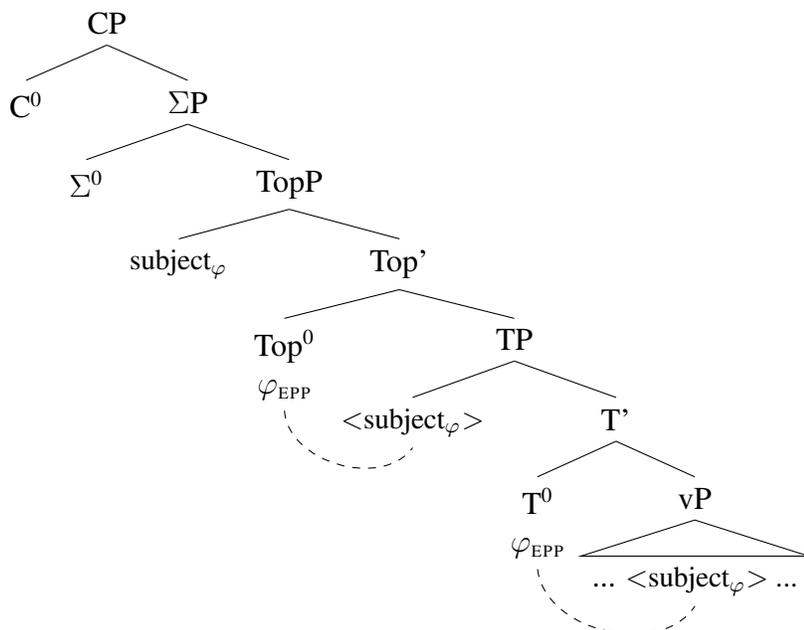
- Subjunctive clauses: only one agreeing head – T_φ
- Indicative clauses: two agreeing heads – T_φ and Top_φ

- (12) Subjunctive: subject movement to Spec,TP



φ_{EPP}: φ-agreement requires movement in Bantu: (Carstens, 2005)

- (13) Indicative: subject movement to Spec,TP and Spec,TopP



- TopP probes for the closest φ -goal \Rightarrow **it will always attract the subject** (Bliss & Storoshenko, 2009)
- Thus, subjects are always topical in indicative clauses, and cannot be in narrow focus.
- Subjunctive clauses lack an agreeing Top⁰ head \rightarrow subjects are not necessarily topical in subjunctive clauses.

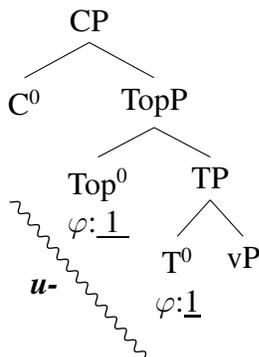
3.3 Agreement morphology

- The allomorphy in class 1 agreement prefix, namely
 - Subjunctive: *a-*
 - Indicative: *u-*

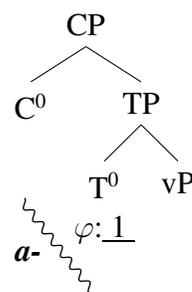
is a consequence of the difference in agreement probes:¹

- Agreement with T⁰: $[\varphi:1] \leftrightarrow a-$
- Agreement with T⁰ and Top⁰: $[\varphi:1] \leftrightarrow u-$

(14) a. Indicative



b. Subjunctive



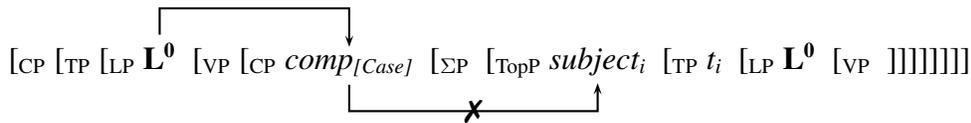
3.4 Case licensing

- The distribution of augmentless nominals in Ndebele matches the distribution found in Zulu. Namely, augmentless nouns appear:
 - in scope of negation, and
 - in a post-verbal argument position
- Thus, objects can be augmentless, but preverbal subjects cannot (15). This is true in both indicative (15-a) and subjunctive clauses (15-b).

¹ For a similar analysis of subject agreement in Bemba see Henderson (2013), where agreement with two heads (for him T and C) results in a single agreement prefix (anti-agreement). I leave it open how the two probes end up spelled-out as a single affix (the possibilities include contextual allomorphy, fusion/spanning, lowering and impoverishment).

- By assumption, all left-peripheral XPs are phases (Müller, 2010)

(20) Case licensing in indicative clauses (17-b)



IN SUM:

- C⁰ can get case in either clause type
- but embedded subject licensing relies on a reduced periphery (a property of subjunctive, but not indicative clauses)

4 Clause size variability: relative clauses

- previous sections have shown differences between indicative and subjunctive clauses, summarized in (21), and were argued to stem from a different make-up of their periphery.

	Indicative	Subjunctive
(21) 1. Position of negation	High	Low
2. Class 1 agreement	<i>u-</i>	<i>a-</i>
3. Subjects in narrow focus	*	✓
4. Subjects with structural case	*	✓

- **Proposal:** The properties of subjunctive clauses are **reduced-periphery effects**
- **Alternative:** the asymmetries are directly related to clause *type* (e.g. [φ :1] ↔ *a-/* — SBJV)
- **Evidence** that these asymmetries are specific to clause size, not clause type, comes from relative clauses:
 - they are indicative but show some properties of subjunctive clauses
 - clause size variability *within* a single clause type (SBJ vs OBJ relatives) results in mixed properties.

(22) Mixed properties of relative clauses

	Local subject extraction	Other extraction
1. Position of negation	Low	Low
2. Class 1 agreement	<i>u-</i>	<i>a-</i>
3. Subjects in narrow focus	NA	✓
4. Subjects with structural case	*	*

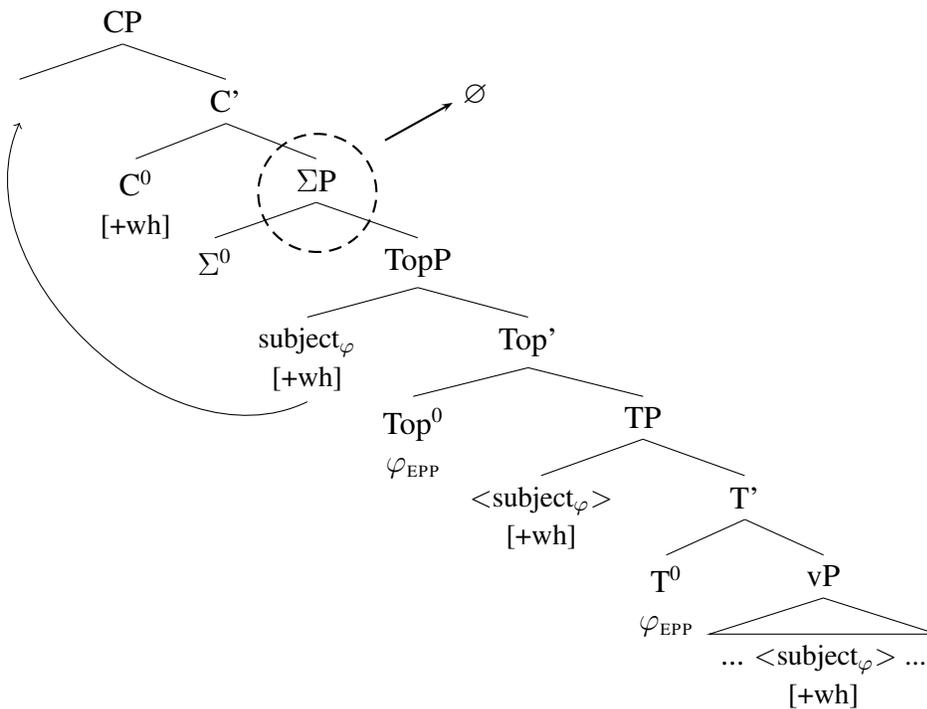
4.1 Analysis: movement-triggered deletion

- Relative clauses in Ndebele are indicative
- Thus, they project the full indicative CP: [CP [ΣP [TopP_φ [TP_φ]]]]]

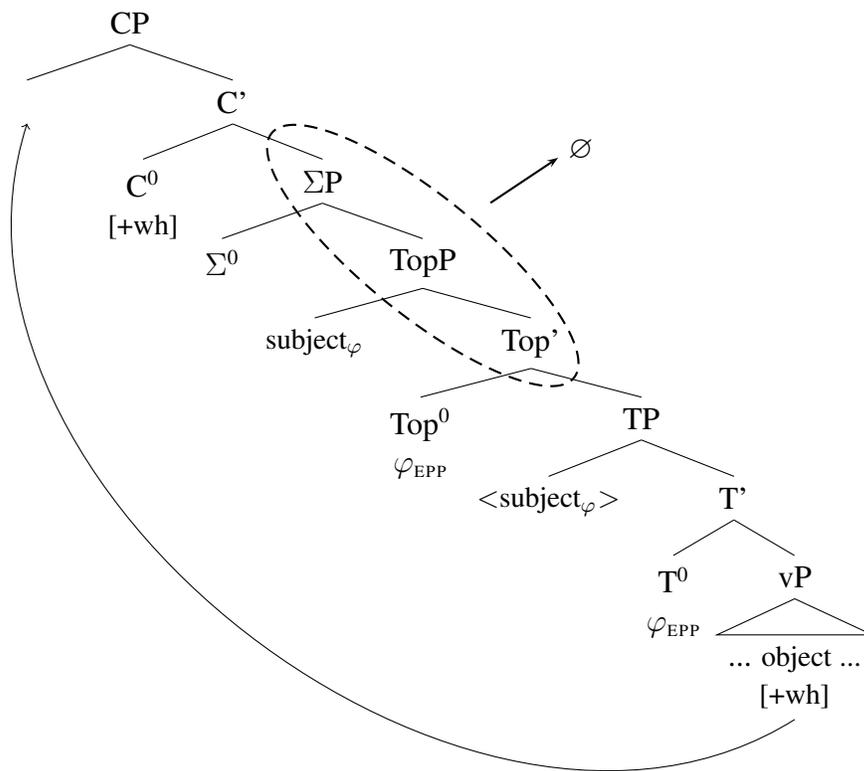
- One difference is that the complementizer is null and has no φ -features (Pietraszko, 2016)
- Assumption (from above): all left-peripheral XPs are phases (TopP, Σ P, CP).
- Phasal XPs in the left periphery are barriers for A-bar movement involved in relativization
- **Movement-triggered Structure Deletion** (Pesetsky's (2016) "Exfoliation"):
 - *Structural Description*: [_{WP} ... β ... [_{YP} ... [_{γ P} ... α ...]], where YP is a phase, and γ P is not a phase.
 - *Structural Change*: Replace YP with γ P
 - *Last Resort Property*: Applies only if necessary to enable Merge(β, α) without violating Phase Impenetrability

⇒ In other words: phasal XPs are deleted to enable movement.

(23) Subject extraction: Σ P deletion



(24) Object extraction: TopP and ΣP deletion



4.2 Deriving reduced-periphery effects in RCs

Due to deletion of different chunks of structure, subject and object relatives show mixed properties, as discussed below.

4.2.1 Negation

ΣP is deleted in both object and subject extraction → neither type of RC allows high negation (25)

(25) Low negation in relative clauses

- a. umfana a- u- nga- si- dliyo isinkwa subject relative
 1boy ASSOC- 1S- neg- 7o- ate 7bread
 ‘the boy who didn’t the bread’

- b. isinkwa a- a- nga- si- dliyo object relative
 7bread ASSOC- 1S- neg- 7o- ate
 ‘the bread that he didn’t eat’

4.2.2 Agreement morphology

- As we see in (25), class 1 agreement prefix shows allomorphy in relative clauses, depending on what is extracted:
 - subject movement to TopP (triggering the *u-* agreement) is possible in subject relatives
 - in object relatives, TopP is deleted, in which case only the lower agreement probe (on T) is pronounced
 - overt subjects in object relatives are pronunciations on the lower copy (in Spec, TP).
- Thus, deletion of different chunks of structure lead to the following correlations, as far as agreement morphology:
 - subject relatives pattern with indicative clauses (*u-*)
 - object relatives pattern with subjunctive clauses (*a-*)
- It is worth noting that the agreement asymmetry in relative clauses has the distribution of anti-agreement (or that-trace) effects, namely
 - local subject extraction: exponent X
 - any other extraction: exponent Y
- Interestingly, simple indicative clauses employ exponent X in Ndebele (*u-*). That is: what we think of as the regular class 1 prefix, is actually the anti-agreement prefix.

4.2.3 Subject focus

- In object relatives, the overt subject of the RCs is the lower copy in Spec,TP (TopP is deleted).
- As expected, RCs internal subjects behave like subjunctive subjects: being in Spec,TP, they are not restricted to topic interpretations and may be in focus (26).

(26) Leye y-inyama [_{rel-clause} *umama kuphela* a- a- yi- phékileyo.]
 9DEM COP-9meat 1mother only ASSOC- 1s- 9o- cook.PST.REL
 ‘This is the meat that only mom cooked.’

- Thus, the possibility of focused subjects does not diagnose indicative vs subjunctive clause types, but rather clause size (presence or absence of TopP). The absence of TopP happens to be a property of subjunctive clauses and object relatives (which are otherwise indicative).

4.2.4 Case licensing

Neither type of relative clause allows licensing of augmentless subjects. This is likely an independent property of the relative C, which does not show nominal behavior and is perhaps not a potential target for structural case.

5 Remaining issue: high topic intervention

- In addition to the low, agreeing Top head, Ndebele periphery may optionally contain high topics, which, by assumption, are base-generated right below C.
- High topics may appear freely in indicative clauses

- However, they are restricted in subjunctive and relative clauses
 - In subjunctive clauses: they are allowed but they block case licensing to a subject by C (27).
 - In relative clauses: they are impossible (28)

(27) Angifisi [CP_{subj} kuthi **kusasa** *(u)-mama a-suke]. *subjunctive*
 wish.1sg.NEG COMP tomorrow 1aug-1mother 1S-leave.SBJ
 ‘I don’t wish for mom to leave tomorrow’

(28) umfana [RC (***kusasa**) o-za-suka]. *relative clause*
 1boy tomorrow 1rel-FUT-leave
 (‘the boy who is leaving tomorrow’)

- These facts are perhaps not surprising under the analysis proposed here
 - Subjunctive clauses: As a left-peripheral XP, a high topic is a phase, and creates the same opacity for case licensing as we find in indicative clauses.
 - Relative clauses: Since RCs involve movement, high topics will always be deleted, whatever is extracted.

6 Conclusion

- According to the proposal made here, the morphosyntactic asymmetries between indicative and subjunctive clauses do not diagnose clause type;
- they diagnose the presence or absence of particular chunks of structure,
- which may vary *across and within* clause types.
- Evidence for the reduced-periphery view of those asymmetries come from relative clauses:
 - they are indicative, and yet they share some properties with subjunctive clauses
 - they show that those properties may vary *within* a single clause type, depending how much structure undergoes deletion.
- An interesting conclusion emerges about the presence of anti-agreement effects in Ndebele
 - Since local subject extraction triggers the same agreement prefix as indicative clauses, Ndebele is not usually described as having anti-agreement (as opposed to some other Bantu languages, such as Kinande (Schneider-Zioga, 2007)), Bemba (Cheng, 2006; Henderson, 2013) or Lubukusu (Diercks, 2009).
 - In the analysis developed here, the anti-agreement prefix occurs whenever Top_φ is present,
 - which is a common property of local-subject relatives and indicative clauses.

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