

What Prosody Reflects about Reflexives^{*}

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0. Introduction

♦ Let's start with a puzzle

(1) Prove it to **MÉ**!

a. \approx You should prove it to **ME**, instead of someone else.

b. \neq **You**, instead of someone else, should prove it to me.

(2) **YÓU** prove it to me!

a. \neq You should prove it to **ME**, instead of someone else.

b. \approx **You**, instead of someone else, should prove it to me.

(3) Prove it to **YOURSÉLF**!

a. \approx You should prove it to **YOURSELF**, instead of someone else.

b. \approx **You**, instead of someone else, should prove it to yourself.

► Why does (3) have two interpretations where the other have exactly one?

♦ We're going to use this kind of data to investigate what must be true for an adequate analysis of reflexivity

► English has a singular set of reflexive anaphors:¹

(4) myself, yourself, himself, herself, itself, ourselves, yourselves, themselves, oneself

► Despite this apparent homogeneity in English, reflexive anaphors do not form a homogeneous class, across the language

■ There are several different sub-types, each with its own properties

♦ We need a new, more refined approach to syntactic derivations of reflexivity

► In a way that makes English *look* more complicated than we thought, but which...

■ minimizes exceptionality with minimal syntactic machinery,

■ simplifies the way the grammatical modules interface with each other,

■ and actually reduces the amount of variation we see in the world's languages.

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¹There is some variation here. Some speakers also have *ourself* and *themselves*; some speakers use *hisself* and *theirselves*; etc.

ROADMAP OF THE TALK

① Reflexivity and New Data

- There are many different types of reflexive anaphora
- Some reflexive anaphors behave prosodically differently from other words/phrases

② Syntactic Constraints

- The prosodically distinct anaphors are constrained syntactically, in ways that look familiar from other languages

③ Analysis

- Prosodically distinct anaphors undergo syntactic movement, transparently feeding prosody and semantics

④ Conclusion

- English morphology betrays the heterogeneity of reflexive derivations
- The prosodic signal encodes acoustic traces of abstract syntactic structure

1. English Reflexivity and a Puzzle

- ◆ The question we will be investigating:
 - Why it is that reflexive anaphors are licensed in some positions, but not others?
 - (5) a. Kenneth expects you to live forever
 - b. Kenneth expects himself to live forever
 - c. Kenneth expects that you will live forever
 - d. *Kenneth expects that himself will live forever
 - This is not a particularly pressing issue, in the world at large
 - But every language exhibits **purely grammatical constraints** on how referential expressions, such as reflexives, are distributed
 - So exploring the distribution of reflexives serves as a window into the architecture of Language

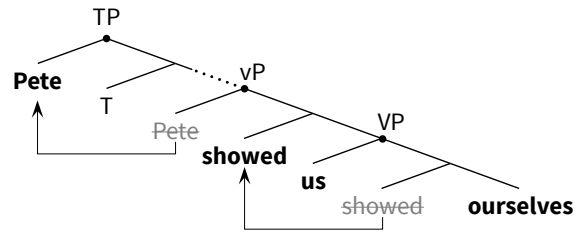
1.1. What (We Think) We Know

- ◆ Our state of knowledge on reflexives reflects our state of knowledge of Language
 - We have many proposals on the table for reflexives (Chomsky 1981, 1986a, Pollard and Sag 1992, Reinhart and Reuland 1993, Hornstein 2001, among many others)
 - And on many levels, each of these is quite successful
 - ...But they each make different empirical predictions, and none are entirely correct
- ◆ What does past research tell us about reflexives?
- ◆ We can boil down the literature to two main points:
 - ① Certain grammatical relationships must hold between reflexives and their antecedent.
 - ② ... but it's not that simple. Reflexives do not behave uniformly, even within a language.
 - **Goal:** formalize the appropriate conditions for ① while accounting for ②
 - We need to identify the relationships can/must hold in the various situations
- ◆ English has a single set of reflexive anaphors, but their properties and their licensing conditions depend on the context

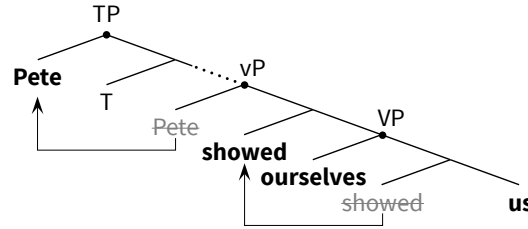
► First, let's look at structural configuration

- For some anaphors, being c-commanded by its antecedent is critical

(6) a. Pete showed us ourselves.



b. *Pete showed ourselves us.



◇ Only in (6a) is the anaphor c-commanded by its antecedent

- But for certain anaphors, it seems antecedents need not c-command them

(7) [Pictures of herself] covered Jenna's bed.

- Though for these same anaphors, there still needs to be an *expressed* antecedent

(8) *[Pictures of herself] covered their bed.

- And for yet other anaphors, there need not even be any expressed antecedent

(9) How about yourself?

► Next, let's look at structural locality

- Most of the time, the anaphor and its antecedent must occur in the same clause

(10) a. Jack expected [Roberta to investigate herself]

b. *Jack expected [Roberta to investigate himself]

- Though some anaphors (which do require antecedents) can be in a separate clause from their antecedent, with an intervening nominal

(11) a. %Jack expected [the fire to burn himself]

b. *I expected [the fire to burn himself]

- Another example with an antecedent in a different clause, with an intervening nominal

(12) You hired someone [to investigate yourself]?

(30 Rock, S2 E03)

◇ (cf. *You hired Bill to investigate yourself?)

► Lastly, let's look at derivational timing

- Some movements can optionally feed binding

(13) a. Ask her which stories about himself Jack likes ~~which stories about himself~~.

b. Ask her which stories about herself Jack likes ~~which stories about herself~~.

- And other movements can only bleed binding

(14) a. Ask her if, himself, Jack likes ~~himself~~.

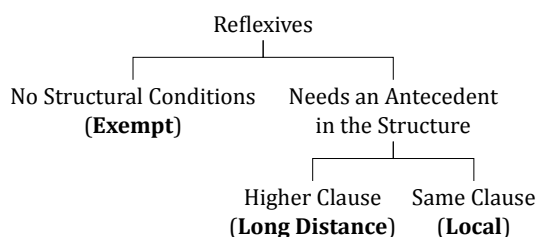
b. *Ask her if, herself, Jack likes ~~herself~~.

- (15) a. John had given himself a prize.
 b. *Himself had been given a prize by John.

- ▶ This leaves us with a beautiful mess of properties
 - And that's from just a brief (incomplete) look at English

♦ **Core observations:**

- ▶ English has different kinds of reflexives, which look similar on the surface:



- ▶ Some languages use obviously different words / morphemes / structures for different types of reflexives, unlike English

♦ Recall the generalizations we saw earlier

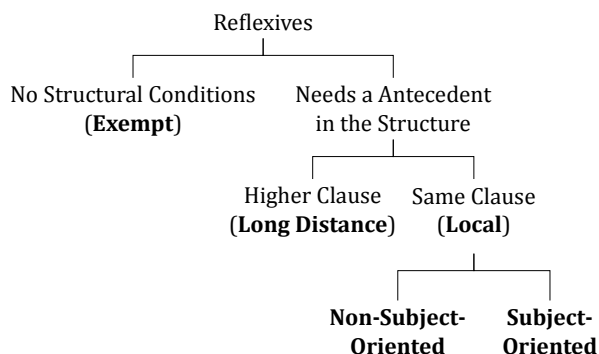
- ① Certain grammatical relationships must hold between reflexives and their antecedent.
- ② ... but it's not that simple. Reflexives do not behave uniformly, even within a language.

- ▶ This is understandable now:

- There are different types of reflexives – each with different properties (②)
- Which grammatical relationship (e.g., *c-command*) holds (①), depends on the type of reflexive

♦ In addition to these three types of reflexives, local reflexives can be subdivided into two groups

- ▶ On the basis of data from a range of other languages²



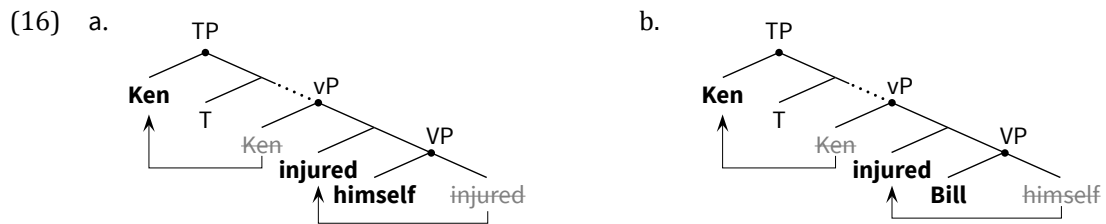
- ▶ Does English make this distinction in any way?

♦ Taken from this vantage point, it may be surprising that **past works tend to propose a single set of constraints** that are general enough to account for all these different types of anaphora at once

- ▶ Despite the heterogeneity of the class
- ▶ (Some approaches have in addition, a label for anaphors that don't fall under their licensing statement(s) – “exempt anaphors” in Pollard and Sag 1992 & Reinhart and Reuland 1993)

²This ontology is based on, among other things, Sportiche 2012, Charnavel 2012, and Ahn 2015

- ◆ In addition, they also tend to agree that **reflexive pronouns are syntactically manipulated as any other (pronominal) DP**
 - ▶ Predicting very high similarity between the surface structure of “Ken injured himself” and “Ken injured Bill”



- ◆ A unified approach ought to be pursued to the maximum extent that the data allows
 - ▶ But we should be ready for the possibility that it ought to be abandoned
 - ◆ I’m going to diverge from the past analyses here
 - ▶ On the basis of prosodic facts in English
 - ▶ Arguing that English distinguishes a type of reflexive, which hasn’t been said to exist in English in past literature
 - ⇒ **Locally-bound, subject-oriented reflexive anaphors**
 - ◆ By the time we’re done, we’ll see that English differs only trivially from languages like French, Greek, Kannada, etc.³
 - ▶ In these languages, clauses with **locally-bound, subject-oriented reflexivity** exhibit obviously distinct morphosyntactic patterns
- (17) a. Jean **se** présente à Marie
 Jean SELF introduce to Marie
“Jean introduces himself to Marie”
- b. **afto-** sistinome sti Maria
 SELF-introduce.NACT.1S to.the Maria
“I introduce myself to Maria”
- c. rashmi tan -age-taane hari-yannu pariçaya -maaDi-**koND** -aLu
 Rashmi SELF-DAT-INTNS Hari-ACC introduction-do -SELF.pst-3SG.F
‘Rashmi(F) introduced Hari(M) to herself’
- French has special clitic *se*, Greek has a prefix *afto* and a non-active voice, Kannada has a verbal suffix *koND*
 - ◇ All of these are heavily syntactically constrained, and in a similar ways

1.2. Twin Reflexives and Prosody

- ◆ English does not appear to have a special form for expressing reflexivity that is constrained in the same way
 - ▶ **This is an illusion**
- ◆ Where other languages’ reflexive anaphors are partitioned morphosyntactically, English’s are partitioned prosodically
 - ▶ One reflexive anaphor behaves prosodically as most other constituents in the same contexts
 - ▶ One reflexive anaphor behaves (a priori) unexpectedly in its prosody – this is an **LSOR** marker
 - In broad-focus contexts, they “avoid” phrasal stress where other constituents “attract” it
 - In focused-reflexivity contexts, they bear the focal stress

³See Ahn 2015, *forthcoming* for more discussion on other languages in the same approach taken here.

♦ Turning to some data

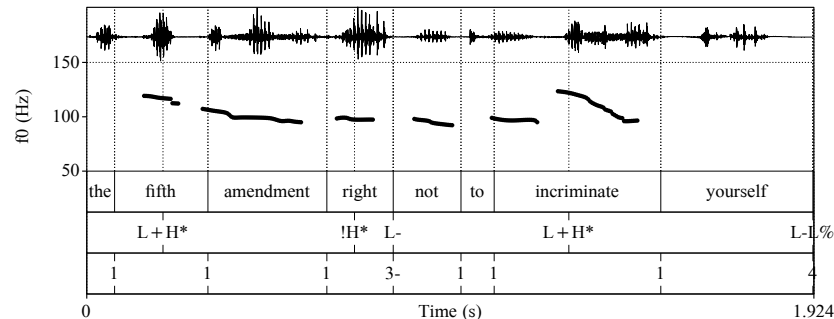
- One of these subclasses exhibits **abnormal prosodic behavior**:⁴

(18) Q: What did you learn about today?

A1: The 5th amendment right not to incriminate your *spóuse*.

A2: # The 5th amendment right not to incriminate *yoursélf*.

A3: The 5th amendment right not to *incrimínate* yourself. (unexpected phrasal stress)



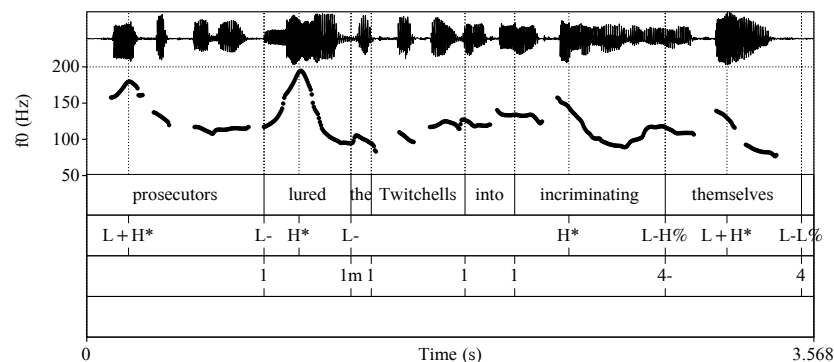
(NPR, All Things Considered, 2009.12.31)

(19) Q: Who incriminated the Twitchells?

A1: Prosecutors lured a **FRÍEND** into incriminating the Twitchells.

A2: Prosecutors lured the **TWÍTCHELLS** into incriminating the Twitchells.

A3: Prosecutors lured the Twitchells into incriminating **THEMSÉLVES**. (unexpected focal accent)



(BU Radio Corpus, file m1bs12p6)

- On the other hand, there is a second set of reflexives which prosodically **behaves as other DPs**

(20) Q: What did you learn about today?

A1: The 5th amendment right not to incriminate yourself or your *spóuse*.

A2: The 5th amendment right not to incriminate your spouse or *yoursélf*.

A3: # The 5th amendment right not to incriminate your *spóuse* or yourself. (#unexpected phrasal stress)

(21) Q: Who incriminated the Smiths and the Twitchells?

A1: Prosecutors lured a **FRÍEND** into incriminating the Smiths and the Twitchells.

A2: Prosecutors lured the **TWÍTCHELLS** into incriminating the Smiths and the Twitchells.

A3: # Prosecutors lured the Twitchells into incriminating the Smiths and **THEMSÉLVES**. (#unexpected focal accent)

⁴Underline and italics corresponds to new information: H* in MAE_ToBI (Beckman and Hirschberg 1994). Bolded small caps correspond to contrastive foci: L+H* in MAE_ToBI.

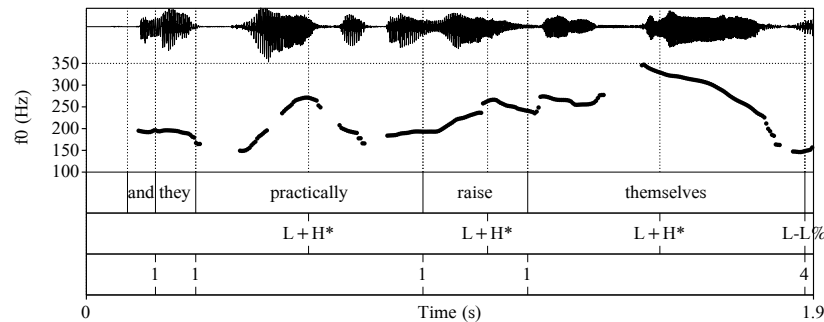
- ♦ We are going to focus on where the unexpected focal accent patterns are / are not available
 - ▶ Calling these Realizing External Argument Focus on a Reflexives (REAFR)
 - ⇒ **Core property of REAFR:** the semantic focus seems to be on the subject, but the subject has no prosodic focus, whereas the reflexive does
 - ▶ REAFR is very common; here are some more examples, where context highlights its interpretation:

(22) The twin towers didn't blow **THEMSELVES** up.

(bumper sticker)

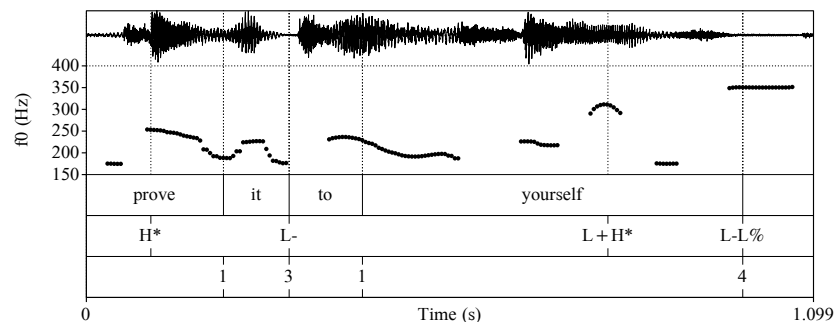
(23) They practically raise **THEMSELVES**, what with the internet and all.

(The Simpsons, Ep.233)



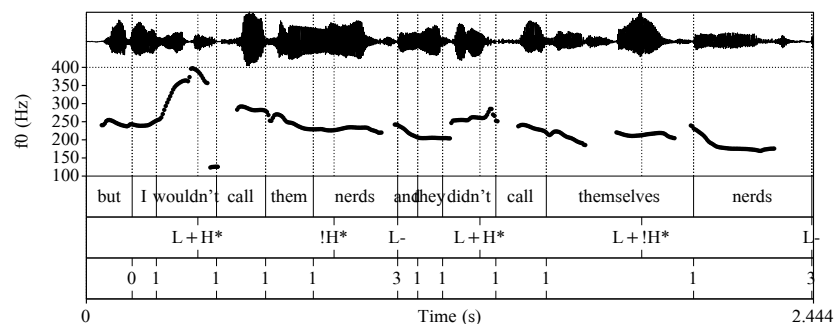
(24) Don't take our word for it ... Prove it to **YOURSELF!**

(Purex TV commercial)



- ◇ This is a particularly good example of the subject not bearing prosodic focus
- ◇ When imperative subjects are prosodically focused, they must not be silent

(25) I wouldn't call them nerds, and they didn't call **THEMSELVES** nerds. (NPR, Tell Me More, 2007.08.01)



- It is worth noting that *themselves* is not the highest pitch peak in the relevant phonological phrase (*and they didn't call themselves nerds*)
 - ◇ That's because most prominent does not entail highest pitch
 - ◇ In Yes/No questions, most prominent usually correlates to lowest pitch
 - ◇ Pitch tracks are not themselves sufficient to identify highest prominence

- ▶ There are more examples and annotated sound files in Appendix A

1.3. Laying Out the Puzzle

- ◆ Besides being unexpected in some intuitive sense, REAFR represents a large theoretical hurdle
 - ▶ A felicitous answer to a question must obey a principle like Question-Answer Congruence (QAC; Halliday 1967, Rooth 1992, Selkirk 1996, Schwarzschild 1999, a.o.):

(26) **Question-Answer Congruence:** An appropriate answer to a WH-question must be (semantically and prosodically) focused.
 - ▶ QAC can be thought of as a constraint on isomorphism between LF and PF
 - Where there is semantic focus, there is prosodic focus, and vice versa
 - ◆ Let's go to some data
 - ▶ (Let _F stand for semantic focus, and the bold underline small-caps indicate the prosodic focus)
 - ▶ QAC is obeyed in the vast majority of cases, e.g.:

(27) Q: Who did Danny mock __?

A1: Danny mocked HIMSELF_F

A2: #DÁNNY mocked himself_F

(28) Q: When did Danny __ mock himself?

A1: Danny mocked himself YESTERDAY_F

A2: #Danny MOCKED himself yesterday_F

(29) Q: Who __ mocked Danny?

A1: DÁNNY_F mocked Danny

A2: #Danny_F mocked DÁNNY
 - ▶ But the same obvious way QAC predicts the other cases, it cannot predict this one:

(30) Q: Who __ mocked Danny?

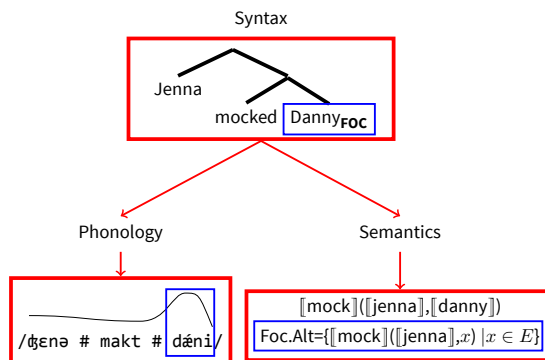
A1: #DÁNNY_F mocked himself

A2: Danny_F mocked HIMSELF

 - QAC would seem to incorrectly predict (30A1) to be the felicitous response
 - Same context question as (29), but by changing the answer to include a reflexive pronoun, we now appear to have a QAC mismatch
 - ◆ To pose the problem a different way...
 - ▶ The same utterance is ambiguous as the to answer to two very different questions

<p>(31) <u>Subj-WH, Refl. Answer</u></p> <p>Q: Who __ mocked Danny?</p> <p>A: Danny mocked <u>HIMSELF</u>.</p>	<p>(32) <u>Obj-WH, Refl. Answer</u></p> <p>Q: Who did Danny mock __?</p> <p>A: Danny mocked <u>HIMSELF</u>.</p>
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 - ▶ In a way that is generally impossible

<p>(33) <u>Subj-WH, Non-Refl. Answer</u></p> <p>Q: Who __ mocked Danny?</p> <p>A: <u>JÁNET</u> mocked Danny.</p>	<p>(34) <u>Obj-WH, Non-Refl. Answer</u></p> <p>Q: Who did Danny mock __?</p> <p>A: Danny mocked <u>JÁNET</u>.</p>
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- ⇒ QAC predicts all of these patterns except (31).
- ◆ To understand how REAFR is a problem, consider what QAC arises from
 - ▶ Assuming no LF-PF interface, this implicates focus being represented in the syntax (e.g., Selkirk 1984, Rooth 1985, Selkirk 2007, Büring 2013)



- A single syntactic focus marking feeds LF and PF effects in the same domain

- ▶ REAFR would seem to endanger one of the most robust generalizations of the Syntax-Semantics/Syntax-Phonology interfaces

1.4. Briefly: Dual Focus Prosody

- ♦ In REAFR, the subject bears **no** prosodic focus

- ▶ In addition, there is a very similar looking phenomenon in (36):

(35) REAFR

Q: Who __ mocked Danny?

A: Danny mocked **HIMSELF**.

(36) Dual Focus

Q: Who __ mocked Danny?

A: **DANNY** mocked **HIMSELF**.

- ▶ How can tell if the two are the same?

- ♦ Truly focus-marked items must result in focus pronunciation, and...

- ▶ ...the subject must be pronounced in dual focus contexts:

(37) A: Make your friend a sandwich.

B1: No, **YÓU** make **YÓUR** friend a sandwich. (Dual Focus)

B2: # No, make **YÓUR** friend a sandwich.

- ▶ ...the subject need not be pronounced in REAFR contexts with a similar meaning:

(38) A: Make me a sandwich.

B1: No, **YÓU** make **YOURSÉLF** a sandwich. (Dual Focus)

B2: No, make **YOURSÉLF** a sandwich. (REAFR)

- ▶ Despite surface similarities, the Dual Focus pattern has a much broader distribution than REAFR

- (This will be crucial this later on)

2. Properties of REAFR Anaphors

2.1. Syntactic Constraints on REAFR

- ♦ Let's summarize what REAFR is:

(39) Surface Properties of REAFR

- The antecedent occurs in the question
- In the answer, a reflexive anaphor occurs where the antecedent occurred in the question
- The reflexive anaphor bears prosodic focus, and the antecedent does not

- ▶ Intuitive Hypothesis: Because of anaphors get their reference from their antecedent, perhaps focusing reflexives is like focusing the antecedent directly

- ▶ Prediction: there should be no syntactic constraints on REAFR (as long as the anaphor can be bound in the first place)

- ▶ Spoiler: There are several syntactic constraints, which will be critical for our analysis

♦ Let us investigate the range of contexts in which REAFR is possible

- ▶ Which will lead us to rule out the intuitive hypothesis

2.1.1. External Arguments

- ▶ REAFR is **not possible** when the antecedent of binding is not an external argument (highest DP in the thematic hierarchy)

(40) Q: Who did Angie introduce __ to Ken?

A1: #Angie introduced Ken to **HIMSÉLF**. (#REAFR)

A2: Angie introduced **KÉN** to **HIMSÉLF**. (Dual Focus)

- No binding by an object

- ▶ Also when the subject is a *derived* subject

(41) Q: Which student __ seems to Ken __ to be sick?

A1: #Ken seems to **HIMSÉLF** to be sick. (#REAFR)

A2: **KÉN** seems to **HIMSÉLF** to be sick. (Dual Focus)

- No binding by a non-thematic subject
- Like Romance *se/si* (Sportiche 2011) or Kannada *koND* (Lidz 1996)

- ▶ REAFR requires **a clause-mate external argument antecedent**

2.1.2. Passives

- ▶ Having an external argument antecedent isn't sufficient – passive clause external arguments don't allow REAFR:

(42) Q: Who was Angie introduced to __ by Ken?

A: #Angie was introduced to Ken by **HIMSÉLF**. (REAFR)

(43) Q: Who was Angie introduced by __ to Ken?

A: #Angie was introduced by Ken to **HIMSÉLF**. (REAFR)

- ▶ Like (41)'s derived subject, passive derived subjects don't work

(44) Q: Who __ was introduced to Angie by Ken?

A: #Angie was introduced to **HERSÉLF** by Ken. (REAFR)

- Like Romance *se/si* (Sportiche 2011), Kannada *koND* (Lidz 1996), or Shona *zvi-* (Storoshenko 2009)

- ▶ **Passive voice disrupts REAFR's necessary syntax**

2.1.3. Islands

- ▶ Reflexives separated from antecedents by islands are incompatible with REAFR:

(45) Q: Who was talking to Emma?

A: Emma was talking to **HERSÉLF**. (REAFR)

(46) Q: Who was talking to [Sebastian and Emma]?

A: #Emma was talking to [Sebastian and **HERSÉLF**]. (REAFR)

(47) Q: Who counted five tourists [besides Lucie]?

A: #Lucie counted five tourists [besides **HERSÉLF**]. (REAFR)

- Again, like Romance *se/si* (Sportiche 2011), Kannada *koND* (Lidz 1996)

- ▶ **We need a movement analysis for the reflexives in REAFR**

2.2. REAFR Is Focused Reflexivity

- ♦ Despite the basic description we've been giving this phenomenon, REAFR is **not in fact focusing the external argument**
 - ▶ If it were, we'd expect REAFR to be able to show up wherever it is possible to do subject focus
 - (48) Q: Who embarrassed Jenna?
 A1: # JÉNNA embarrassed herself. (#Subject Focus)
 A2: Jenna embarrassed HERSELF. (REAFR)
 - (49) Q: Who embarrassed herself?
 A1: JÉNNA embarrassed herself. (Subject Focus)
 A2: # Jenna embarrassed HERSELF. (#REAFR)
 - If REAFR were simply an alternative way of expressing subject focus, (49A2) should be fine.
 - ▶ REAFR is sensitive whether reflexivity is given
 - Conclusion: REAFR requires reflexivity to be focused information
 - ▶ **REAFR is focused reflexivity**
- ♦ At the same time, the anaphor must **not** be the locus of semantic reflexivity
 - ▶ If it were, focusing the anaphor – no matter where it occurs – should yield focused reflexivity⁵
 - In other words, if reflexive anaphors were the locus of semantic reflexivity, reflexivity focus should possibly arise wherever reflexive anaphors are focused
 - We just saw that doesn't work in section 2.1
 - ▶ So where is reflexivity?
 - The answer is tied up in why REAFR is constrained syntactically in the way it is

2.3. Interim Summary

REAFR ANAPHORS MUST...

- ▶ not be in a passive clause
- ▶ be able to move to near its antecedent
- ▶ have an external argument antecedent
- ▶ occur where reflexivity is focused

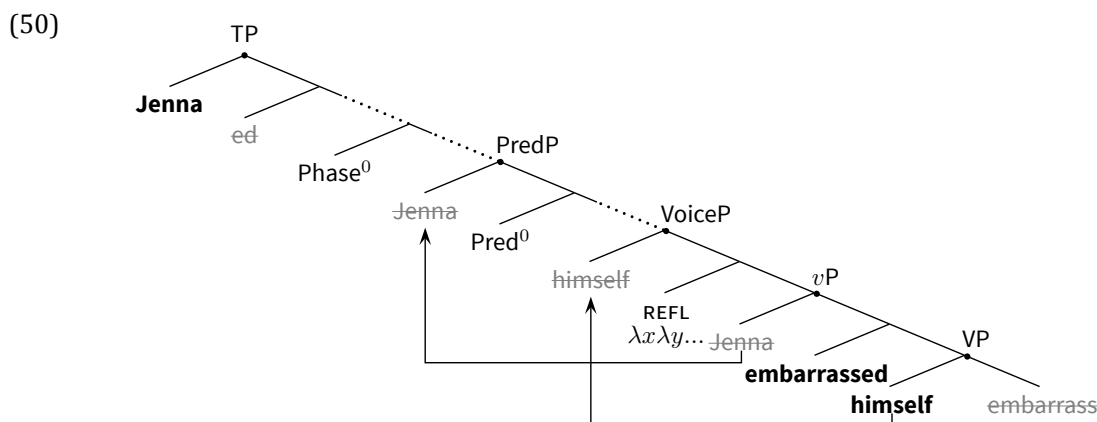
- ▶ See Kayne 1975, Burzio 1986, Lidz 1996, Sportiche 2010, Ahn 2015 for a very similar properties in a wide range of languages (modulo the focus property of REAFR)
- ▶ In addition, we have evidence that reflexive anaphors are not the locus of semantic reflexivity

⁵This proposal *could* work if only some anaphors are the locus of semantic reflexivity, while others are not. This begs the question of which anaphors can be the locus of semantic reflexivity. Addressing this is critical to make this work, but it is certainly possible to do. See Appendix F for a sketch of how such a proposal would work. Importantly, such an approach is not much more than a notational variant of the analysis set forth here.

3. Giving Reflexivity a Voice

3.1. Analyzing REAFR Properties

- ♦ To account for all the properties of REAFR, we need a syntactic derivation that is sensitive to external arguments, subjects, Voice, movement and focused reflexivity
 - ▶ In (50), this is achieved (in part) by movement of the anaphor to a Reflexive head



- ♦ In this analysis, REFL is a Voice head which occurs where Voice heads occur
 - ▶ Meaning passives are in complementary distribution
 - ✓ REAFR anaphors must not be in a passive clause
- ♦ The REFL head is the instantiation of semantic reflexivity
 - ▶ It causes constraints the assignment function⁶ so that the reflexive anaphor will refer to the subject
- ♦ It has a denotation like (51):⁷

$$(51) \quad \llbracket \text{REFL} \rrbracket = \lambda P_{\langle st \rangle} \lambda x_{\langle e \rangle} \lambda y_{\langle e \rangle} \lambda e_{\langle s \rangle}. \text{IDENT}(x, y) \ \& \ P(e)$$
 - ▶ Anaphors are not responsible for semantic reflexivity, they are arguments of it
 - To saturate this function, the anaphor must move from its thematic position to VoiceP
 - ✓ REAFR anaphors must be able to move to near its antecedent
 - ▶ An external argument is the only the only argument that will move up high enough to saturate the second of REFL's arguments
 - Only subjects move above Voice, to PredP, the small-clause subject position (Bowers 1993, 2001)
 - ✓ REAFR anaphors must have an external argument antecedent
 - ▶ Focusing this yields the alternatives where the two coidentified arguments are disjoint
 - REFL is not a valency reducer
 - REFL is focused, REAFR interpretations are obtained
 - ✓ REAFR anaphors must occur where reflexivity is focused
 - ▶ ... but why does the anaphor bear the focal accent?

3.2. Focusing Silent Material

- ♦ In this analysis, the English REFL Voice⁰, which is semantically focused in REAFR, is *silent*
 - ▶ A logical question: **How do we realize the focus of a silent head?**

⁶Or whatever is used to assign referential values to pronouns

⁷See Appendix E for some alternatives.

♦ **Focus-marked silent heads \Rightarrow pitch accent on the specifier**

- Laka (1990) argues for this explicitly, with polarity focus data:

- (52) a. [Σ P **IRUNE** Σ_{Foc} [da etorri]]
 IRUNE AFF_{Foc} has arrived
 ‘Irene **DÍD** arrive’
 b. [Σ P Irene **BA** $_{\text{Foc}}$ [da etorri]]
 Irene **SÓ** $_{\text{Foc}}$ has arrived
 ‘Irene did **SÓ** arrive’

- Polarity focus in Basque is borne by the specifier of Σ P, when Σ is silent, but by Σ when it’s overt

- English emphatic polarity provides further support for this, due to *too* and *not* being in Spec, Σ P (e.g. Sailor 2011, 2014)⁸

- (53) a. Sally did [Σ P **TÓO** Σ_{Foc} [vP burn me]]
 b. Sally did [Σ P **NÓT** Σ_{Foc} [vP burn me]]

- Even though *too* and *not* bear the polarity focus, they themselves are not the polarity head

- Ahn (2010) also finds evidence for this, from emphatic reflexives:

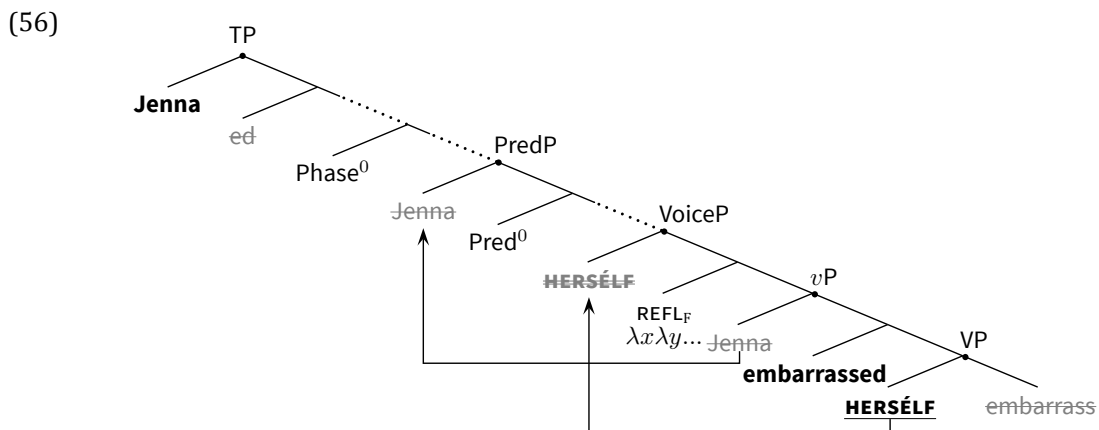
- (54) a. No student did it [ID_{Foc} **HIMSÉLF**].
 b. Jack [ID_{Foc} **HIMSÉLF**] arrived.

- Emphatic Reflexives are arguments of a silent Focus-marked functional head, ID , so the reflexive anaphor bears the focus pitch accent

- Finally, McCloskey 2014 shows that Irish weak subject pronouns bear the focus accent of the verb stem (which includes polarity)⁹

- (55) ... agus throid **SÉ** ar mahithe le saoirse
 ... and fight.PAST he for freedom
 ‘(They regard him as a man who fought for freedom...) and he **DÍD** fight for freedom’

♦ So, the Focus-marked silent REFL Voice⁰ in (56) **yields focus on its specifier: the reflexive**



- The reflexive anaphor is spelled out in its lower position...

- ◇ So when one copy of a chain gets marked prosodically in one way, all copies must
 ◇ (See McPherson 2014 and Selkirk 1996 for similar ideas)

- REAFR is **not a counterexample** to Question-Answer Congruence

⁸Furthermore, any theory that might put do-support *do* and other V-to-T material in the specifier of Σ P (perhaps those that have abandoned head-movement) would provide even further support for this head-to-specifier focus transference.

⁹McCloskey doesn't analyze these as a result of focus transference in my way of thinking, but it bears a lot of similarity to English and Basque, so it's not impossible that it works similarly.

- Once we understand the underpinnings of REAFR and QAC
- QAC results from a single exponent of focus in the syntax being interpreted separately by PF and LF
- REAFR is the mechanical reflex to a problem of expressing phonological focus for silent things
- Any other apparent violations of QAC should be pursued as requiring a better understanding of the syntactic/semantic structure
 - ◊ As in the works cited in §3.2

The fact that semantically focused silent head yields a prosodically focused specifier, coupled with the fact that certain reflexives move to VoiceP, derives REAFR prosody

4. Conclusion

- ♦ Local, Subject-Oriented Reflexive anaphors (e.g. REAFR anaphors) are defined by movement to a REFL VoiceP
 - ▶ This means **Local Subject-Oriented Reflexivity involves two distinct structural atoms**:
 - ① **REFL Voice** (more obvious in many languages, e.g. Greek, Finnish, Kannada)
 - ② **the moving anaphor** (more obvious in many languages, e.g. Romance, Czech)
 - ▶ This derives the many syntactic commonalities REAFR has with e.g. Romance *se/si* (cf. Sportiche 2011)
 - It's just that REAFR reflexives are segmentally homophonous with the others
 - At the same time, they are formally distinct
 - ▶ The properties of these atoms predict the behavior of a HUGE variety of language's LSOR markers
 - Danish, Inuit, Japanese, Kannada, Kharia, Lakota, Norwegian, Russian, Shona, ...
 - ◊ (see Appendix H)
 - Unifying English with these languages
 - ◊ (Ahn 2012a,b, 2015, *forthcoming, submitted*)
 - ▶ Not all languages express both atoms obviously, and but closer investigation can uncover it
- ♦ **The anaphor is not the locus of semantic reflexivity**
 - ▶ Contra many popular semantic analyses of reflexives
 - (e.g. Bach and Partee 1980, Keenan 1988, Szabolcsi 1992, Schlenker 2005, Spathas 2010, etc.)
 - ▶ (Or, if it is, then it is only the locus of semantic reflexivity just in case it moves to VoiceP; see fn. 5)
- ♦ The “unexpected” prosodic patterns are in fact predicted straightforwardly
 - ▶ **Syntax-prosody mapping gives us these facts for free**
 - Due to QAC, which is a consequence of our architecture
 - REAFR is not an exception, because we have a deeper understanding of LSOR structure
 - ▶ No need for stipulations on the behaviors of certain (classes of) words
 - (Phonology still impacts prosodic structures in its own right; but the result of direct syntax-prosody mapping first provides the input to any additional phonological operations)
 - ▶ This allows the theoretician / hearer / learner rather transparent access to abstract levels structural representations, based on the acoustic signal

THREE TAKE-AWAY MESSAGES

- ♦ Prosodic structure is a transparent cue for syntactic structure
 - The same way that interpretation and word order are
- ♦ English reflexive prosody reveals a syntax that is more obvious in other languages
 - REFL Voice + moving anaphor + exceptionless syntax-prosody interface
- ♦ Local, subject-oriented reflexivity is distinguished even in a huge number (all?) languages
 - Because LSOR anaphors are licensed differently from others
 - via REFL Voice
 - With others by some other licensing mechanism(s?)

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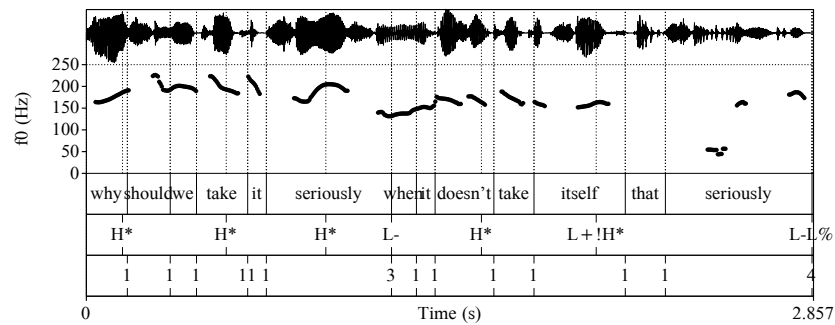
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APPENDICES

A. More Prosodic Data

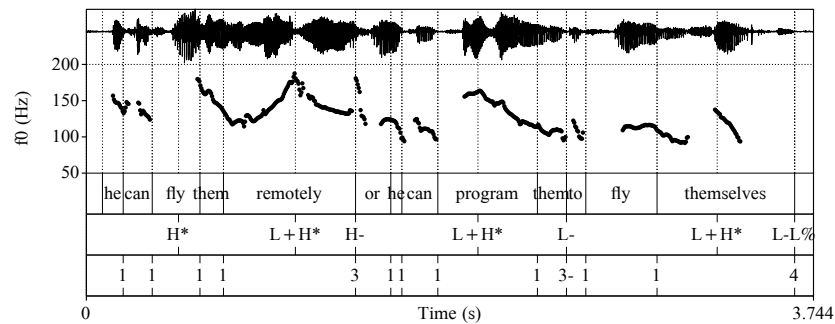
♦ REAFR examples:

(57) Why should we take it seriously when it doesn't take **ITSELF** seriously?



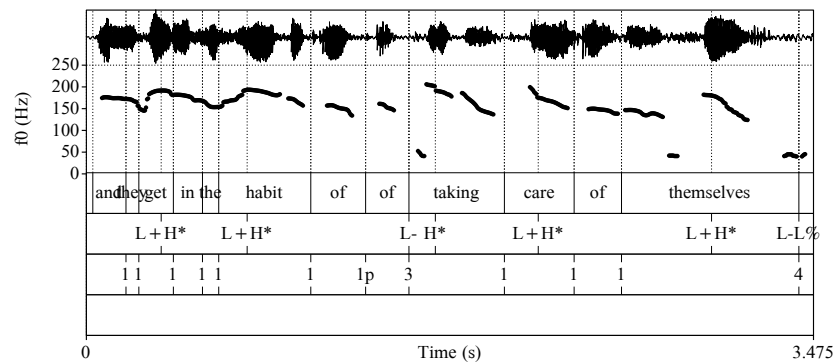
(NPR, Tell Me More, 2008.07.03)

(58) He can fly them remotely, or he can program to fly **THEMSÉLVES**.



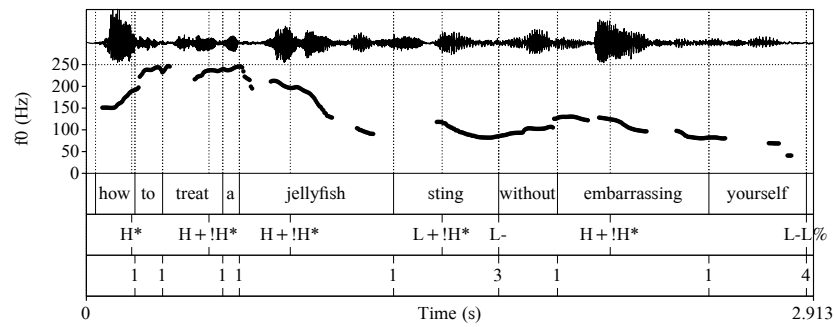
(NPR, Weekend Edition, 2014.05.10)

(59) And to get in the habit of- taking care of **THEMSÉLVES**.

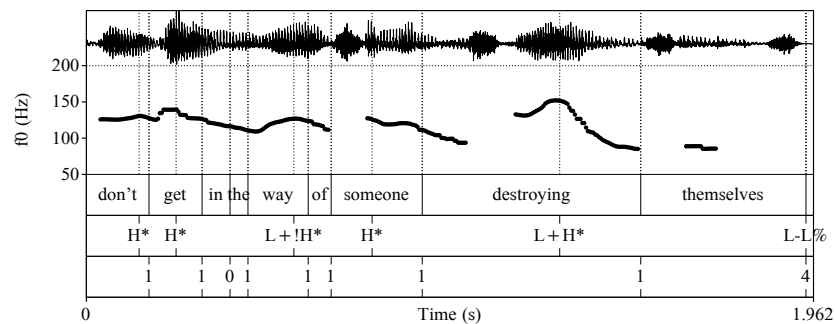


(English Broadcast News Speech corpus, file ew970708-6909)

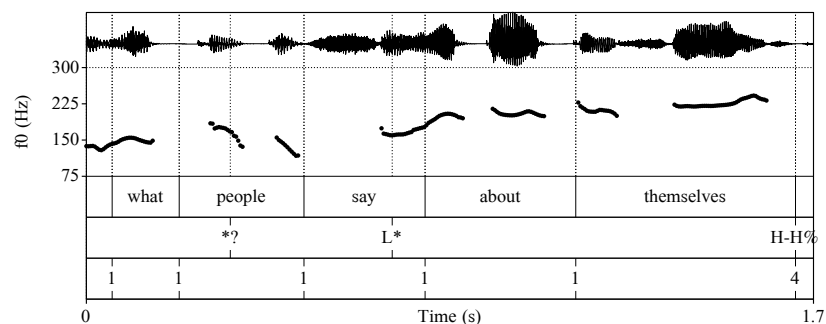
♦ Phrasal stress examples:

(60) How to treat a jellyfish sting without **embarrassing** yourself.

(NPR, Wait Wait Don't Tell Me, 2011.06.04)

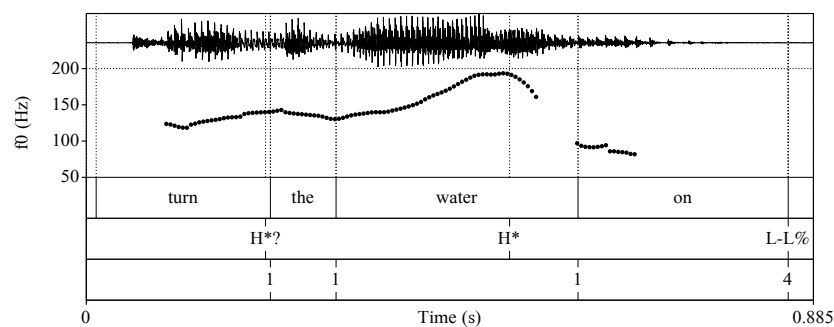
(61) Don't get in the way of someone **destroying** themselves.

(NPR, All Things Considered, 2011.11.14)

(62) He's conducted several studies that explore this contrast between [what people **sáy** about themselves] and [their actual behavior].

(NPR, Morning Edition, 2014.04.10)

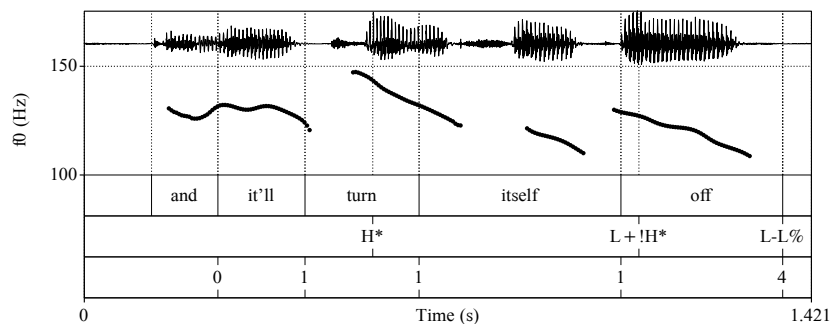
► In verb-particle constructions, phrasal stress usually falls on the object:

(63) Turn the **wáter** on.

(NPR, Weekend Edition, 2012.08.11)

- ▶ But when the object is reflexive, it is extrametrical, and stress falls on the particle

(64) and it will turn itself **óff**.



(NPR, Talk of the Nation, 2010.10.11)

B. Some Inadequate Alternative Analyses of REAFR

- ◆ In this section, we have two more inadequate alternative analyses
 - ▶ The second of the two seems more promising, and perhaps there is a connection not yet established.

B.1. REAFR Is Not Predicated on Object Focus

- ◆ We've already seen that REAFR sentences are homophonous with object-focus sentences
 - ▶ Maybe because the two are formally equivalent on some level
 - ▶ And the difference in interpretation results as a kind of a transformation on the more straightforward (65A)
- (65) Johnny burned **HIMSÉLF**.
 Q: Who did Johnny burn?
 A: Johnny burned **HIMSÉLF**. (Obj.Foc.)
- (66) Q: Who burned Johnny?
 A: Johnny burned **HIMSÉLF**. (REAFR)

- ◆ If REAFR is built on object focus, REAFR be unavailable in contexts where object focus is unavailable
 - ▶ This prediction isn't met: object focus interpretation is out, but REAFR works in (67)
- (67) 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.)

We want a representation of REAFR that is formally distinct from object focus

B.2. REAFR Is Not Predicated on Emphatic Reflexives

- ◆ REAFR is a special use of (obligatorily) focused reflexive pronouns
 - ▶ English makes use of obligatorily focused reflexive pronouns in another domain: Emphatic Reflexives
 - ▶ There are two kinds of ERs
- (68) Xavier prepared it ^{vp}**HIMSÉLF**, ^{dp}**HIMSÉLF**.
- An adverbial (^{vp}ER) that occurs in a fixed postverbal position, meaning something like “without help”
 - An adnominal (^{dp}ER) that can be floated to a position to the right of the ^{vp}ER, meaning something like focus on the antecedent
- ▶ Maybe REAFR structures, like (69a), are built on an Emphatic Reflexives structure, like (69b)

- (69) a. John hit **HIMSÉLF**.
 b. John hit himself **HIMSÉLF**.

- ♦ Since Emphatic Reflexives are subject to certain structural constraints (Ahn 2010), REAFR should be similarly constrained

- ^{vp}Emphatic Reflexives are limited to cases where their antecedent is an Agent:

- (70) a. Which nurse cured you ^{vp}herself? (Agent)
 b. #Which medicine cured you ^{vp}itself? (Cause)
 c. #Which student likes linguistics ^{vp}himself? (Experiencer)

- However, REAFR is compatible with any type of external argument:

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

- ^{dp}Emphatic Reflexives are limited to cases where their antecedent is a type-⟨e⟩ DP

- (74) a. #Every mother washed every baby boy ^{dp}himself. (Quantified Phrase)
 b. #Nice girls would want to marry a schizophrenic ^{dp}himself. (Non-spec. Indef.)

- However, REAFR is compatible with an antecedent DP of any semantic type

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

- REAFR has a **broader distribution** than either Emphatic Reflexive would allow¹⁰

We want a representation of REAFR where the reflexive is not an adjunct Emphatic Reflexives

- (We have not ruled out the other direction – that Emphatic Reflexives could be predicates that contain REAFR structures.)

C. REAFR Answers

- ♦ In what sense is a REAFR response a compliant answer to the WH question that may prompt them?
- ♦ The assertion made by REAFR answers serves to deny a presupposition that such questions carry with them
- Namely the presupposition that the event is non-reflexive
 - I assume that a question like (110Q) has an ordinary semantic value like (77a), following Rooth 1992, while presupposing/implicating something like (77b)

¹⁰In addition, a ^{dp}ER could not be adjoined to a silent pronoun in (75)–(76), as ^{dp}ERs are additionally highly degraded when attached to (non-nominative) pronouns (Lasnik and Sobin 2000):

i. *Charles gave {you ^{dp}yourself/him ^{dp}himself/himself ^{dp}himself} the reward.

(77) Who was distracting Paul?

- a. $\{\text{distract}(e) \ \& \ \text{theme}(\text{Paul}, e) \ \& \ \text{agent}(x, e) \mid x \in E \wedge \text{person}(x) \}$
- b. $\text{NON-IDENT}(x, \text{Paul})$

- ◆ To support the notion that REAFR can be used to deny presuppositions in this way, consider the data in (78):

(78) (Context: *Paul's grades have been suffering since he started dating Jenna. Person A assumes that Paul was being distracted by Jenna, but Person B knows that the person distracting Paul was Paul. Suddenly, Paul's grades improve.*)

A: Oh, Jenna must have stopped distracting Paul.

B: (Actually...) Paul was distracting **HIMSELF**.

- ▶ A's statement in (78) clearly presupposes that the theme and agent of *distract* are non-identical
 - That *Paul* is the theme and *Jenna* is the agent
- ▶ B's response focuses the identity function to deny this presupposition
 - B's response is especially natural if '*Actually...*' is used to indicate that a presupposition will be denied.
- ▶ Similarly, it is natural to use '*Actually...*' in the same way in REAFR responses to questions

(79) Q: Who was distracting Paul?

A: Actually... Paul was distracting **HIMSELF**.

(REAFR)

- When it comes to being an answer to questions, REAFR denies the presupposition
- At the same time, the ordinary value of (79A) also provides the listener with the information he/she was seeking
 - ◇ (Because of the nature of the identity function)

D. Alternative Derivation: LF Movement

- ◆ In some frameworks, LF movement (i.e. post-syntactic movement for interpretation) exists as a grammatical operation
 - ▶ If such frameworks, it is *in principle* possible that reflexives *LF-move* to VoiceP
 - ▶ There have been many proposals of LF-movement of reflexives (e.g. Lebeaux 1983, Chomsky 1986b, Reinhart and Reuland 1993, Reuland 2011)
- ◆ However there is evidence that such movement must be in the narrow syntax
 - ▶ Such LF movement cannot have phonological effects (w.r.t. word-order or prosody, for example) in a Minimalist architecture
 - Since there is no LF-PF interface (besides the narrow syntax)
 - So, any language with **observable PF effects** of the movement to VoiceP provides **evidence that this movement takes place in the narrow syntax**
 - ▶ Additionally, LF movement has sometimes been claimed to be island-insensitive
 - If true, this reflexive movement cannot be the sort of LF movement that is island-insensitive
 - Because there are observable island effects with reflexive movement
- ◆ **Present evidence suggests that reflexive movement to VoiceP takes place in the narrow syntax**
 - ▶ At the very least in the languages with PF effects
 - ▶ It is theoretically possible that languages vary as to whether this movement takes place at LF or in the narrow syntax
 - ▶ I have yet to find any evidence supporting this kind of variation

E. Alternative Derivation: Lambda Abstraction

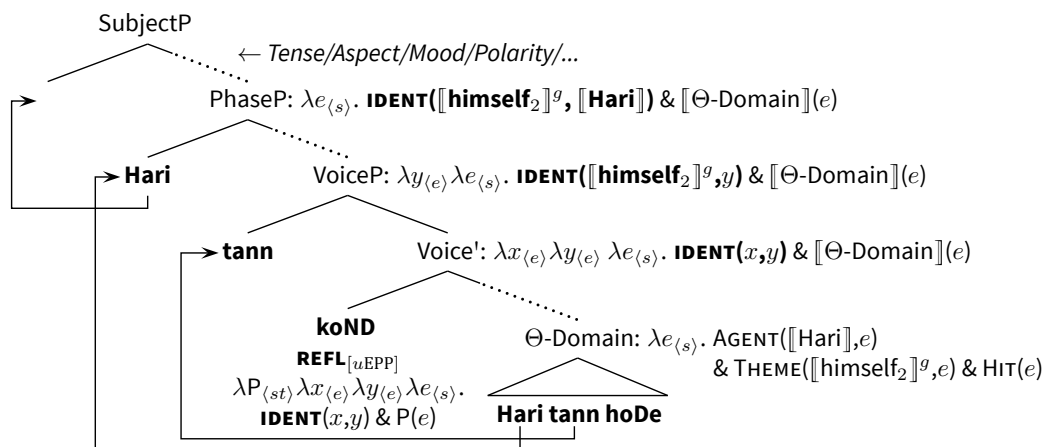
- ◆ This paper assumes a theory in which any given element can compose with multiple semantic functions, as the result of movement

- As in (81) for the Kannada in (80):

(80) hari tann-annu hoDe-du-**koND**-a
 Hari self -ACC hit -PP-**LSOR**-3SM
'Hari hit himself'

[Kannada, Lidz 1996]

(81)

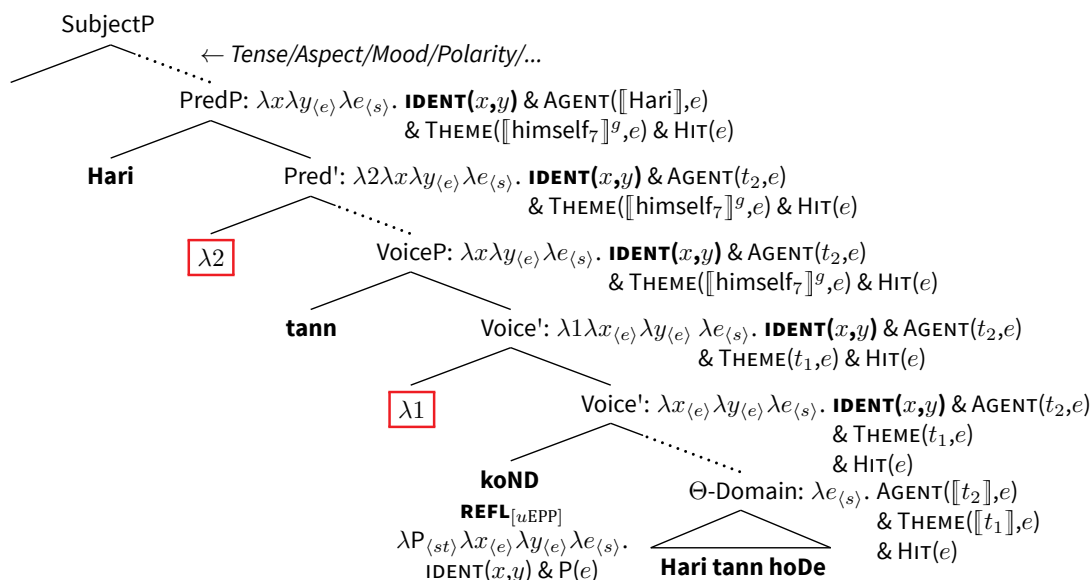


- Even if this can be convincingly shown to be impossible, this derivation could still be re-cast using what (in this author's opinion) amounts to **a notational variant, using lambda abstraction** (e.g. Heim and Kratzer 1998)

- ◆ We will entertain a few possibilities using lambda abstraction

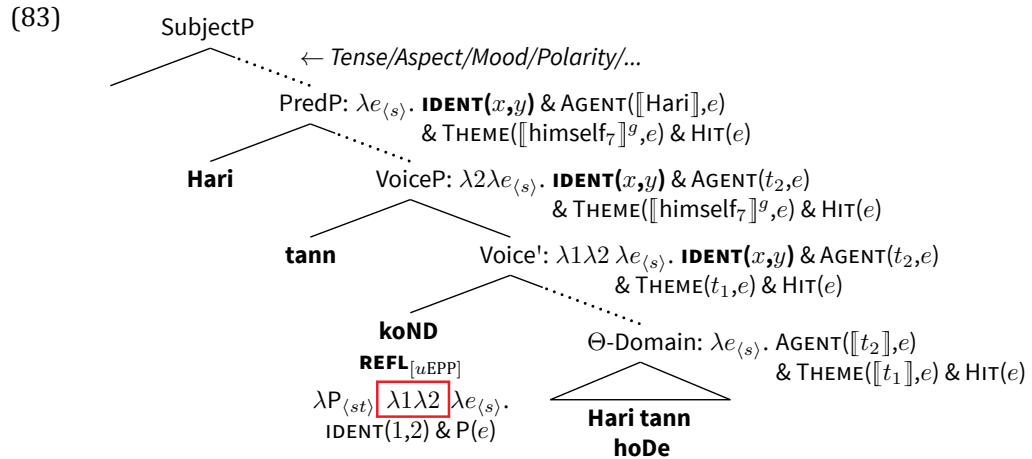
- As a first pass, let us attempt a derivation identical to (81), with the exception that lambda abstraction is used (**Note that (82) does not converge**)

(82) *

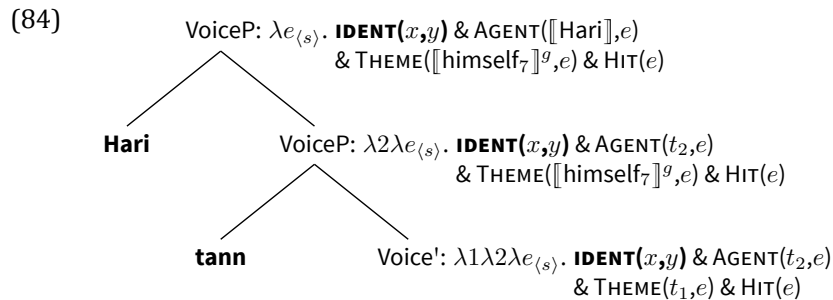


- The problem with this kind of derivation is the λx and λy introduced by the REFL function will not have the chance to be saturated (at least not by the right constituent) – **the introduction of $\lambda 1/\lambda 2$ outside of the REFL head essentially block this**
- Another possibility is that the $\lambda 1/\lambda 2$ are not added outside of REFL

- INSTEAD, they are bundled with in the Voice head, replacing the λx and λy in (82), as in (83):¹¹



- ◇ Essentially what we've done here is say that, if this REFL Voice head is merged, there needs to be movement of two things from in its complement to a higher position (like the EPP)
 - ▷ If there is no movement, the semantic derivation will crash
- ◇ We've reduced the *uEPP* feature to the denotation of REFL (Or at least made them effect the same result)
- Thus an analysis like (83) in which we have lambda-abstraction leans on movement in the same way as (81)
 - ◇ Both the subject and anaphor must move, in order for a derivation with REFL Voice⁰ to converge
 - ◇ It is just that the lambda-abstracts would need to be bundled with the Voice⁰
 - ▷ Not introduced separately
- It could also be that these lambdas are the EPP for both subject and anaphor
 - Meaning that the movement of both must target the VoiceP.



- Again, the movement is necessary for semantic reasons. (83) and (84) only differ in that:
 - ◇ The subject is more syntactically local to the head that introduces its lambda-abstract, and
 - ◇ It relies on the existence multiple specifiers
- ◆ Both the movement and lambda-abstraction derivations above rely on tight relations between syntactic and semantic structure
 - See Stokhof (2006)'s characterization of Montague grammar (and subsequent generative approaches to the syntax-semantics interface)

¹¹Keir Moulton in an unpublished presentation has proposed a nearly identical structure, in a similar vein: some types of reflexivity are restricted to structures in which bundling of this kind of lambda onto the Voice head has occurred. (Keir Moulton p.c.)

- “Semantics is syntax-driven, syntax is semantically motivated”
- “Any semantic object or operation on such objects has to have a correlate in the syntax, an expression or operation that triggers it. And conversely, all expressions and all structural operations in the syntax have to have a semantic correlate. Thus the autonomy of syntax is limited.”

F. Alternative Derivation: Anaphor=Reflexivizer

- ♦ Some theories assume differently that (some) anaphors are the semantic reflexivizers (Bach and Partee 1980, Szabolcsi 1987, Keenan 1988, Schlenker 2005, Spathas 2010)
 - ▶ In such a theory, the reflexivizer *himself* has a denotation like the following:

$$(85) \quad \llbracket \text{himself} \rrbracket = \lambda R_{\langle \text{est} \rangle} \lambda x. R(x, x)$$
 - ▶ I'll call this theory the Anaphor=Reflexivizer (A=R) theory; and my theory will be the Voice=Reflexivizer (V=R) theory
 - ▶ Regardless which theory is correct, the LSOR generalizations **rely on movement** – but an A=R theory does **not** inherently rely on movement
- ♦ Some approaches to binding (which are compatible with an A=R hypothesis) argue that movement does happen when the anaphor is the reflexivizer (e.g. Reuland 2011)
 - ▶ For example, to reflexive-mark the predicate, or to allow for composition to happen normally
 - ▶ If this movement is to the specifier of a REFL VoiceP, we can maintain all generalizations seen so far
- ♦ Thus an A=R theory and a V=R theory are both potential solutions, essentially as notational variants¹²
 - ▶ What must remain constant: a unique REFL VoiceP, to which reflexives move
 - ▶ What must differ: the denotations of the reflexivizer function (since structural locus differs)
 - ▶ If REFL Voice is not implemented...
 - We almost certainly lose the connection to passives
 - We potentially lose the connection to subject orientation and the linear position facts
- ♦ **IN SUMMARY**: the basic theory must say that a the semantic reflexivizer function depends on...
 - ❶ reflexive anaphors move, AND
 - ❷ movement depends on a unique Voice⁰ (REFL)
- ♦ **Thus the basic ingredients of a complete analysis of LSOR are REFL Voice and movement**
 - ▶ How exactly this is implemented theoretically is up for debate
 - ▶ The choice between V=R and A=R theories is likely decided by the choice of framework

G. Reflexives without REFL Voice

- ♦ The auxiliary ‘*be*’ is used as a perfect marker non-active voices (including REFL) in French/Italian
 - ▶ So clauses in the perfect with the LSOR marker, *si*, use ‘*be*’ as their perfect auxiliary:

$$(86) \quad \begin{array}{ccccccc} \text{Gianni} & \text{si} & \text{\`e} & \text{accusato} & & & [\text{Italian, Burzio 1986}] \\ & & & \text{LSOR} & \text{PERF.NACT} & \text{accuse.PART} & \\ & & & \text{'Gianni accused himself'} & & & \end{array}$$
 - ▶ There are other clauses with a reflexive meaning, which use the non-LSOR (‘strong form’), *se stesso*
 - ▶ These clauses, as in (87), behave as active clauses, in that they use the ‘*have*’ perfect auxiliary:

¹²Though both are potential solutions, each theory would makes some rather different assumptions in the framework. Thus evidence in favor of one framework over another could influence the choice between A=R and V=R theories. For example, if one assumes (as I do) that syntactic arguments (i.e. non-heads) are never semantic functions on their sisters, only the V=R theory is a possible candidate. (Such an assumption (predictably) constrains and complicates syntactic representations, but makes more principled the mapping of syntax onto semantics.)

- (87) Gianni ha accusato se stesso
 Gianni PERF.ACT accuse.PART himself
'Gianni accused himself'

♦ (86) and (87) show **there must be (at least) two kinds of reflexive anaphors**

- ▶ They can be used in very similar contexts, so **when do you use which reflexive?**
- ▶ Perhaps the answer is like Grodzinsky and Reinhart (1993)'s Rule I or Fox (2000)'s Rule H, which place limits on derivational possibilities in coreference:

(88) Rule H A pronoun α , can be bound by an antecedent, β , only if there is no closer antecedent, γ , such that it is possible to bind α by γ and get the same semantic interpretation.

(89) Rule I α cannot corefer with β if an indistinguishable interpretation can be generated by replacing α with a bound variable, γ , bound by β .
- ▶ To extend this to the current problem, I propose a strong hypothesis, in the form of an additional rule:

(90) Rule J REFL Voice⁰ must be merged if (i) its presence is grammatically possible and (ii) its presence doesn't change the interpretation.¹³

♦ This raises another question: why Rule J?

- ▶ This seems to be **part of a larger pattern in syntax:**

(91) **Maximize Complexity**

The more constrained derivation is utilized to the greatest extent possible.

- See also: weak/strong pronoun alternation (Cardinaletti and Starke 1999), object-shift-dependent specificity (Germanic, Adger 1994; Tagalog, Rackowski and Richards 2005), possessor raising (e.g. Nez Perce, Deal 2011; Hebrew and Romance, Landau 1999), movement for focus (Zulu, Halpert 2011; Hungarian, Szendrői 2003), etc.¹⁴
- ▶ Perhaps this is done to minimize vagueness/maximize pragmatic cooperation
 - "If you didn't use the more constrained derivation, you must have had a (structural/interpretational) reason not to"

¹³It might seem desirable to reduce Rule J to being a consequence of Rule I, since REFL Voice⁰ forces a bound-variable interpretation (see Ahn 2011). However, such an analysis faces some empirical issues, since it seems that bound variable interpretations can arise without REFL:

i. Dr. Freud told Dora about herself before he did [telt] Little Hans [about himself].

¹⁴Preminger 2011 discusses object shift for specificity as always involving a single grammatical function, which desires movement as much as possible but which does not crash the derivation if movement does not occur. This framework could be useful in explaining possessor raising, movement for focus, and possibly even English reflexive anaphors – the extra movement is done as much as possible; but, if it is not possible, the operation that would normally induce movement can still succeed.

However, if an account in the spirit of Preminger's account is correct, more would have to be said for phenomena in which different lexical items are used for moved and unmoved forms – for example, weak/strong pronoun alternations and LSOR/non-LSOR anaphor alternations in languages that use different lexical items (e.g. Romance). It would require the grammar would have to have an additional set of rules that dictates the choice lexical item for anaphor type, independent of the item's licensing conditions (a post-syntactic, late Spell-Out-type Lexical Insertion model might be appropriate).

Alternatively, it may be that there are two grammatical operations, each selecting different lexical items.

H. Cross-Linguistic Data

- ♦ Below are several the morpho-syntactic configurations that many languages employ when the local reflexivity exhibits LSOR properties:¹⁵

- (92) (Albanian, Indo-European; Williams 1988)
 Gazetari i a përkroi Agimin vetes
 journalist-the 3sgDat 3sgAcc describe.pastdef.act Agim self.DAT
 ‘The journalist₁ described himself_{1/*2} to Agim₂’
- (93) (Czech, Slavic; Toman 1991)
 Sultán si nabídl otroka
 Sultan REFL.DAT offer slave
 ‘The sultan₁ offered the slave₂ to himself_{1/*2}’
- (94) (Danish, Scandinavian; Vikner 1985)
 ... at Peter fortalte Michael om sig selv
 ... that Peter told Michael about REFL intns
 ‘... that Peter₁ told Michael₂ about himself_{1/*2}’
- (95) (Finnish¹⁶, Uralic; Ahn 2011)
 Jussi puolusta-utu -i paremmin kuin Pekka
 Jussi.NOM defend -REFL-PAST better than Pekka.NOM
 ‘John₁ defends himself better than Peter₂ does [defend himself_{2/*1}].’
- (96) (French, Romance; Sportiche 2010)
 Marie se montre Jean
 Marie REFL show.3SG John
 ‘Marie₁ is showing John₂ to herself_{1/*himself₂}’
- (97) (Greek, Hellenic; Tsimpli 1989)
 O Yanis afto- -i -ke -3sg.past
 The Yani.NOM self- destroy-NONACT
 ‘Yani destroyed himself’
- (98) (Inuit, Eskimo–Aleut; Bittner 1994)
 Juuna-p Kaali immi-nik uqaluttuup-p -a -a
 Juuna-ERG Kaali self -INS tell -IND-[+tr]-3SG.3SG
 ‘Juuna₁ told Kalli₂ about himself_{1/*2}’
- (99) (Japanese, Altaic; Katada 1991)
 Bill-ga Mike-ni zibun-zisin-no koto -o hanas-ita
 Bill-NOM Mike-DAT REFL -intns-GEN matter-ACC speak-PST
 ‘Bill₁ told Mike₂ about himself_{1/*2}’
- (100) (Kannada, Dravidian; Lidz 2001)
 rashmi tan -age-taane hari-yannu paričaya -maaDi-koND -aLu
 Rashmi SELF-DAT-INTNS Hari-ACC introduction-do -LSOR.pst-3SG.F
 ‘Rashmi₁ introduced Hari₂ to herself_{1/*himself₂}’
- (101) (Lakhota, Siouan; Charnavel 2009)¹⁷
 iwó- m- igl- -e -abl
 talk.about-1sg.II-REFL- talk.about
 ‘I talk about myself’

¹⁵It may be that some of these morpho-syntactic reflexive strategies listed here are not quite the same as what we’ve already seen. We need to be careful, as the morpho-syntactic configuration used for LSOR in a given language may have a broader distribution, beyond just LSOR. That is, due to homophony/paradigm-sharing, it might be that the morpho-syntactic configuration for LSOR (determined by REFL Voice) is surface-identical to some other kind of reflexivity (not determined by REFL Voice).

¹⁶See Ahn (2011) for argumentation that Finnish -UtU is the Voice morpheme.

¹⁷Charnavel does not give a grammatical example with two possible binders in a single clause. Instead she says that, in order to express something like ‘I talk to Anne about herself’, you cannot use the reflexive morpheme, and instead must use a paraphrase like ‘I talked to Anne and I talked about her’.

- (102) (Lango, Nilo-Saharan; Foley and Van Valin 1984)
 Lócà ò- kwá -o dákó pìr -Ø **kən**
 man 3SG.A- ask -3SG.U woman about -3SG **self**
*'The man₁ asked the woman about himself₁/*herself₂.'*
- (103) (Malayalam, Dravidian; Jayaseelan 1999)
 raaman kṛiṣṇan -ooḍə **ṭan**-ne patti **ṭanne** samsaariċcu
 Raman Krishnan-to **self**-ACC about **EMPH** talked
*'Raman₁ talked to Krishnan to himself₁/*2'*
- (104) (Marathi, Indo-Aryan; Wali and Subbarao 1991)
 Lili -ni Susi -laa **swataah** -baddall kaahihi saangitla naahi
 Lili -ERG Susi -to **self** -about anything told not
*'Lili₁ didn't tell Susi₂ anything about self₁/*2'*
- (105) (Norwegian, Scandinavian; Hellan 1988)
 Jon fortalte meg om **seg selv**
 John told me about **REFL intns**
*'Jon₁ told me₂ about himself₁/*myself₂.'*
- (106) (Russian, Slavic; Timberlake 1979)
 Ja emu skazal vse o **sebe**
 I him told all about **REFL**
*'I₁ told him₂ everything about myself₁/*himself₂.'*
- (107) (Russian Sign Language, Signing; Kimmelman 2009)
 BOY IX-A GIRL IX-B **SELF**+IX-A/*IX-B TELL
 boy girl **REFL** tell
*'The boy tells the girl about himself/*herself'*
- (108) (Sign Language of the Netherlands, Signing; Kimmelman 2009)
 BOY IX-A GIRL IX-B ABOUT **ZELF**+IX-A/*IX-B A-TELL-B
 boy girl about **REFL** told
*'The boy tells the girl about himself/*herself'*
- (109) (Tɔɔ ɔɔ ɔɔ, Niger-Congo; Culy et al. 1994)
 Mariam Omar nɛ ɔɔ **unɔ** mɔ ɔɔaa be
 Mariam Omar to word **REFL** POSS talked PST
*'Mariam₁ talked to Omar₂ about himself₁/*herself₂.'*
- (110) (Vietnamese, Austro-Asiatic; notes)
 Mary lỡ tay dán John vào **chính mình**
 Mary accidentally glue John P **intns self**
*'Mary₁ accidentally glued John₂ onto herself₁/*himself₂.'*

I. What to Look for to Find LSOR Markers

- ♦ **Find the baseline for subject-bound anaphors – there might be multiple ways of expressing these:**

- (111) The man dislikes himself.
 (112) The thieves defended themselves.

- ▶ *Prediction:* if LSOR is marked in some way in the signal, it should be detectable in (one of the ways of expressing) these kinds of examples.

- ♦ **Find out what form you get when there is an island that includes the reflexive but exclude (all silent objects referring to) the subject binder:**

- (113) The man dislikes people like himself.
 (114) The thieves defended the murderers and themselves.

- ▶ *Prediction:* whatever LSOR marking there is, it should be absent here.

- ♦ **Find out what form you get when there are multiple objects, the lower of which is in a PP, and is subject bound.**

- (115) The psychiatrist told the woman about the boy.
 (116) Which boy did the psychiatrist tell the woman about?

- ▶ If movement can be applied to “the boy” in (115), as in (116). We’ll check (117) and (118). If not, is there a preposition that can be stranded? Or is there another way of expressing this such that the thematically lowest argument can move?
- ▶ *Prediction:* whatever LSOR marking there is, it should be here (if movement (116) is possible).

- ♦ **Find out what happens when the reflexive in a PP is bound by a higher object, or by a passive subject.**

- (117) The psychiatrist told the woman about herself.
 (118) The woman was told about herself (by the psychiatrist).

- ▶ *Prediction:* whatever LSOR marking there is, it should be absent here.

- ♦ **Find out what form you get in a double object construction (if one exists), when the lower argument is subject bound.**

- (119) The principal showed the teachers the problem.
 (120) Which teachers did the principal show the problem?

- ▶ If movement can be applied to “the teachers” in (119), as in (120). We’ll check (121). If not, does “the teachers” look like a subject of a lower clause that cannot move for independent reasons? Is there another way of expressing this such that the thematically lowest argument can move?
- ▶ *Prediction:* whatever LSOR marking there is, it should be here (if movement (120) is possible).

- ♦ **Find out what happens when an object reflexive is bound by a higher object, or by a passive subject.**

- (121) The principal showed the teachers themselves.
 (122) The teachers were shown themselves (by the principal).

- ▶ *Prediction:* whatever LSOR marking there is, it should be absent here. (If the reflexive marker in (121) looks like the LSOR marker, maybe (119) in this language really involves a biclausal structure, where the higher surface-object is really a subject that can license LSOR.)