

# Hyper-raising

---

Instructor: Prof. David Pesetsky  
TA: Suzana Fong (sznfong@mit.edu)

Syntax 24.S90 | April 12, 2017

## 1 Background

### A. Data

- We've seen plenty of **raising**:
  - (1) a. Mary seems to have got the right answer.  
b. Close tabs seem to have been kept on Mary.  
c. The students seem to have all got good grades.
  - (2) Close tabs seem [ ——— to have been kept on Mary ]  
↑  
|
- And of **ECM** too:
  - (3) a. Mary expects Susan to have got the right answer.  
b. Susan expects close tabs to have been kept on Mary.  
c. Susan believes Mary *with all her heart* to have arrived late.
  - (4) *Representation of (3c)*

### B. Analysis: raising and ECM involve **movement into the matrix clause**

- Twin reasons for movement: **Case in the DP** and **EPP**
  - (5) a. In raising (see (1)), there clearly is movement. Given (3c), we could formulate the following working hypothesis:

Both ECM and raising involve movement triggered by EPP.

- b. Case in the DP

- How the derivation goes

(6) a. *Raising*

b. *ECM*

## 2 Hyper-raising

A. Some languages display constructions that are similar to English raising and ECM.

(7) *Brazilian Portuguese*

- Parece [ que **os alunos** vão fazer pão ].  
seems [ that the students will make bread ]  
'It seems that the students will make bread.'
- Os alunos** parecem [ que vão fazer pão ].  
the students seem [ that will make bread ]  
Lit.: 'The students seem that will make bread.'

- Other languages: Haitian Creole, Lubukusu, Zulu

(8) *Romanian*

- Știu copiii [ că **Ion** lăcomește la mâncare ]  
know the.children [ that Ion is.greedy at food ]  
'The children know that Ion is greedy with food.'
- Îl<sub>1</sub> știu copiii pe **Ion**<sub>1</sub> [ că lăcomește la mâncare ].  
CL.ACC know the.children DOM Ion [ that is.greedy at food ]  
Lit.: 'The children know Ion to be greedy with food.'
- Am simțito **pe Maria din nou** [ că nu vrea să răspundă ].  
I.have felt DOM Maria of again [ that not wants answer ]  
'I felt yet again that Maria did not want to answer.'

- Other languages: Buryat, Nez Perce, Janitzio P'urhepecha, Sakha

- (8b')  $\hat{\text{Î}}_1$  știu copiii  $\text{pe Ion}_1$  [ că lăcomește la mâncare ].  
 CL.ACC know the.children DOM Ion [ that is.greedy at food ]  
 Lit.: 'The children know Ion to be greedy with food.'

- ▶  $\hat{\text{Î}}$  is an accusative clitic. In a language like Romanian (and, e.g., Spanish), there can be clitics that are co-indexed with some argument DP (here, *Ion*).
  - ▷ In Romanian, the clitic has to match the Case of the DP it refers back to.
  - ▷ Here, the clitic is **accusative**, suggesting that *Ion* is also accusative.
- ▶ **DOM** stands for *differential object marking*.
  - ▷ Some languages (e.g., Spanish, Turkish) have more than one morphology for objects.
  - ▷ The criterium can be semantic (e.g., one marking for [+human] and another for [–human]).
  - ▷ Here, *Ion* is preceded by the DOM marker *pe*, again suggesting that it is an object.

## B. First-pass description of these constructions

- (7b') **Os alunos** parecem [ que vão fazer pão ].  
 the students seem [ that will make bread ]  
 Lit.: 'The students seem that will make bread.'

- (8b')  $\hat{\text{Î}}$  știu copiii **pe Ion** [ că lăcomește la mâncare ].  
 CL.ACC know the.children DOM Ion [ that is.greedy at food ]  
 Lit.: 'The children know Ion to be greedy with food.'

- A DP (*the students* in (7b) and *Ion* in (8b)) is interpreted as the subject of the *embedded* clause.
- Nevertheless, it is pronounced somewhere in the *matrix* clause.

## 2.1 How are these constructions derived?

### A. There is some faint suggestion from linear order that these constructions are derived by movement.

- *The students* and *Ion* are interpreted in the embedded clause because they were generated there.
- But they are pronounced in the matrix clause because of movement.

(9) **The students** seem [ that \_\_\_\_\_ will make bread ]  
 ↑

(10) The children know **pe Ion** [ that \_\_\_\_\_ is greedy with food ]  
 ↑

### Hypothesis #1

The sentences in (7b) and (8b) are derived by movement.

### B. But linear order alone isn't a compelling argument. Recall the following contrast:

- (11) a. Susan believes Mary to always arrive on time.  
 b. Susan convinced Mary to always arrive on time.

- (12) a. \_\_\_\_\_  
 b. \_\_\_\_\_

(13) In (11b), *Mary* is interpreted as the subject of the embedded clause because...

C. Furthermore, Brazilian Portuguese and Romanian (and the other languages mentioned above) are **pro-drop** languages.

- Very roughly, this means that the subject position doesn't have to be filled by anything pronounced.

(7a') **pro**<sub>expl</sub> parece [ que os alunos vão fazer pão ].  
*pro* seems [ that the students will make bread ]

Lit.: 'The students seem that will make bread.'

(14) *It seems that the students will make bread.*

(15) A *Maria*<sub>1</sub> disse [ que **pro**<sub>1</sub> vai fazer bolo ].  
 the *Maria* said [ that *pro* will make bread ]

'*Maria* said that she will make bread.'

D. Considering:

- what we concluded in (13)
- the fact that Brazilian Portuguese and Romanian are *pro*-drop languages,

the sentences (7b, 8b) could be represented as follows:

- (16) a.  
 b.

## Hypothesis #2

## 2.2 Deciding between the two hypotheses

A. Diagnostic: \_\_\_\_\_

(17) *Brazilian Portuguese*

- a. Parece [ que **a vaca** foi pro brejo ].  
 seems [ that the cow went to.the swamp ]  
 'It seems that things went bad.'

- b. A **vaca** parece [ que foi pro brejo ].  
the cow seems [ that went to.the swamp ]  
'It seems that things went bad.'

• Unexpected data:

(18) *Romanian*

a. Cred [ că îi sărit **muștarul** ].  
I.believe [ that on.him jumped mustard ]  
'I believe that he will lose his temper.'

b. \*Cred **muștarul** [ că îi sărit ].  
I.believe mustard [ that on.him jumped ]  
Intended: 'I believe that he will lose his temper.'

- There might be independent reason why (18b) is ungrammatical.
- Consider the English sentence *I saw [ that John was cooking ]*.
- The Romanian sentence *I saw **pe John** [ that was cooking ]* requires a different context to be felicitous.
- Maybe the "special meaning" of these constructions is causing (18b) to be ungrammatical.  
☞ Everything is not lost (hopefully).

B. Diagnostic: \_\_\_\_\_

(19) *Brazilian Portuguese*

a. Parece [ que **todos os meninos** já chegaram ].  
seems [ that all the boys already arrived ]  
'It seems that all the boys have already arrived.'

b. **Os meninos** parecem [ que já chegaram **todos** ].  
the boys seem [ that already arrived all ]  
Lit.: 'The boys seem that all have already arrived.'

(20) *Romanian*

a. Am văzut eu [ că ezita **cam toți studenți** să voteze ]  
have seen I [ that hesitate most all students vote ]  
'I notice that most all students are hesitant to vote.'

b. I-am văzut eu **pe studenți** [ că ezita **cam toți** să voteze ].  
CL.ACC-have seen I DOM students [ that hesitate most all vote ]  
'I notice that most all students are hesitant to vote.'

Which hypothesis would you be inclined towards?

### 2.3 Why do we care?


A. It seems then that we do have evidence for our initial hypothesis:

(9') **The students** seem [ that \_\_\_\_\_ will make bread ]  
↑

(10') The children know **pe Ion** [ that \_\_\_\_\_ is greedy with food ]  
↑

- This makes the Brazilian Portuguese and Romanian sentences very similar to the raising and ECM sentences in the beginning.

(2') Close tabs seem [ \_\_\_\_ to have been kept on Mary ]  


(4') Susan believes Mary *with all her heart* [ \_\_\_\_ to have arrived late ]  


- But the sentences in Brazilian Portuguese and Romanian and those in English are not completely identical.

(21) Difference

i. English:

ii. Brazilian Portuguese and Romanian:

(22) This is called **hyper-raising**: \_\_\_\_\_

i. Raising ↔

ii. ECM ↔

#### B. Why would we care about hyper-raising?

- Recall our analysis in (5): raising and ECM were a joint of consequence EPP in the target and Case in the DP undergoing raising or ECM.
- Under this analysis, moving the embedded subject was *necessary* for the syntactic derivation.
  - Without movement, there wouldn't be Case for the subject of the embedded clause.
- With an additional assumption, we could also explain why both types of hyper-raising are forbidden in a language like English.

(23) a. \* The students seem that will make bread.

b. \* The children know him that is greedy with food.

- Candidates for what can explain the ungrammaticality of the sentences in (23):

(24) a. A restriction on where movement can depart from:

b. A restriction on Case assignment:

#### C. Which restriction to choose?

- Either of them could do the job to explain the ungrammaticality in (23).
- Here: we will stick to the restriction on movement (24a).
- I think the Case restriction in (24b) is superfluous. Consider **case-stacking** in Korean:

(25) John-un Chelswu-**eykey-lul** [ \_\_\_\_ ton-i manhta-ko ] mitnunta.  
 John-TOP Chelswu-DAT-ACC [ \_\_\_\_ money-NOM much-COMP ] believes  
 'John believes that Chelswu has lots of money.'

- Dative comes from the embedded clause; Korean is one of these languages where possessive constructions look like *To me is money*.
- Accusative comes from the matrix clause, via hyper-raising to object (the tests we applied here can be extended to Korean as well).
  - ☞ It is possible that DPs may get more than one Case, so I won't worry too much about (24b).

### 3 Analysis

- ▶ Hyper-raising (to subject or object) involves movement.
- ▶ Goal: provide an analysis of hyper-raising
- ▶ Why: because general grammatical principles (e.g., (24a)) predict that these constructions should be impossible.

#### 3.1 A-moving out of a CP

A. Not all movement is blocked from a finite CP.

(26)

- A way to formalize this type of movement: **features**

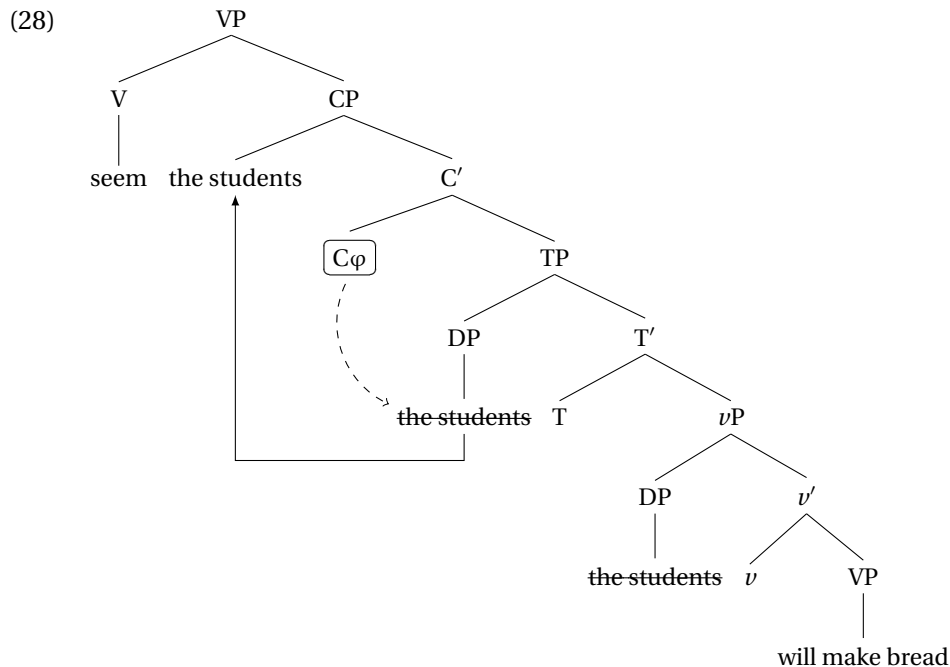
(27)

B. **Proposal:** extension to hyper-raising

In languages that allow for hyper-raising, there are  $\varphi$ -features in the C of the embedded clause, triggering movement of a DP to its edge.

- Illustrating with hyper-raising to subject in Brazilian Portuguese (the same applies to hyper-raising to object in Romanian):

(7b') **Os alunos** parecem [ que vão fazer pão ].  
 the students seem [ that will make bread ]  
 Lit.: 'The students seem that will make bread.'



- The features in C are supposed to enable the A-movement of the embedded subject out of the finite CP. From there, it moves into the matrix clause (not depicted).
  - This is pretty much that same in successive cyclic *Wh*-movement, for which we have evidence of intermediate movement to [Spec, CP].

### 3.2 Consequence of the analysis: restrictiveness

A. Hyper-raising is a restricted phenomenon in two ways.

- It is not allowed in all languages. While Brazilian Portuguese and Romanian allows for it, English doesn't.
- In the languages that do allow for hyper-raising, *not all predicates allow for it*.

(29) *Brazilian Portuguese*

- Calhou [ que o João fez pão demais ].  
turned.out [ that the João did bread too.much ]  
'It turned out that João made too much bread.'
- \*O João calhou [ que \_\_\_ fez pão demais ].  
the João turned.out [ that \_\_\_ did bread too.much ]  
'It turned out that João made too much bread.'

(30) *Romanian*

- Consider [ că Ion e băiat deștept ].  
I.consider [ that Ion is boy smart ]  
'I consider Ion to be a smart guy.'
- \*Îl consider pe Ion [ că e băiat deștept ].  
CL.ACC I.consider DOM Ion [ that is boy smart ]  
'I consider Ion to be a smart guy.'



### B. Selection-based proposal:<sup>1</sup>

The possibility of hyper-raising is tied to **selection**. A predicate (e.g., *parecer* ‘seem’ in Brazilian Portuguese) may or may not be compatible with a CP whose head is looking for  $\varphi$ -features.

- (i) Languages that do not allow for hyper-raising (e.g., English): predicates simply cannot combine with a CP that is looking for  $\varphi$ -features.
- (ii) Languages that do allow for hyper-raising, but not for all predicates (Brazilian Portuguese and Romanian): some predicates, but not all, can combine with a CP that is looking for  $\varphi$ -features.

### C. This is similar to selection of interrogative clauses

- (31) a. Mary wonders [ what Susan read ].  
 b. \*Mary concluded [ what Susan read ].  
 (cf. *Mary concluded [ that Susan read ‘A Handmaid’s Tale’ ]*.)

### D. Disclaimer

- All I am claiming is that the proposal provides a way to *formalize* the double restrictiveness problem.
- In fact, a flaw in the analysis is that it is not predictive, i.e., I can’t tell ahead of time which languages or predicates within language allow for hyper-raising.

## 3.3 Consequence of the analysis: hyper-hyper-raising

### A. Rough summary of van Urk (2015)

- Syntactic positions can be defined in terms of their features (and not as inherently A or  $\bar{A}$ .)
- A consequence of this featural view of syntactic positions is that there can be **composite probes** ( $A/\bar{A}$ ). This is illustrated by Dinka, where movement can have overt properties of both A- and  $\bar{A}$ -movement.

- (32) a. **Pǎal** à-ÉEmè Áyèn cuïn \_\_\_\_.  
 knife is.eating Ayen.GEN food  
 ‘With a knife, Ayen is eating food.’  
 b. **Cuïn** à-yàa tàak [<sub>CP</sub> kè cÉEm Áyèn \_\_\_\_ ]  
 food I think [ that eat Ayen.GEN \_\_\_\_ ]  
 ‘The food, I think that Ayen is eating.’

o What (32) is showing us: \_\_\_\_\_

- (33) a. Yiin Ø-cíi môc tiiN.  
 you has<sub>you</sub> man.GEN see  
 ‘You, the man has seen.’  
 b. Miir à-caa tiiN.  
 giraffe I.have<sub>3SG</sub> see  
 ‘A giraffe, I have seen.’  
 c. MiÉEr áa-càa ké tiiN.  
 giraffes I.have<sub>3PL</sub> they see  
 ‘Giraffes, I have seen.’

<sup>1</sup>This idea is due to David Pesetsky (p.c.).

- What (33) is showing us: \_\_\_\_\_

B. The proposal here is to derive hyper-raising by postulating  $\phi$ -features in C.

☞ If we assume that van Urk (2015) is correct (and the analysis for Dinka is pretty compelling), we expect there to be *hyper-raising that is triggered by a composite  $A/\bar{A}$ -probe*.

C. I think this is correct: Passamaquoddy allows for **hyper-raising of a lower argument**.

- Cf. Brazilian Portuguese and Romanian (and the other languages mentioned), where hyper-raising always targets a subject. What condition of A-movement explains this: \_\_\_\_\_

(34) *Passamaquoddy*

- pro* kat=te 'kocichtuwon [ tan **pro** oc 'tolikisiqsokassin ].  
*pro* NEG know.TI [ how *pro* will get.across ]  
 'He does not know how he is to get across.'
- Susehp 'kosiciy-à **akòm** [ eli Muwin kisimilat Wiphun \_\_\_\_ ].  
 Susehp knows-PL snowshoes [ that Muwin gave Wiphun \_\_\_\_ ]  
 'Susehp knows that Muwin gave Wiphun snowshoes.'

#### Agreement in Passamaquoddy

- ▶ The Passamaquoddy verb agrees with several elements in the sentence (and not just the subject, as in English).
- ▶ Agreement is also sensitive to the animacy of the element agreed with.
- ▶ TI is 'transitive inanimate'. In (34a), TI could be seen as either agreement with the embedded clause or as default agreement.
- ▶ Compare this with (34b), where the verb agrees with *snowshoes*.

D. Wait a minute! We should check whether hypothesis #2 (base-generation) can be applied to Passamaquoddy.

- N-piluwitahama not skitap nipa-kotunke [ eci **kukee** oliyat Kehlisk ]  
 I-suspect that man poaches [ when warden goes Calais-to ]  
 'I suspect that that man poaches [when the warden goes to Calais].'
- \*N-piluwitahama **kukec** not skitap nipa-kotunke [ eci \_\_\_\_ oliyat Kehlisk ]  
 I-suspect *warden* that man poaches [ when \_\_\_\_ goes Calais-to ]  
 'I suspect of the warden that that man poaches [when \_\_\_\_ goes to Calais].'

- What the data in (35) is telling us:<sup>2</sup>

E. This variety of hyper-raising is called **hyper-hyper-raising**<sup>3</sup>

- Passamaquoddy poses the same puzzles that we saw in Brazilian Portuguese and Romanian (i.e., A-movement out of a CP).
- But with an extra **locality** puzzle: it is not the highest DP that moves/hyper-raises.

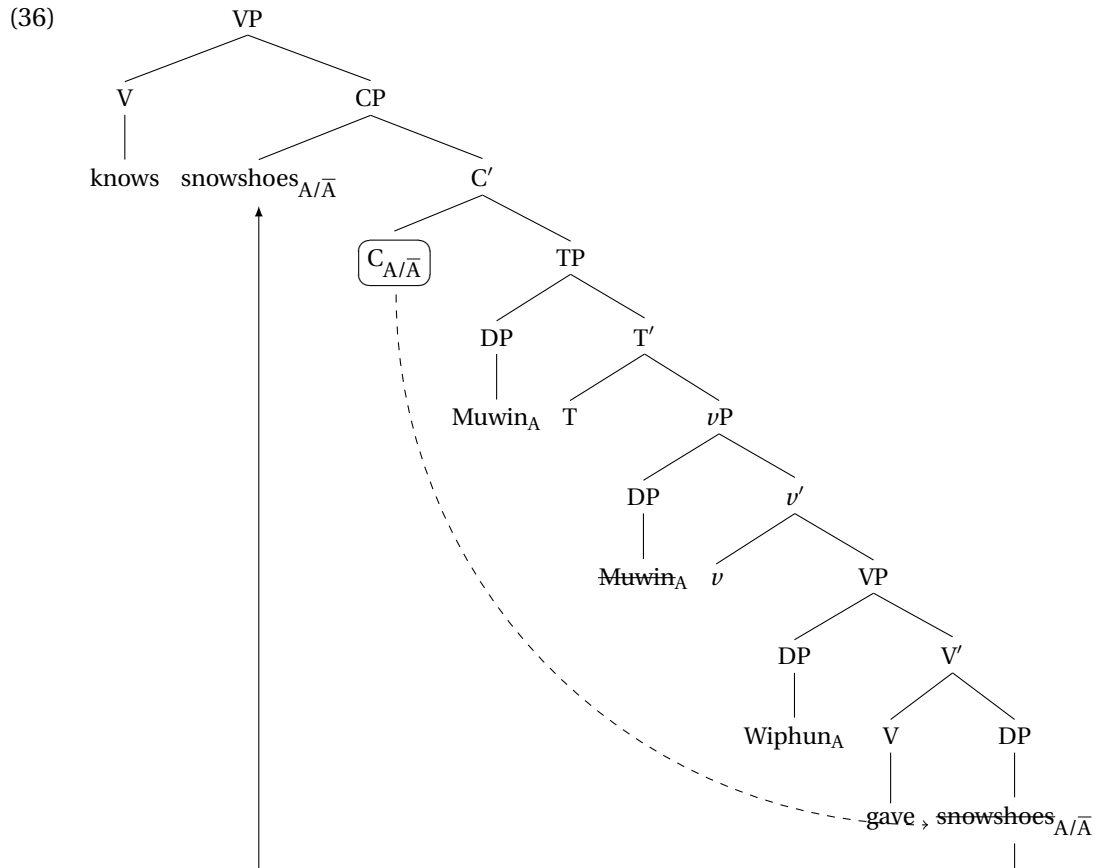
<sup>2</sup>NB: the same diagnostic can be applied to hyper-raising in Brazilian Portuguese and Romanian. I suppressed the data because of time and space.

<sup>3</sup>The term is due to David Pesetsky! Ura (1994) calls this 'super-raising'.

E. How this property is captured: a **composite A/ $\bar{A}$ -probe**

- If the highest DP does not have the A/ $\bar{A}$ -features that the probe in C is looking for, it will be skipped.
- The postulation of a composite probe then opens up the possibility that a lower argument is targeted for hyper-raising, as long as it contains the features sought for.

(34b') Susehp 'kosiciy-à **akòm** [ eli Muwin kisi-mil-at Wiphun \_\_\_\_ ].  
 Susehp knows-PL snowshoes [ C Muwin gave Wiphun \_\_\_\_ ]  
 'Susehp knows that Muwin gave Wiphun snowshoes.'



- This isn't outlandish. This is exactly what we see in our familiar  $\bar{A}$ -movement.

(37) What did Mary read \_\_\_\_  
 ↑

## 4 Take-home message

A. Hyper-raising and hyper-hyper-raising are not really special.

- The components of the analysis are supposed to have independent support.
  - $\varphi$ -features in C, analogous to  $\bar{A}$ -features
  - Composite probes, extensively argued for by van Urk (2015)
  - Selection

B. What is “special” about hyper-raising is just that it is necessary for there to be a *conjunction* of components in the same language.

- CPs with A- or A/ $\bar{A}$ -features
- Predicates that can combine with a CP that has these features

## Credits

Once again, many thanks to Prof. David Pesetsky for the opportunity of teaching this class! I simplified glosses (sometimes heavily) to make exposition clearer. The hyper-raising data in BP is a combination of my own data and data from Nunes (2008) and Ferreira (2009). The Romanian data is from Alboiu & Hill (2016) (and other papers/handouts by the authors) and from Donca Steriade (p.c.). Hyper-raising to object in Buryat: Bondarenko (2016); in Korean and Japanese: Yoon (2007) (a.o.), Nez Perce: Deal (2016); Janitzio P'urhepecha: Zyman (2016); Sakha: Baker & Vinokurova (2010); Passamaquoddy: Bruening (2002). The Dinka data is from van Urk (2015). The analysis of ECM (and raising) summarized in point 2 of §1 is based on David's lecture notes *little v*.

## References

- Alboiu, Gabriela, & Hill, Virginia. 2016. Evidentiality and Raising to Object as A-bar movement: A Romanian Case Study. *Syntax*, **19**(3), 256–285.
- Baker, Mark, & Vinokurova, Nadya. 2010. Two modalities of case assignment: Case in Sakha. *Natural Language & Linguistic Theory*, **28**(3), 593–642.
- Bondarenko, Tatiana. 2016. ECM in Buryat and the optionality of movement (WAFL handout).
- Bruening, Benjamin. 2002. Raising to object and proper movement. University of Delaware (ms.).
- Deal, Amy Rose. 2016. Covert hyperraising to object (NELS 47 handout).
- Ferreira, Marcelo. 2009. Null subjects and finite control in Brazilian Portuguese. In: Nunes, Jairo (ed), *Minimalist essays on Brazilian Portuguese syntax*. Amsterdam: John Benjamins.
- Nunes, Jairo. 2008. Inherent Case as a licensing condition for A-movement: the case of hyper-raising constructions in Brazilian Portuguese. *Journal of Portuguese Linguistics*, **7**(2), 83–108.
- Ura, Hiroyuki. 1994. *Varieties of raising and the feature-based bare phrase structure theory*. MIT Working Papers in Linguistics.
- van Urk, Coppe. 2015. *A uniform syntax for phrasal movement: A Dinka Bor case study*. Ph.D. thesis, MIT.
- Yoon, James H. 2007. Raising of major arguments in Korean and Japanese. *Natural Language & Linguistic Theory*, **25**(3), 615–653.
- Zyman, Eric. 2016. Hyperraising to object and the mechanics of Agree. USCS S-Circle handout.