An argument for true c-selection in clausal complementation

Asia Pietraszko

University of Rochester

The Brussels Conference on Generative Linguistics 13

Dec 18, 2020

Is c-selection a necessary part of the theory of complementation?

What's the division of labor between syntax and semantics in clause selection?

(Grimshaw 1979, 1981; Pesetsky 1982, 1991; Pollard & Sag 1987; Larson et al. 1997; Odijk 1997; Moulton 2009; Roussou 2010; Kastner 2015, among many others)

Option 1: Clause selection targets syntactic features only
Option 2: Clause selection targets semantic features only
Option 3: Clause selection targets both syntactic and semantic features

Is c-selection a necessary part of the theory of complementation?

What's the division of labor between syntax and semantics in clause selection?

(Grimshaw 1979, 1981; Pesetsky 1982, 1991; Pollard & Sag 1987; Larson et al. 1997; Odijk 1997; Moulton 2009; Roussou 2010; Kastner 2015, among others)

Option 1: Clause selection targets syntactic features only
Option 2: Clause selection targets semantic features only
Option 3: Clause selection targets both syntactic and semantic features

Selection patterns in Ndebele (Bantu, Zimbabwe) show us that:

- Options 1 and 2 are inadequate.
- Syntactic selection targets only category features.

➛ C-selection is a necessary part of the theory of complementation.

Four types of clause-like complements in Ndebele

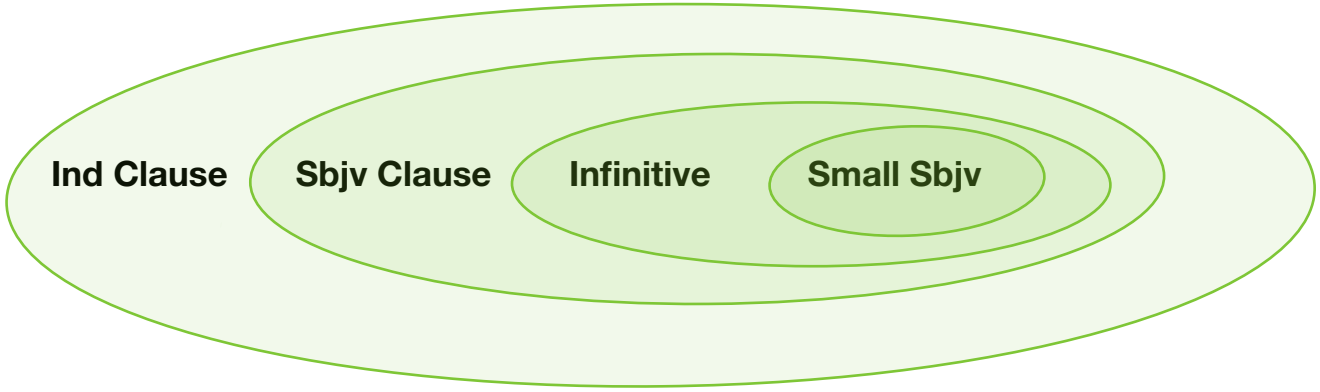
(1) a. Ngi-za-mane [(*ukuthi) ngi-pheke.] Small Sbjv
1sg-FUT-simply (*COMP) 1sg-cook.SBJV
'I will simply cook'

b. Ng-a-jayela [(*ukuthi) uku-pheka.] Infinitive
1sg-PST-usually (*COMP) INF-cook
'I used to cook'

c. Ngi-funa [ukuthi ngi-pheke.] Sbjv Clause
1sg-want COMP 1sg-cook.SBJV
'I want to cook'

d. Ngi-cabanga [ukuthi ba-a-pheka.] Ind Clause
1sg-think COMP 2-PST-cook.IND
'I think that they cooked'

The 4 complement types differ in size



Syntactically opaque ⟷ Syntactically permeable

Temporally independent ⟷ Temporally integrated

Permeability for A-movement

(2) Isuphu$_i$ i-man-é [i-phek-w-e t_i.] Small Sbjv
9soup 9s-simply 9s-cook-PSV-SBJV
'The soup was simply cooked'

(3) Isuphu$_i$ i-fun-w-a [uku-phek-w-a t_i.] Infinitive
9soup 9s-want-PSV-FV INF-cook-PSV-FV
'Someone wants to cook the soup'
(Lit. The soup is wanted to be cooked)

(4) Isuphu$_i$ i-fun-w-a [ukuthi i-phek-w-e t_i.] Sbjv Clause
9soup 9s-want-PSV-FV COMP 9s-cook-PSV-SBJV
'Someone wants to cook the soup'
(Lit. The soup is wanted that it be cooked)

(5) *Isuphu$_i$ i-catshang-w-a [ukuthi i-phek-iw-e t_i.] Ind Clause
9soup 9s-think-PSV-FV COMP 9s-cook-PSV-PST
'The soup is thought to have been cooked'

Permeability for A-movement

(2) Isuphu$_i$ i-man-é [i-phek-w-e t_i.] — Small Sbjv

9soup 9s-simply 9s-cook-PSV-SBJV

'The soup was simply cooked'

(3) Isuphu$_i$ i-fun-w-a [uku-phek-w-a t_i.] — Infinitive

9soup 9s-want-PSV-FV INF-cook-PSV-FV

'Someone wants to cook the soup'

(Lit. The soup is wanted to be cooked)

(4) Isuphu$_i$ i-fun-w-a [ukuthi i-phek-w-e t_i.] — Sbjv Clause

9soup 9s-want-PSV-FV COMP 9s-cook-PSV-SBJV

'Someone wants to cook the soup'

(Lit. The soup is wanted that it be cooked)

(5) *Isuphu$_i$ i-catshang-w-a [ukuthi i-phek-iw-e t_i.] — Ind Clause

9soup 9s-think-PSV-FV COMP 9s-cook-PSV-PST

'The soup is thought to have been cooked'

Obligatory argument sharing (raising/control)

(6) UZodwa u-mane [(*uJoni) a-pheke.] Small Sbjv
1Zodwa 1s-simply (*1John) 1s-cook.SBJV
'Zodwa simply cooks'

(7) UZodwa u-funa [(*uJoni) uku-pheka.] Infinitive
1Zodwa 1s-want (*1John) INF-cook
'Zodwa wants to cook'

(8) UZodwa u-funa [ukuthi uJoni a-pheke.] Sbjv Clause
1Zodwa 1s-want COMP 1John 1s-cook.SBJV
'Zodwa wants John to cook'

(9) UZodwa u-cabanga [ukuthi uJoni u-phek-ile.] Ind Clause
1Zodwa 1s-think COMP 1John 1s-cook-PST
'Zodwa thinks that John cooked'

Obligatory argument sharing (raising/control)

(6) UZodwa u-mane [(*uJoni) a-pheke.] Small Sbjv ✓
1Zodwa 1s-simply (*1John) 1s-cook.SBJV
'Zodwa simply cooks'

(7) UZodwa u-funa [(*uJoni) uku-pheka.] Infinitive ✓
1Zodwa 1s-want (*1John) INF-cook
'Zodwa wants to cook'

(8) UZodwa u-funa [ukuthi uJoni a-pheke.] Sbjv Clause ✗
1Zodwa 1s-want COMP 1John 1s-cook.SBJV
'Zodwa wants John to cook'

(9) UZodwa u-cabanga [ukuthi uJoni u-phek-ile.] Ind Clause ✗
1Zodwa 1s-think COMP 1John 1s-cook-PST
'Zodwa thinks that John cooked'

Morphological tense agreement

(10) a. Ngi-phinda [ngi-pheke.] Small Sbjv ✓
1sg-again.PRES 1sg-cook.SBJV
'I'm cooking again'

b. Ngi-phind-é [nga-phéka /*ngi-pheke.]
1sg-again-PST 1sg-cook.PST.SBJV /*1sg-cook.SBJV
'I cooked again'

Morphological tense agreement

(10) a. Ngi-phinda [ngi-pheke.] Small Sbjv ✓
1sg-again.PRES 1sg-cook.SBJV
'I'm cooking again'

b. Ngi-phind-é [nga-phéka /*ngi-pheke.]
1sg-again-PST 1sg-cook.PST.SBJV /*1sg-cook.SBJV
'I cooked again'

(11) Ngi-phind-é [uku-pheka /*uku-phek-ile /*uku-a-pheka.] Infinitive ✗
1sg-again-PST INF-cook /*INF-cook-REC.PST /*INF-DIST.PST-cook
'I cooked again'

(12) Ngi-phind-é [ukuthi ngi-pheke /*nga-phéka.] Sbjv Clause ✗
1sg-again-PST COMP 1sg-cook.SBJV /*1sg-cook.PST.SBJV
'I cooked again'

(13) Ngi-th-é [ukuthi ngi-ya-pheka /ngi-phek-ile.] Ind Clause ✗
1sg-say-PST COMP 1sg-PRES-cook /1sg-cook-PST
'I said that I cooked/cook'

Embedded T ≺ Matrix T

(14) Ngi-mane [ngi-pheke (**#izolo**).] Small Sbjv 
1sg-simply.PRES 1sg-cook.SBJV (**#yesterday**)
'I simply cook (#yesterday)'

(15) Ngi-funa [uku-be ngi-phek-ile (**#izolo**).] Infinitive 
1sg-want-PRES INF-AUX 1sg-cook-PERF (**#yesterday**)
'I want to have cooked (yesterday)'

(16) Ngi-funa [ukuthi u-be u-phek-ile (**#izolo**).] Sbjv Clause 
1sg-want-PRES COMP 2sg-AUX 2sg-cook-PERF (**#yesterday**)
'I want you to have cooked (yesterday)'

(17) Ngi-cabanga [ukuthi u-phek-ile **izolo**.] Ind Clause 
1sg-think-PRES COMP 2sg-cook-PST **yesterday**
'I think that you cooked yesterday'

Matrix T ≺ Embedded T

(18) Ngi-phind-é nga-phéka (#**kusasa**). — Small Sbjv ✗
1sg-again.PST 1sg-cook.PST.SBJV (#**tomorrow**)
'I cooked again (#tomorrow)'

(19) Ngi-a-funa uku-pheka **kusasa**. — Infinitive ✓
1sg-PST-want INF-cook **tomorrow**
'I wanted to cook tomorrow'

(20) Ngi-a-funa ukuthi u-phek-e **kusasa**. — Sbjv Clause ✓
1sg-PST-want COMP 1sg-cook-SBJV **tomorrow**
'I wanted to cook tomorrow'

(21) Ngi-a-cabanga ukuthi ngi-za-pheka **kusasa**. — Ind Clause ✓
1sg-PST-think COMP 1sg-FUT-cook **tomorrow**
'I thought that I would cook tomorrow'

Syntactic opacity

	Small SBJV	Infinitive	SBJV Clause	IND Clause
Permeable to A-movement?	✓	✓	✓	✗
Requires argument sharing?	✓	✓	✗	✗
Permeable to tense agreement?	✓	✗	✗	✗

Temporal independence

	Small SBJV	Infinitive	SBJV Clause	IND Clause
Matrix T $\prec$ Embedded T	✗	✓	✓	✓
Embedded T $\prec$ Matrix T	✗	✗	✗	✓

Syntactic opacity

	Small SBJV	Infinitive	SBJV Clause	IND Clause
Permeable to A-movement?	✓	✓	✓	✗
Requires argument sharing?	✓	✓	✗	✗
Permeable to tense agreement?	✓	✗	✗	✗

Temporal independence

	Small SBJV	Infinitive	SBJV Clause	IND Clause
Matrix T $\prec$ Embedded T	✗	✓	✓	✓
Embedded T $\prec$ Matrix T	✗	✗	✗	✓

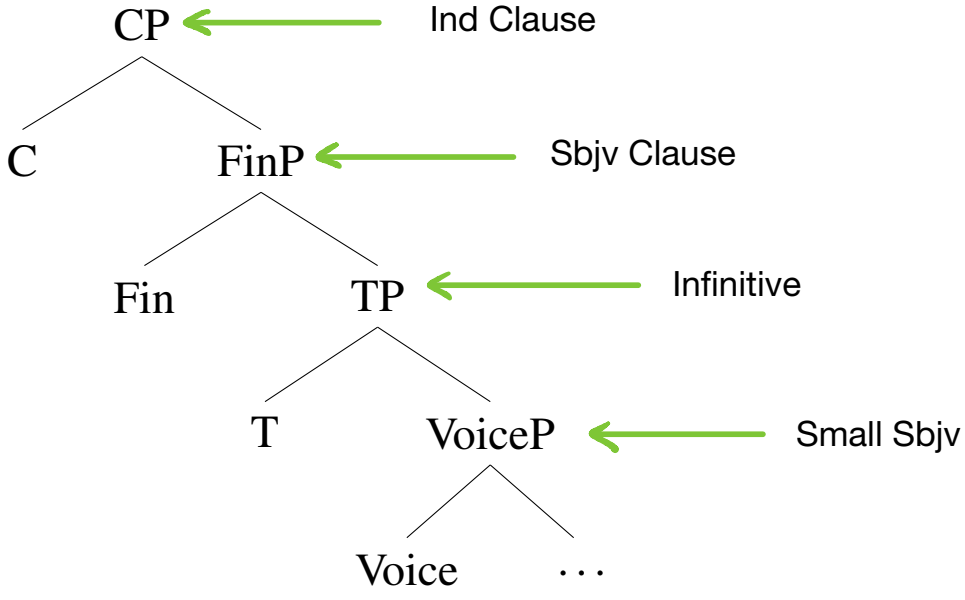
tenseless → Event

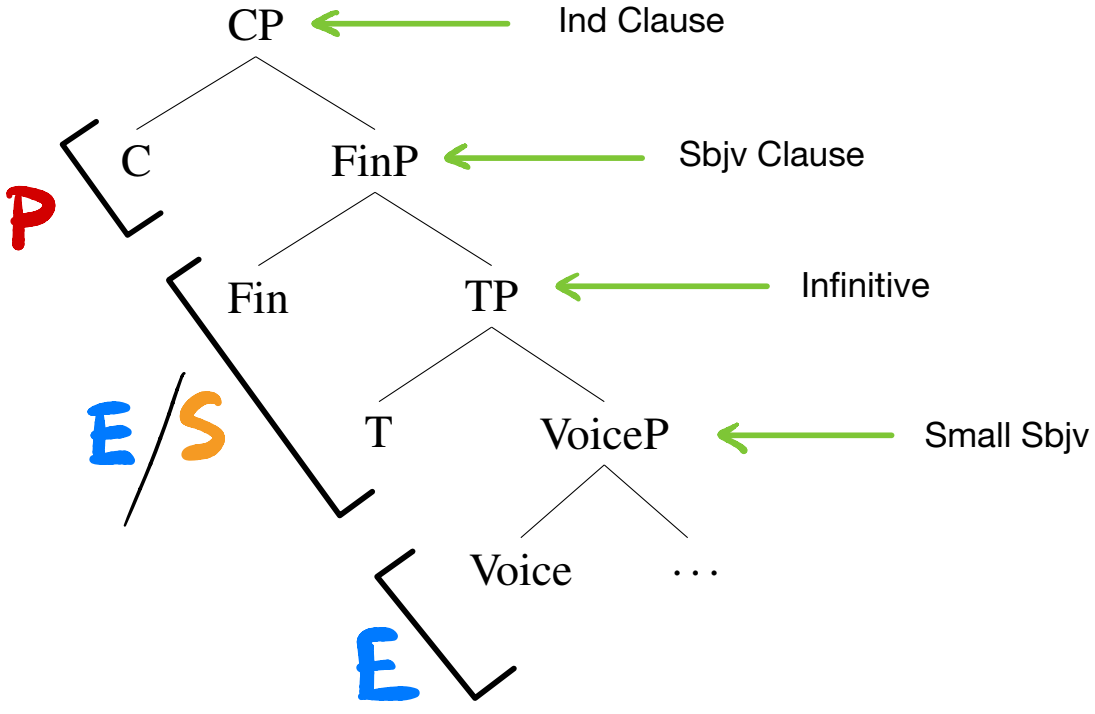
future oriented → Situation

tensed → Proposition

Ramchand & Svenonius 2014

(see also Rochette 1988, 1900; Stowell 1982; Pesetsky 1991; Lohninger & Wurmbrand 2020)


CP
Ind Clause
C
FinP
Sbjv Clause
Fin
TP
Infinitive
T
VoiceP
Small Sbjv
Voice
· · ·


CP
Ind Clause
C
FinP
Sbjv Clause
P
Fin
TP
Infinitive
E/S
T
VoiceP
Small Sbjv
Voice
...
E

Final piece: All but Small Subjunctives are externally DPs (Pietraszko 2017, 2019)

Small Sbjv	Infinitive	Sbjv Clause	Ind Clause
VoiceP …	DP D TP …	DP D FinP …	DP D CP …

Summary:

Clause type	Small Sbjv	Infinitive	Sbjv Clause	*Ind Clause*
Syntax	vP +FIN +SBJV	DP −FIN −SBJV	DP +FIN +SBJV	DP +FIN −SBJV
Semantics	Event	Event or Situation		Proposition

Against semantic selection only

phinda (‘do again’) can combine with three different clause types, **with no meaning difference:**

(22) Ngi-phind-é [$_{\text{VoiceP}}$ nga-phéka (#kusasa).] Small Sbjv
1sg-again-PST 1sg-cook.PST.SBJV tomorrow
‘I cooked again (#tomorrow) ’

(23) Ngi-phind-é [$_{\text{DP}}$ uku-pheka (#kusasa).] Infinitive
1sg-again-PST INF-cook tomorrow
‘I cooked again (#tomorrow) ’

(24) Ngi-phind-é [$_{\text{DP}}$ ukuthi ngi-pheke (#kusasa).] Sbjv Clause
1sg-again-PST COMP 1sg-cook.SBJV tomorrow
‘I cooked again (#tomorrow) ’

Against semantic selection only

phinda (‘do again’) can combine with three different clause types, **with no meaning difference:**

(22) Ngi-phind-é [$_{\text{VoiceP}}$ nga-phéka (#kusasa).] Small Sbjv

1sg-again-PST 1sg-cook.PST.SBJV tomorrow

‘I cooked again (#tomorrow) ’

(23) Ngi-phind-é [$_{\text{DP}}$ uku-pheka (#kusasa).] Infinitive

1sg-again-PST INF-cook tomorrow

‘I cooked again (#tomorrow) ’

(24) Ngi-phind-é [$_{\text{DP}}$ ukuthi ngi-pheke (#kusasa).] Sbjv Clause

1sg-again-PST COMP 1sg-cook.SBJV tomorrow

‘I cooked again (#tomorrow) ’

Conclusion: All three (Small Sbjv, Inf and Sbjv Clause) are possible expressions of E.

Prediction: All predicates selecting for E should be able to combine with the three clause types.

Prediction: All predicates selecting for E should be able to combine with the three clause types.

mane ('simply do') takes an E complement but allows only Small Subjunctives:

(25) Ngi-man-é [$_{VoiceP}$ nga-phéka (#kusasa).] — Small Sbjv ✓
1sg-simply-PST 1sg-cook.PST.SBJV tomorrow
'I simply cooked (#tomorrow) '

(26) *Ngi-man-é [$_{DP}$ uku-pheka (kusasa).] — Infinitive ✗
1sg-simply-PST INF-cook tomorrow
'I simply cooked (tomorrow)'

(27) *Ngi-man-é [$_{DP}$ ukuthi ngi-pheke (kusasa).] — Sbjv Clause ✗
1sg-simply-PST COMP 1sg-cook.SBJV tomorrow
'I simply cooked (tomorrow)'

(28) *Ngi-man-é [$_{DP}$ ukuthi ngi-ya-pheka (kusasa).] — Ind Clause ✗
1sg-simply-PST COMP 1sg-PRES-cook tomorrow
'I simply cooked (tomorrow)'

Prediction: All predicates selecting for E should be able to combine with the three clause types.

jayela ('usually do') takes an E complement but allows only Infinitives and Sbjv Clauses:

(29) *Ngi-a-jayela [$_{VoiceP}$ nga-phéka (kusasa).] Small Sbjv ✗
1sg-PST-usually 1sg-cook.PST.SBJV tomorrow
'I used to cook (#tomorrow) '

(30) Ngi-a-jayela [$_{DP}$ uku-pheka (#kusasa).] Infinitive ✓
1sg-PST-usually INF-cook tomorrow
'I used to cook (#tomorrow) '

(31) Ngi-a-jayela [$_{DP}$ ukuthi ngi-pheke (#kusasa).] Sbjv Clause ✓
1sg-PST-usually COMP 1sg-cook.SBJV tomorrow
'I used to cook'

(32) *Ngi-a-jayela [$_{DP}$ ukuthi ngi-{ya/a}-pheka (kusasa).] Ind Clause ✗
1sg-PST-usually COMP 1sg-{PRES/PST}-cook tomorrow
'I used to cook' (tomorrow)'

Three types of E-selecting predicates in Ndebele

	‘simply do’	‘usually do’	‘do again’
Small Sbjv	✓	✗	✓
Infinitive	✗	✓	✓
Sbjv Clause	✗	✓	✓
Ind Clause	✗	✗	✗

Selection for semantic types fails to derive this variation.

Against syntactic selection only

Small Sbjv	**Infinitive**	**Sbjv Clause**	**Inf Clause**
VoiceP	DP	DP	DP
+FIN	−FIN	+FIN	+FIN
+SBJV	−SBJV	+SBJV	−SBJV

	‘simply do’	‘usually do’	‘do again’
Small Sbjv	✓	✗	✓
Infinitive	✗	✓	✓
Sbjv Clause	✗	✓	✓
Ind Clause	✗	✗	✗

Against syntactic selection only

Small Sbjv	Infinitive	Sbjv Clause	Inf Clause
VoiceP	DP	DP	DP
+FIN	−FIN	+FIN	+FIN
+SBJV	−SBJV	+SBJV	−SBJV

	'simply do'	'usually do'	'do again'
Small Sbjv	✓	✗	✓
Infinitive	✗	✓	✓
Sbjv Clause	✗	✓	✓
Ind Clause	✗	✗	✗

← Not natural classes

Against syntactic selection only

Small Sbjv	**Infinitive**	**Sbjv Clause**	**Inf Clause**
VoiceP	DP	DP	DP
+FIN	−FIN	+FIN	+FIN
+SBJV	−SBJV	+SBJV	−SBJV

	‘simply do’	‘usually do’	‘do again’
Small Sbjv	✓	✗	✓
Infinitive	✗	✓	✓
Sbjv Clause	✗	✓	✓
Ind Clause	✗	✗	✗

Way out 1: Add a syntactic feature shared only by Infinitives and Sbjv Clauses
→ No independent evidence for such as feature.

Against syntactic selection only

Small Sbjv	Infinitive	Sbjv Clause	Inf Clause
VoiceP	DP	DP	DP
+FIN	−FIN	+FIN	+FIN
+SBJV	−SBJV	+SBJV	−SBJV

	'simply do'	'usually do'	'do again'
Small Sbjv	✓	✗	✓
Infinitive	✗	✓	✓
Sbjv Clause	✗	✓	✓
Ind Clause	✗	✗	✗

Way out 1: Add a syntactic feature shared only by Infinitives and Sbjv Clauses
→ No independent evidence for such as feature.

Way out 2: 'usually do' is a lexical accident: it can have either [Sel:DP_{-FIN}] or [Sel:DP_{+SBJV}]
→ Over a third of all collected predicates have this selectional profile.

There are 5 selectional profiles of clause-embedding verbs in Ndebele

	Class 1	Class 2	Class 3	Class 4	Class 5
Small Sbjv	✓	✗	✓	✗	✗
Infinitive	✗	✓	✓	✗	✓
Sbjv Clause	✗	✓	✓	✗	✓
Ind Clause	✗	✗	✗	✓	✓
# of verbs (total 34)	6	12	2	5	9
	simply do	want	do again	worry	be sad
	finally do	try	do first	blame	forget
	just do	usually do		know	think
	almost do	wish		believe	like
	sometimes do	must1		trust	hate
	cannot	must2			say
		ask			promise
		continue			be afraid
		choose			agree
		contemplate			
		avoid			
		manage			

An explanatory account of selectional patterns in Ndebele has the following components:

I. Assumptions about the category and denotation of each complement type:

Small Sbjv	Infinitive	Sbjv Clause	Ind Clause
VoiceP	DP	DP	DP
E	E or S		P

II. Assumption about denotation correlates with clause size (Lohninger & Wurmbrand 2020):

a. E-denoting constituents must be minimally vPs
b. S-denoting constituents must be minimally TPs
c. P-denoting constituents must be minimally CPs

III. Predicates may pose both syntactic and semantic selectional restrictions:

a. semantic selection: **E, S, P**
b. syntactic selection: **category features** (here, Voice and D)

Assumption:

Small Sbjv	Infinitive	Sbjv Clause	Ind Clause
VoiceP	DP	DP	DP
E	E or S		P

Analysis:

	Class 1	Class 2	Class 3	Class 4	Class 5
Small Sbjv	✓	✗	✓	✗	✗
Infinitive	✗	✓	✓	✗	✓
Sbjv Clause	✗	✓	✓	✗	✓
Ind Clause	✗	✗	✗	✓	✓
Selection for:	Voice	DP, E / S	E	P	DP

Small Sbjv	Infinitive	Sbjv Clause	Ind Clause
VoiceP	DP	DP	DP
E	E or S		P

E: minimally a vP
S: minimally a TP
P: minimally a CP

11 logically possible combinations of a syntactic and a semantic type:

	Selection for:
1.	VoiceP, E
2.	VoiceP, S
3.	VoiceP, P
4.	DP, E
5.	DP, S
6.	DP, P
7.	VoiceP
8.	DP
9.	E
10.	S
11.	P

Small Sbjv	Infinitive	Sbjv Clause	Ind Clause
VoiceP	DP	DP	DP
E	E or S		P

E:	minimally a vP
S:	minimally a TP
P:	minimally a CP

11 logically possible combinations of a syntactic and a semantic type:

	Selection for:	
1.	VoiceP, E	
2.	VoiceP, S	
3.	VoiceP, P	
4.	DP, E	**Type 2**: E-denoting Infinitive or Sbjv Clause
5.	DP, S	
6.	DP, P	
7.	VoiceP	**Type 1**: Small Sbjv
8.	DP	**Type 5**: Infinitive, Sbjv Clause or Ind Clause
9.	E	**Type 3**: Small Sbjv, Infinitive or Sbjv Clause
10.	S	**Type 2**: S-denoting Infinitive or Sbjv Clause
11.	P	**Type 4**: Ind Clause

Small Sbjv	Infinitive	Sbjv Clause	Ind Clause
VoiceP	DP	DP	DP
E	E or S		P

E:	minimally a vP
S:	minimally a TP
P:	minimally a CP

11 logically possible combinations of a syntactic and a semantic type:

	Selection for:	
1.	VoiceP, E	
2.	VoiceP, S	
3.	VoiceP, P	
4.	DP, E	**Type 2**: E-denoting Infinitive or Sbjv Clause
5.	DP, S	=10 (all S-denoting clauses are nominalized in Ndebele)
6.	DP, P	=11 (all P-denoting clauses are nominalized in Ndebele)
7.	VoiceP	**Type 1**: Small Sbjv
8.	DP	**Type 5**: Infinitive, Sbjv Clause or Ind Clause
9.	E	**Type 3**: Small Sbjv, Infinitive or Sbjv Clause
10.	S	**Type 2**: S-denoting Infinitive or Sbjv Clause
11.	P	**Type 4**: Ind Clause

Small Sbjv	Infinitive	Sbjv Clause	Ind Clause
VoiceP	DP	DP	DP
E	E or S		P

E:	minimally a vP
S:	minimally a TP
P:	minimally a CP

11 logically possible combinations of a syntactic and a semantic type:

	Selection for:	
1.	VoiceP, E	Vacuous: VoiceP can only denote Events
2.	VoiceP, S	Impossible: S requires minimally a TP
3.	VoiceP, P	Impossible: S requires minimally a CP
4.	DP, E	**Type 2**: E-denoting Infinitive or Sbjv Clause
5.	DP, S	=10 (all S-denoting clauses are nominalized in Ndebele)
6.	DP, P	=11 (all P-denoting clauses are nominalized in Ndebele)
7.	VoiceP	**Type 1**: Small Sbjv
8.	DP	**Type 5**: Infinitive, Sbjv Clause or Ind Clause
9.	E	**Type 3**: Small Sbjv, Infinitive or Sbjv Clause
10.	S	**Type 2**: S-denoting Infinitive or Sbjv Clause
11.	P	**Type 4**: Ind Clause

No selection for mood and finiteness

Small Sbjv	Infinitive	Sbjv Clause	Ind Clause
VoiceP	DP	DP	DP
+FIN	−FIN	+FIN	+FIN
+SBJV	−SBJV	+SBJV	−SBJV
E	E or S		P

If [±SBJV] and [±FIN] could be selected for, the system would overgenerate:

- No verbs selecting Infinitives only: selection for [-FIN]
- No verbs selecting everything but Infinitives: selection for [+FIN]
- No verbs selecting Small Subjunctives and Sbjv Clauses only: selection for [+SBJV]
- No verbs selecting Sbjv Clauses only: selection for [DP,+SBJV]
- No verbs selecting Sbjv and Ind Clauses only: selection for [DP,+FIN]

Conclusions

- An explanatory analysis of embedding patterns in Ndebele requires selection for both syntactic and semantic features (Grimshaw 1979).
- The syntactic features targeted by selection are category features → c-selection.
- Syntactic selection is local (sisterhood).
- Features related to mood and finiteness and not targeted by selection.

Conclusions

- An explanatory analysis of embedding patterns in Ndebele requires selection for both syntactic and semantic features (Grimshaw 1979).
- The syntactic features targeted by selection are category features → c-selection.
- Syntactic selection is local (sisterhood).
- Features related to mood and finiteness and not targeted by selection.

Theoretical implications

- These conclusions raise the question of whether finiteness and mood correspond to designated syntactic features, such as ±FIN and ±SBJV.
  (see e.g. papers in Nikolaeva 2007; Pietraszko 2017, 2018; Lohninger & Wurmbrand 2020.)

  ➢ The irrelevance of these features for selection is not due the absence of finiteness and mood contrasts in the language.
- The necessity of c-selection entails the necessity of syntactic selectional features (e.g. [Sel:X]).

  ➢ Selection for features such as mood, finiteness, definiteness etc. could be syntactic or semantic.

Grimshaw, J. (1979). Complement selection and the lexicon. *Linguistic Inquiry*, 10(2), 279–326.

Grimshaw, J. (1981). Form, function, and the language acquisition device. In C. L. Baker & J. J. McCarthy (Eds.), *The Logical Problem of Language Acquisition*, number 1 in Cognitive Theory and Mental Representation (pp. 165–182). Cambridge, MA: MIT Press.

Kastner, I. (2015). Factivity mirrors interpretation: The selectional requirements of presuppositional verbs. *Lingua*, 164, 156–188.

Larson, R. K., den Dikken, M., & Ludlow, P. (1997). Intensional transitive verbs and abstract clausal complementation. Ms. Stony Brook University, Stony Brook, NY.

Lohninger, M. & Wurmbrand, S. (2020). Typology of complement clauses. In A. Benz, W. Frey, M. Krifka, T. McFadden, & M. Żygis (Eds.), *Handbook of clausal embedding*. Oxford University Press.

Moulton, K. (2009). *Natural Selection and the Syntax of Clausal Complementation*. PhD thesis, University of Massachusetts, Amherst.

Nikolaeva, I., Ed. (2007). *Finiteness: Theoretical and empirical foundations.* Oxford University Press.

Odijk, J. (1997). C-selection and s-selection. *Linguistic Inquiry*, 28, 365–371.

Pesetsky, D. (1982). *Paths and categories*. Doctoral dissertation, MIT, Cambridge, MA.

Pesetsky, D. (1991). Zero syntax, vol. 2: Infinitives. Ms.

Pietraszko, A. (2017). *Inflectional Dependencies: A study of complex verbal expressions in Ndebele.* PhD thesis, The University of Chicago.

Pietraszko, A. (2018). Direct and dependent valuation in ndebele light-verb constructions. In Wm. G. Bennett et al (Ed.), *Proceedings of the 35th West Coast Conference on Formal Linguistics* (pp. 313–320). MA: Cascadilla Proceedings Project.

Pietraszko, A. (2019). Obligatory CP nominalization in Ndebele. *Syntax*, 22, 66–111.

Pollard, C. & Sag, I. (1987). *Information-based syntax and semantics.* Stanford, CA: CSLI Publications.

Ramchand, G. & Svenonius, P. (2014). Deriving the functional hierarchy. *Language Sciences*, 46, 152–174.

Rochette, A. (1900). On the restructuring classes of verbs in romance. In A. Di Sciullo & A. Rochette (Eds.), *Binding in Romance: Essays in honour of Judith McA'Nulty*. Candian Linguistic Association.

Rochette, A. (1988). *Semantic and syntactic aspects of Romance sentential complementation*. PhD thesis, MIT.

Roussou, A. (2010). Selecting complementizers. *Lingua*, 120(582–603).

Stowell, T. (1982). The tense of infinitives. *Linguistic Inquiry*, 13, 561–570.