

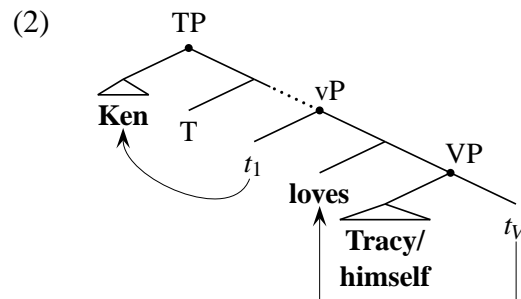
# External Argument Focus and Clausal Reflexivity\*

Byron Ahn (byron-[æ̃t]-ucla-[dat]-edu)  
UCLA Department of Linguistics  
WCCFL 29, April 24, 2011

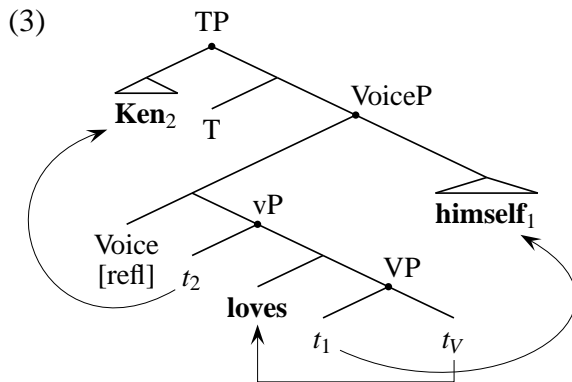
## 0 Background

- Even though commonly believed analyses of (English-like) reflexive clauses are rather varied (Chomsky 1981, 1986, Pollard and Sag 1992, Reinhart and Reuland 1993, Hornstein 2001, *inter alia*), most would seem to assume an S-structure representation of (1) to be as in (2)

- (1) a. Ken loves Tracy.  
b. Ken loves himself.



- Based on some novel focus data with reflexives, however, I will show that the structure in (2) is an oversimplification
  - Instead, the reflexive anaphor *Nself* undergoes feature-driven movement to a reflexive VoiceP
  - In this way, *himself* is very close to *Ken*, ensuring binding by the transitive clause subject
- Thus the structure of (1b) is as in (3), involving a reflexive Voice<sup>0</sup> and an additional movement that are not at play in (1a):



- This additional syntactic machinery is shown to be necessary for deriving various syntactic and prosodic behaviors of reflexive anaphors in English

---

\*I would like to thank everyone who has given me their time in helping me work through this problem, especially my advisor, Dominique Sportiche, as well as Natasha Abner, Isabelle Charneval, Sun-Ah Jun, Elsi Kaiser, Hilda Koopman, Robyn Orfitelli, Jessica Rett, Craig Sailor, Tim Stowell, Maziar Toosarvandani, and the audience of the UCLA Syntax/Semantics Seminar.

# 1 The Phenomenon

- A sentence like (4) is ambiguous, with the relevant meanings in (a) and (b):
  - (4) Johnny burned **HIMSÉLF**.
    - a. **ROBÉRTO** didn't burn Johnny; Johnny burned **HIMSÉLF**. (REAFR)
    - b. Johnny didn't burn **ROBÉRTO**; Johnny burned **HIMSÉLF**. (Obj.Foc.)
- Though what I term the **Clausal Reflexive (CR)** in (4a) bears the focus **prosody**, it is not the **meaningful** focus. This pattern is highly productive:
  - (5) A: Who was talking to Emma? (Agent Question)  
B: Emma was talking to **HERSÉLF**. (REAFR)
  - (6) A: What cools graphene transistors? (Cause Question)  
B: Due to their inherent properties, they cool **THEMSÉLVES**. (REAFR)
  - (7) A: Who likes the loudest boy? (Experiencer Question)  
B: The loudest boy likes **HIMSÉLF**. (REAFR)
  - Given...
    - ▶ ... **most theories of reflexivity** (e.g. Chomsky 1981, 1986, Pollard and Sag 1992, Reinhart and Reuland 1993, a.o.), and
    - ▶ ... **most theories for question-answer congruence** (e.g. Halliday 1967, Rooth 1992, Selkirk 1996, Schwarzschild 1999, a.o.),
  - ... this is generally **unpredicted** (but cf. Spathas 2010)
- What I term the **Realizing External Argument Focus on a Reflexive (REAFR)** phenomenon,<sup>1</sup> as in (4a) and (5)–(7), is characterized by:
  - the external argument<sup>2</sup> being focused information, without a pitch accent
  - a pitch accent on the **clausal reflexive**, without being focused information (cf. (4b))
- Only **clausal reflexives** participates in the **REAFR** phenomenon:
  - Its antecedent must be the external argument of the transitive clause
  - The **clausal reflexive** and antecedent must be syntactically local to one another
- **Clausal reflexives move in the overt syntax** to a reflexive Voice<sup>0</sup>
  - Further support from **Nuclear Pitch Accent distribution**
- **Clausal reflexives are subject-oriented**
  - The antecedent must be both **the surface and the deep subject** (Burzio 1986, Sportiche 2011)

## 2 More Data

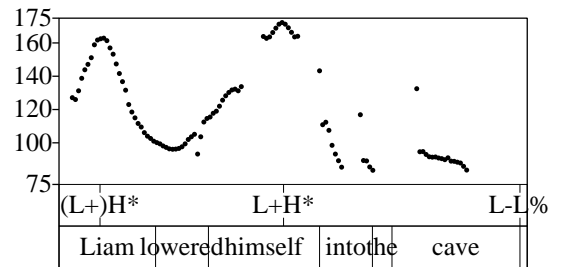
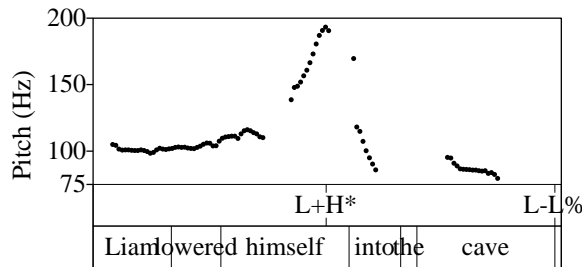
- These data are very common, and naturalistic examples are abundant in the wild:
  - (8) a. [Kids] practically raise **THEMSÉLVES**, what with the Inter- (Homer Simpson, The Simpsons  
net and all. Season 11 Episode 7)

<sup>1</sup>Thanks goes to Natasha Abner, for helping me with coming upon this term for the phenomenon.

<sup>2</sup>I take the term “external argument” to refer to a clause’s highest thematic argument from the set {Agent, Cause, Experiencer}.

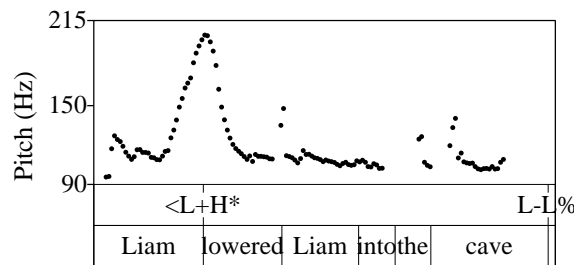
- b. Researchers find graphene transistors cool **THEMSÉLVES**. (Engadget: <http://goo.gl/3fO6Q>)
  - c. I'm running out of Hindi songs and the powerpoint still hasn't written **ITSÉLF**. (Twitter: <http://goo.gl/jffFe>)
  - d. Well, the vacuum didn't break **ITSÉLF**.
- The focus prosody **must** be borne by the **clausal reflexive** – additional focus prosody on the actual external argument is **optional**:

- (9) A: Who lowered Liam into the cave?
- a. #B: **LÍAM** lowered himself into the cave.
  - b. B: Liam lowered **HIMSÉLF** into the cave. (REAFR)
  - c. B: **LÍAM** lowered **HIMSÉLF** into the cave. (Dual Focus)



- This pattern **disappears in non-reflexive clauses**:

- (10) A: Who lowered Liam into the cave?
- a. B: **ÉMMA** lowered Liam into the cave.
  - b. B: **LÍAM** lowered Liam into the cave.



- Compare the (9b) and (10b), which form a **minimal pair with regard to syntactic reflexivity**

### 3 Inadequate Analyses

#### 3.1 **BAD ALTERNATIVE #1: REAFR is predicated on object focus**

##### General idea:

- The structure and interpretation of (4a) is a kind of a transformation on the more straightforward (4b)

##### Consequence:

- If the object focus interpretation is out, the **REAFR** interpretation should also be out

##### Doesn't work:

- Object focus interpretation is out, but **REAFR** works in (11)

- (11) a. Liz's sub didn't eat **ITSÉLF** – **SOMEONE ÉLSE** ate it. (REAFR)
- b. #Liz's sub didn't eat **ITSÉLF** – it ate **SOMETHING ÉLSE**. (Obj.Foc.)

### 3.2 BAD ALTERNATIVE #2: REAFR is predicated on Emphatic Reflexives

#### General idea:

- **Emphatic reflexives** are another instance of focused reflexive pronouns – maybe (12a) is derived by a transformation on (12b)

- (12) a. John hit **HIMSELF**.  
 b. John hit himself **himself**.

#### Consequence:

- The independently known constraints on **Emphatic Reflexives** (Ahn 2010) should also constrain when you can get **REAFR**

#### Doesn't work:

- <sup>vP</sup>**Emphatic Reflexives** modify predicates to add a meaning close to “without help”
  - <sup>vP</sup>**ERs** are limited to cases where their antecedent is an Agent

- (13) a. Which nurse cured you <sup>vP</sup>**herself**? *Agent*  
 b. #Which medicine cured you <sup>vP</sup>**itself**? *Cause*  
 c. #Which student likes linguistics <sup>vP</sup>**himself**? *Experiencer*

- However, **REAFR** is compatible with any type of external argument
  - Agents, Experiencers and Causes are all OK; recall (5)–(7), repeated below

- (5) A: Who was talking to Emma? (Agent Question)  
 B: Emma was talking to **HERSÉLF**. (REAFR)
- (6) A: What cools graphene transistors? (Cause Question)  
 B: Due to their inherent properties, they cool **THEMSÉLVES**. (REAFR)
- (7) A: Who likes the loudest boy? (Experiencer Question)  
 B: The loudest boy likes **HIMSÉLF**. (REAFR)

- <sup>dp</sup>**Emphatic Reflexives** modify DPs to add a meaning close to “**X**, not Y”
  - <sup>dp</sup>**ERs** are limited to cases where their antecedent is a <e>-type DP

- (14) a. #Every mother washed every baby boy <sup>dp</sup>**himself**. (Quantified Phrase)  
 b. #Nice girls would want to marry a schizophrenic <sup>dp</sup>**himself**. (Non-spec. Indef.)

- However, **REAFR** is compatible with any type of DP

- (15) A: Who washed every baby boy?  
 B: Every baby boy washed **HIMSÉLF**. (Quantified Phrase)
- (16) A: Who would want to marry a schizophrenic?  
 B: A schizophrenic would want to marry **HIMSÉLF**. (Non-spec. Indef.)

- Furthermore, a <sup>dp</sup>**ER** could not be adjoined to a silent pronoun in (15)–(16), as <sup>dp</sup>**ERs** are additionally highly degraded when attached to (non-nominative) pronouns (Lasnik and Sobin 2000):

- (17) \*?Charles gave {me <sup>dp</sup>**myself**/you <sup>dp</sup>**yourself**/him <sup>dp</sup>**himself**/himself <sup>dp</sup>**himself**} the reward.

- **REAFR** has a **broader distribution** than either **Emphatic Reflexive** would allow

### 3.3 BAD ALTERNATIVE #3: Focused reflexives can focus antecedents

#### General idea:

- Because of coreference, focusing reflexives is like focusing the antecedent directly

#### Consequence:

- The external-argument-hood of the antecedent, the Voice of the clause, and the reflexive's structural origin shouldn't matter

#### Doesn't work:

- Dual focus is *required* for non-external-argument antecedents (cf. (9))

- (18) A: Who did Angie introduce \_\_ to Ken?  
a. #B: Angie introduced Ken to HIMSÉLF. (Deacc.Antecedent)  
b. B: Angie introduced KÉN to HIMSÉLF. (Dual Focus)
- (19) A: Which student seems to Ken to be sick?  
a. #B: Ken seems to HIMSÉLF to be sick. (Deacc.Antecedent)  
b. B: KÉN seems to HIMSÉLF to be sick. (Dual Focus)

– Reflexives must have an external argument antecedent to allow REAFR

- Moreover, having an external argument antecedent isn't sufficient – passive clause external arguments don't allow REAFR

- (20) A: Who was Angie introduced to \_\_ by Ken?  
#B: Angie was introduced to Ken by HIMSÉLF. (REAFR)
- (21) A: Who was Angie introduced by \_\_ to Ken?  
#B: Angie was introduced by Ken to HIMSÉLF. (REAFR)

– See also data with French clitic *se* (Sportiche 2011) and data with Shona verbal affix *zvi* (Storoshenko 2009)

– Passive voice disrupts REAFR's necessary syntax

- Reflexives separated from antecedents by islands are incompatible with REAFR (compare (5) and (22))

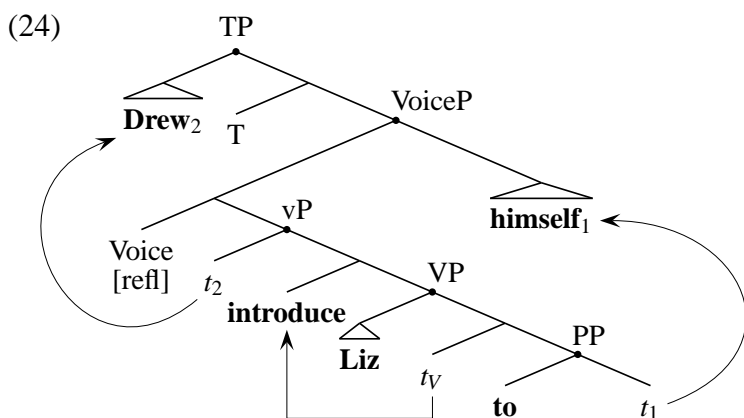
- (22) A: Who was talking to [Sebastian and Emma]?  
#B: Emma was talking to [Sebastian and HERSÉLF]. (REAFR)
- (23) A: Who counted five tourists [apart from Lucie]?  
#B: Lucie counted five tourists [apart from HERSÉLF]. (REAFR)

– It would seem we need a movement analysis for the reflexives in REAFR

## 4 Subject-Oriented Reflexives in English

### 4.1 Deriving REAFR Properties

A reflexive Voice<sup>0</sup> helps effect all properties described in section 1



- Voice<sup>0</sup> is an **argument structure head** (Sailor & Ahn, *in progress*)
  - merges with the theta-domain; is the pivot which determines a clause’s surface argument structure
  - **distinct from** the external-argument-introducer Voice<sup>0</sup> in Kratzer 1996, Alexiadou et al. 2006
- The refl Voice<sup>0</sup> selects for a transitive vP complement
- The refl Voice<sup>0</sup> also has an  $\mu$ EPP feature that attracts a reflexive anaphor
  - ⇒ The closest binder will always be **the external argument**
  - ⇒ The reflexive moves, **deriving island effects** in (22)–(23)
- This movement of the reflexive is necessary to license the refl Voice<sup>0</sup>
  - It is essentially reflexive-marking the predicate, as has been argued to be necessary (Reinhart and Reuland 1993), **in the narrow syntax**
- This Voice is a semantic reflexivizer
  - Adopting Spathas (2010), the reflexivizer is an arity-reducer:  $\llbracket \text{refl}_{et,et} \rrbracket = \lambda R \lambda x. R(x)(x)$
  - This will help us place the pitch accent

### 4.2 Deriving Pitch Accent Placment

- **F-marking the reflexivizer yields the ambiguity in (4)**
  - Briefly: the Existential F-closure (Schwarzschild 1999) of “burn himself” with its reflexivizer F-marked, will be  $\exists Q_{et,et} \exists x. Q\text{-burn}(x)$
  - Alternatives to the reflexive Q-burn could be “be burned” (external argument is suppressed; giving object focus) or “do burning” (internal argument is suppressed; giving REAFR)
  - For details, see Spathas (2010)
- Another reason to believe reflexivity is F-marked is that **REAFR is infelicitous when the reflexivity is discourse-given**:

(25) A: Which boy hit Tom?  
B: Tom hit **HIMSÉLF**.

(26) A: Which boy hit himself?  
#B: Tom hit **HIMSÉLF**.

- Thus REAFR seems to be limited to contexts where the clause’s reflexivity is new
  - ▶ Thus, the reflexivizing function should be F-marked

- In this theory, the reflexivizing function is the *silent* refl Voice head
  - F-marked silent heads  $\Rightarrow$  pitch accent on the specifier
    - ▶ Emphatic Reflexives are arguments of a silent F-marked functional head, ID, so the reflexive anaphor bears the focus pitch accent (Ahn 2010)

- (27) a. No student did it [ ID<sub>F</sub> HIMSÉLF ].  
 b. Jack [ ID<sub>F</sub> HIMSÉLF ] arrived.

- ▶ Polarity focus in Basque is borne by the specifier of  $\Sigma$ P, when  $\Sigma$  is silent, but by  $\Sigma$  when it's overt (Laka 1990)

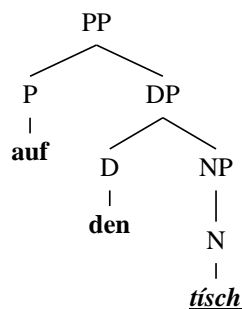
- (28) a. IRUNE  $\Sigma_F$  da etorri  
IRUNE AFF<sub>F</sub> has arrived  
 'Irene DÍD arrive'  
 b. Irune BA<sub>F</sub> da etorri  
 Irune SÓ<sub>F</sub> has arrived  
 'Irene did SÓ arrive'

- So focusing the silent refl Voice<sup>0</sup> in (24) will give us focus on its specifier: the clausal reflexive

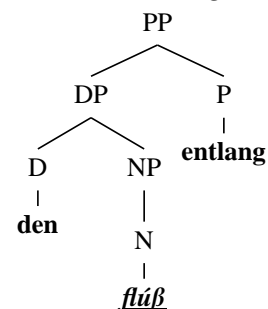
## 5 Bonus: Nuclear Pitch Accent

- Nuclear Pitch Accents (NPAs; a.k.a. Nuclear Stress) show up on the most embedded constituent of the structure<sup>3</sup> (Cinque 1993)

- (29) auf [den tisch]  
 on the table



- (30) [den flúß] entlang  
 the river along



- In default-sentential stress contexts, the same clausal reflexive that participates in REAFR – compare (31) with (5) – *never* bears the Nuclear Pitch Accent

- (31) A: What happened last night?  
 a. B: Emma was talking to herself *quietly*. (NPA on the low adverb)  
 b. B: Emma was *talking* to herself. (NPA on the verb)  
 c. B: Emma was talking to *Jéan*. (NPA on the object)

- (5) A: Who was talking to Emma?  
 B: Emma was talking HERSÉLF. (REAFR)

- The pattern in (31) is predicted, since *herself* has moved to VoiceP and is not the most embedded element in (31b), shown here:

- (32) Emma was [<sub>VP</sub> *talking* to *t<sub>i</sub>*] herself<sub>*i*</sub>. (NPA on the verb)

<sup>3</sup>Within a relevant domain. See (Stowell, *forthcoming*) for evidence from adverbials that this domain is roughly equal to Cinque (1999)'s VolitionalP.

- Contrastively, the **non-clausal reflexive** that *doesn't* participate in REAFR – compare (33) with (22) – *does* bear the NPA

- (33) A: What happened last night?  
 a. B: Emma was talking to Jean and **herself** *quietly*. (NPA on the low adverb)  
 b. #B: Emma was *talking* to Jean and **herself**. (NPA on the verb)  
 c. B: Emma was talking to Jean and **hersélf**. (NPA on the object)  
 d. B: Emma was talking to **herself** and *Jéan*. (NPA on the object)
- (22) A: Who was talking to Jean and Emma?  
 #B: Emma was talking to Jean and **HERSÉLF**. (REAFR)

– Here, **herself** behaves as though it *is* the most embedded element in (33b,c)

- (34) Emma was [<sub>VP</sub> talking to Jean and **hersélf**]. (NPA on the object)

## 6 Conclusion

- There are two types of reflexives in English (as in many, if not all, languages)
  - the **clausal reflexive**, and
  - the **elsewhere case**
- **Clausal reflexives** in English...
  - participate in REAFR contexts
  - are subject oriented reflexives
  - do not bear NPA, in “out-of-the-blue” contexts
- **All of these properties are derived via movement to the refl VoiceP**
  - which looks remarkably similar to Romance *se/si*

## 7 Further Questions

This research raises many questions which cannot be addressed here (see Ahn, *in progress*)

- What determines when you get **clausal reflexives**, and when you get **non-clausal reflexives**?
  - “Do the **extra movement** as much as the syntax lets you”
    - ▶ See also: weak/strong pronoun alternation (Cardinaletti and Starke 1999), object-shift-dependent specificity (Adger 1994, Rackowski and Richards 2005), possessor raising in Nez Perce (Deal 2011), etc.
  - Existing work (e.g. Safir 1996) suggests something similar for, e.g., French **se/lui-même**.
    - ▶ Do cases like Finnish **-UtU/itse-nsä**, Swahili **ji-/mw-enyewe**, etc. behave the same way?
- How does this theory apply to the Nself in other domains?
  - Which kind of reflexive can incorporated *self*- correspond to?
  - Which kind of reflexive can arguments in non-verbal domains be?
- What is the semantic contribution of *himself*, and what is constant across all of its instantiations?
  - e.g. **clausal reflexives**, **non-clausal reflexives**, inherent reflexives, emphatic reflexives, etc.



## References

- Adger, David. 1994. Functional heads and interpretation. Doctoral Dissertation, University of Edinburgh.
- Ahn, Byron. 2010. Not just emphatic reflexives themselves: Their prosody, semantics and syntax. Master's thesis, UCLA.
- Ahn, Byron. 2011. Explorations of voice, identity and the self. To be presented at Parallel Domains: A workshop in honor of Jean-Roger Vergnaud.
- Ahn, Byron. In Progress. Self-reflections: Syntactic reflexivity and a theory of multiple selves. Doctoral Dissertation, UCLA.
- Alexiadou, Artemis, Elena Anagnostopoulou, and Florian Schäfer. 2006. The properties of anticausatives crosslinguistically. In Phases of interpretation, volume 91 of Studies in Generative Grammar, chapter 3, 187–211. Mouton De Gruyter.
- Burzio, Luigi. 1986. Italian syntax: A government-binding approach. Dordrecht: Reidel.
- Cardinaletti, Anna, and Michal Starke. 1999. The typology of structural deficiency: A case study of the three classes of pronouns. In Clitics in the languages of Europe, ed. Henk Van Riemsdijk. Mouton De Gruyter.
- Chomsky, Noam. 1981. Lectures on government and binding. Walter de Gruyter.
- Chomsky, Noam. 1986. Barriers. Linguistic Inquiry Monograph. MIT Press.
- Cinque, Guglielmo. 1993. A null theory of phrase and compound stress. Linguistic Inquiry 24:239–297.
- Cinque, Guglielmo. 1999. Adverbs and functional heads: A cross-linguistic perspective. Oxford University Press.
- Deal, Amy Rose. 2011. A-thematic possessor raising. Presented at the 29th West Coast Conference on Formal Linguistics.
- Halliday, M.A.K. 1967. Notes on transitivity and theme in English: Part 2. Journal of Linguistics 3:199–244.
- Hornstein, Norbert. 2001. Move! a minimalist theory of construal. Blackwell Publishing.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In Phrase structure and the lexicon, volume 33 of Studies in Natural Language and Linguistic Theory, 109–137. Dordrecht: Kluwer.
- Laka, Itziar. 1990. Negation in syntax: On the nature of functional categories and projections. Doctoral Dissertation, MIT.
- Lasnik, Howard, and Nicholas Sobin. 2000. The who/whom puzzle: On the preservation of an archaic feature. Natural Language & Linguistic Theory 18:343–371.
- Pollard, Carl, and Ivan Sag. 1992. Anaphors in English and the scope of binding theory. Linguistic Inquiry 23:261–303.
- Rackowski, Andrea, and Norvin Richards. 2005. Phase edge and extraction: A Tagalog case study. Linguistic Inquiry 36:565–599.
- Reinhart, Tanya, and Eric Reuland. 1993. Reflexivity. Linguistic Inquiry 24:657–720.
- Rooth, Mats. 1992. A theory of focus interpretation. Natural Language Semantics 1:75–116.
- Safir, Ken. 1996. Semantic atoms of anaphora. Natural Language and Linguistic Theory 14:545–589.
- Sailor, Craig, and Byron Ahn. in progress. The voices in our heads. UCLA.
- Schwarzschild, Roger. 1999. Givenness, AvoidF and other constraints on the placement of accent. Natural Language Semantics 7:141–177.
- Selkirk, Elisabeth. 1996. Sentence prosody: Intonation, stress, and phrasing. In The handbook of phonological theory, ed. John A. Goldsmith, 550–569.

- Spathas, Georgios. 2010. Focus on anaphora. Doctoral Dissertation, University of Utrecht.
- Sportiche, Dominique. 2011. French reflexive se: Binding and Merge locality. UCLA.
- Storoshenko, Dennis. 2009. Investigating the Shona reflexive *zwi*. In Selected proceedings of the 39th annual conference on African linguistics, ed. Akinloye Ojo and Lioba Moshi. Cascadilla Proceedings Project.
- Stowell, Tim. Forthcoming. Parenthetical adverbials, *ms.* UCLA.