

(In Search of) Universals in Reflexive Syntax*

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CamCoS 6

1. Introduction

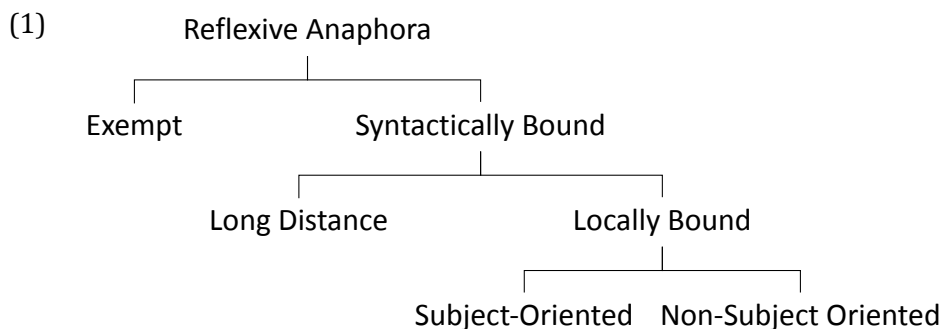
1.1. Framing the Talk

- ◆ Syntacticians: reflexivity provides a strong argument that language is organized hierarchically, and that principles of language are sensitive to that hierarchy
 - "...the sensitivity of certain anaphoric effects to sentence internal phrasal properties does not follow from the communicative function that grammars are pressed to serve..."
– (Safir 2004:4)
- ▶ Debated: **What linguistic properties is reflexivity sensitive to?**
- ▶ Debated: **How much similarity is there across languages?**

- ◆ Today: investigating shared properties in the face of typological and surface-syntactic differences
 - ▶ Argued for: **A subtype of reflexivity is constrained by locality and compositionality**
 - ▶ Argued for: **Across languages, there is a share syntactic base for this type of reflexivity**

1.2. Previewing the Analysis

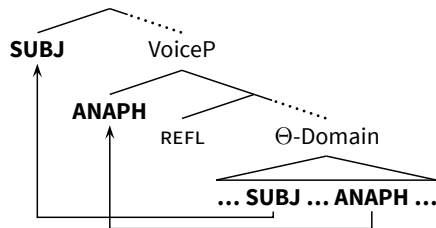
- ◆ Even within a given language, **reflexivity is not a homogeneous phenomenon**
 - ▶ At least descriptively:



*There are too many people who have contributed to this work for me to thank them all here, so I would like to thank all my colleagues who have lent their advice, voices, ears, or judgments.

- ◆ Across languages: contexts with binding by the local subject are special
 - ▶ **Local Subject Oriented Reflexivity (LSOR)** across languages have derivational similarities

(2)



- ◆ There are **two operative components** for the analysis in (2):
 - ▶ A head on clausal spine (REFL)
 - ▶ A moving anaphoric pronoun
- ◆ With the structure in (2), **we can derive...**
 - ▶ ...why local subjects matter
 - ▶ ...why LSOR binding syntax looks different from other binding configurations
 - ▶ ...the constraints on where LSOR syntax is (im)possible
 - Including the specific constraints on the antecedent
 - ▶ ...the different ways in which local subject binding can manifest in different languages
- (3) **Generalization on Reflexive Verbal Affixes**
If a verbal affix marks reflexivity, the local subject must be the antecedent of binding.
- (4) **Generalization on LSOR and Reflexive Anaphors**
If an anaphor requires its antecedent to have a certain grammatical role, then that grammatical role is that of the subject.
- (5) **Generalization on LSOR and Other Morphosyntactic Patterns**
If grammatical voice may effect morphological alternations in a certain paradigm (e.g. the agreement paradigm), then LSOR may also effect alternations in that paradigm.
- ◆ **Strong Hypothesis**: a LSOR structure like (2) arises as a result of the shape of our shared linguistic competence
 - ▶ Because traces of it can be found in a typologically diverse set of languages
 - ▶ Raising important questions about what is shared/parameterized
 - ▶ Implicating this type of structure as a result of deep universals of the human language faculty

ROADMAP

- §2 (Deriving) Syntactic constraints on LSOR
- §3 Wider typological variation
- §4 Summarizing the Current Analysis
- §5 Searching for Deeper Universals

2. Restrictions on Antecedents of Binding

- ◆ For so-called “core” cases of reflexivity, most binding theories **do not place constraints on the antecedent**
 - ▶ All that matters is whether the antecedent and anaphor (can) enter into the relevant (syntactic/semantic) licensing relationship
 - i.e., c-command or co-argumenthood

2.1. Semantic Constraints

- ◆ Semantic properties of the antecedent matter for many types of anaphors
 - ▶ Appropriately referential or not (Clem 2016)
 - (6) Tswefap (Narrow Grassfields Bantoid; Cameroon)
 - a. ?**mbe wəɓ** a ɣɔ **ni=e**
 every one FACT see self=3.SG
 ‘Every person saw himself’
 - b. **mbe wəɓ** a ɣɔ **zhə n-tswə ni**
 every one FACT see 3.SG.POSS PL-head body
 ‘Every person saw himself’
 - ▶ Perspective holder or not (Charnavel 2016, Charnavel and Sportiche 2016)
 - (7) Icelandic
 - a. Krafa **Jóns** til okkar er að styaðja **sig** við þessar aðstæður
 request John’s to us is to support SIG with these conditions
 ‘John’s request from us is to support him in this situation’ (Perspective holder = Jón)
 - b. *Skoðun **Jóns** virðist vera hættuleg fyrir **sig**
 opinion John’s seems be-INF dangerous for SIG
 ‘John’s opinion seems to be dangerous for him’ (Perspective holder ≠ Jón)

IN BOTH CASES...

- ◆ Constraints on antecedents run alongside general binding conditions
- ◆ ‘Properties of antecedent’ reduces to formal aspects of the derivation

2.2. Syntactic Constraints: Local Subject Orientation

- ◆ Are **syntactic constraints on antecedents** due to formal aspects of the derivation as well?
 - ▶ Namely, constraints on antecedents being a local subject
 (cf. languages like French, Shona, Russian Sign Language, and Kannada)

- (8) French
- a. *Pierre **se** présente **les enfants** [Sportiche 2010]
 Pierre SE introduces the children
Intended: 'Pierre is introducing the children_i to themselves_i.'
- b. **Pierre se** présente les enfants
 Pierre SE introduces the children
'Pierre_i is introducing the children to himself_i.'
- (9) Shona (Southern Bantoid; Zimbabwe)
- a. *Mufaro a- ka- **zvi-** bik -ir -a **mbudzi** [Storoshenko 2009:(23)]
 Mufaro.1 SUBJ.1-PST-**LSOR**-cook-APPL-FV goat.9
Intended: 'Mufaro cooked the goat_i for its_i own benefit.'
- b. **Mufaro** a- ka- **zvi-** bik -ir -a mbudzi
 Mufaro.1 SUBJ.1-PST-**LSOR**-cook-APPL-FV goat.9
'Mufaro_i cooked the goat for his_i own benefit.'
- (10) Russian Sign Language (Signing; Russia)
- a. *BOY IX-A **GIRL** IX-B SELF+IX-A/*IX-B TELL [Kimmelman 2009]
 boy girl REFL tell
Intended: 'The boy tells the girl_i about herself_i.'
- b. **BOY** IX-A GIRL IX-B SELF+IX-A/*IX-B TELL
 boy girl REFL tell
'The boy_i tells the girl about himself_i.'
- (11) Kannada (Dravidian; India)
- a. *rashmi **tan-age-taane hari**-yannu pariçayamaaDi-**koND**-aLu. [Lidz 2001b]
 Rashmi self-DAT-self Hari-ACC introduce SOL -3SF
Intended: 'Rashmi introduced Hari_i to himself_i.'
- b. **rashmi tan-age-taane hari**-yannu pariçayamaaDi-**koND**-aLu.
 Rashmi self-DAT-self Hari-ACC introduce SOL -3SF
'Rashmi_i introduced Hari to herself_i.'

► **No established theories of binding predict this**

- cf. Classical Binding Theory (Chomsky 1981, *et seqq.*),
 - Movement-based accounts of binding (Hornstein 2001, Kayne 2002),
 - Co-argument theories (Reinhart and Reuland 1993, *et seqq.*),
 - Semantic valency-reducing theories (Bach and Partee 1980, Keenan 1988, *inter alia*)
- **This has been seen as a benefit:** not all languages seem to differentiate LSOR from a non-LSOR

- (12) a. Ken assigned **Angie** to **herself**.
 b. **Ken** assigned Angie to **himself**.

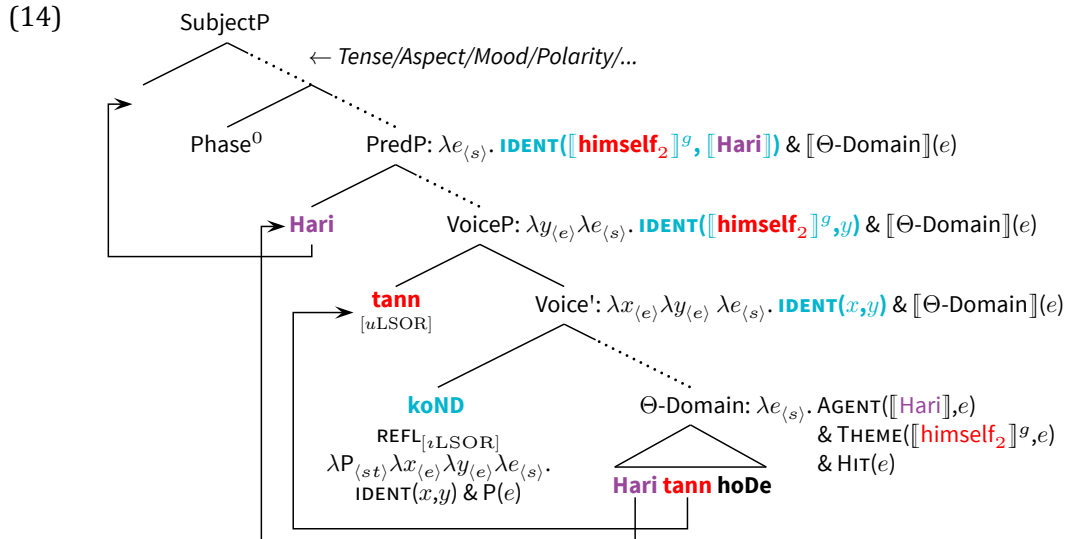
◆ How do we derive LSOR where it exists?

- Previously: language-specific explanations (typically movement) for languages that need it
 - As we will see shortly, closer investigation reveals problems with these approaches (Sportiche 2010, Ahn 2015a)
- New line: 'Properties of antecedent' reduces to formal aspects of the derivation
 - What are the formal aspects of the derivation?

2.3. Deriving Subject Orientation

- ◆ The structure of (13) is given in (14), which we will motivate shortly:¹

(13) Hari tann-annu hoDe-du -[koND]-a [Kannada]
 Hari self -ACC hit -PST.PRT-LSOR -3SM
 'Hari hit himself.'



- ▶ Some definitions/notes:

- **Θ-domain:** the predicate with all its syntactic argument structure
- **Voice:** outside of the Θ-domain (Collins 2005, Gehrke and Grillo 2009, Harley 2013)
 - ◇ Doesn't change argument structure of a predicate
 - ◇ Predicate is still transitive (cf. Baker et al. 2013, Safir and Selvanathan 2016)
- **Anaphor:** a pronoun, syntactically/semantically (Lees and Klima 1963, Hornstein 2001)
 - ◇ There are different anaphors within a language, and LSOR anaphors have a feature that drives movement
- **REFL head:**
 - ◇ a particular Voice head whose featural identity drives movement of the anaphor
 - ◇ a secondary predicate, interpretationally indicating that the event is a reflexive one, and co-identifying anaphoric pronoun and the subject²
- **Verbal Spell-Out Domain:** includes VoiceP (Harwood 2013) and the small clause subject position (Bowers 2001)
- ◆ **Idea:** The structure in (14) serves as the base for all LSOR derivations, no matter what is pronounced in a particular context/language
 - ▶ There is always an antecedent and an anaphor in LSOR derivations
 - ▶ There is always a REFL head in LSOR derivations

¹Some alternative semantic derivations, with the same constituency, are in Appendix A.1.

²See Appendix A.2 for discussion of possibly making the anaphor the semantic reflexivizer.

- ◆ Some notes on the derivation in (14):
 - ▶ Anaphors (such as *tann*, and *himself*) are **semantically interpreted as a simple pronoun**
 - They are not functions that take their sister as an argument
 - ◇ cf. RSL, where SELF overtly bears an index by being signed in the same place as the antecedent; if it was a (valency reducing) morpheme, it might not need an index³
 - As with any pronoun, a contextually-specified assignment function, *g*, determines its reference:

$$[[\text{himself}_2]]^g = g(2)$$
 - ▶ Essentially, **the IDENT function constrains the assignment function, *g***
 - In such a way that the assignments of its two arguments are (sufficiently) identical⁴
 - ▶ Syntax feeds semantics cyclically, in such a way that **movement can feed semantic operations**
 - Semantics crucially depends on syntax, and semantic computations happens regularly at small intervals during the building of the syntactic structure (e.g. Uriagereka 1999)
 - “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.” (Stokhof 2006:2067, emphasis mine)
 - **Semantic objects can compose with multiple semantic functions** by (syntactic) movement
 - ◇ The subject and anaphor each composes with its thematic licenser (before movement) and the IDENT function (after movement)
 - ◇ This isn’t novel: a movement theory of control (e.g. Hornstein 2001), a movement theory of possessor dative constructions (e.g. Lee-Schoenfeld 2006), etc. rely on this too.
 - ◇ (But see Appendices A.1 and A.2 for alternatives)

2.4. Deriving Constraints on LSOR Syntax

- ◆ LSOR relies on movement of the anaphor
 - ▶ Prediction: if the anaphor is separated from the VoiceP by an island, LSOR syntax can’t be used
 - ▶ Prediction: if the VoiceP is headed by something other than REFL, LSOR syntax can’t be used

³Thanks to Kate Davidson, for pointing this out.

⁴However this constraint is defined, it is loose enough that a proxy and its referent can be deemed as identical, since LSOR marking may occur with proxy interpretations, at least in some languages. There may be crosslinguistic variation on this point.

2.4.1. Islands Implicate Movement

- ◆ **An LSOR derivation is ruled out when the bound argument is licensed in an island** that excludes the subject

- (15) a. Lucie [s'] est vue [French]
 Lucie LSOR PERF seen
 'Lucie saw herself.'
- b. Lucie a compté cinq filles [island en dehors d' elle-même]
 Lucie PERF counted five girls outside of herself
 'Lucie counted five girls outside of herself.'
- c. *Lucie [s'] est compté(e) cinq filles [island en dehors (de) ___]
 Lucie LSOR PERF counted five girls outside (of)
 Intended: 'Lucie counted five girls outside of herself.'

- ▶ That (15c) contains an island is demonstrated by the ungrammaticality of WH-extraction from the same position: **Qui a Lucie compté cinq filles en dehors (de)?*
 - Any number of islands (e.g. coordination, complex NP, etc.) can exhibit the same effect
 - So long as the island excludes the antecedent subject completely
- ▶ Kayne (1975:ch.5): reflexive clitics "originate as pronouns in postverbal object NP position", with some formal feature(s) "ensuring them to be spelled *se* in the clitic position."

- ◆ Similar data in Kannada (Lidz 2001a, p.c.):

- (16) a. Hari tann-annu hoDe-du [-koND]-a [Kannada]
 Hari self -ACC hit -PST.PRT-LSOR -3SM
 'Hari hit himself.'
- b. *Hari [island tann-annu mattu tann-a hendati-yannu] hoDe-du [-koND]-a
 Hari self -ACC and self -GEN wife -ACC hit -PST.PRT-LSOR -3SM
 Intended: 'Hari hit himself and his wife.'
- c. Hari [island tann-annu mattu tann-a hendati-yannu] hoDe-d -a
 Hari self -ACC and self -GEN wife -ACC hit -PST-3SM
 'Hari hit himself and his wife.'

- ▶ Unlike the French examples, the reflexive movement in (16a) is string-vacuous
 - Perhaps because reflexive movement is possibly covert (Chomsky 1995:104)

- ◆ We understand these data if **anaphoric pronouns move to be closer to the subject antecedent**

2.4.2. Derived Subjects Implicate Voice

- ◆ **Possibility:** Anaphor moves to a position s.t. only the subject locally c-commands it (cf. Pica 1987)

- ▶ Prediction: any local subject will satisfy LSOR's needs⁵
- ▶ (Note: something extra would need to be said about why the LSOR form can be morphosyntactically distinct in other ways)

- ◆ **However:** Movement is not enough

- ▶ **Derived subjects** (e.g., of passive clauses) do not license LSOR marking (Kayne 1975, Burzio 1986, Lidz 1996, Rizzi 1986a, Sportiche 2010, Storoshenko 2009)

⁵Proposals were made by Burzio 1986 and Rizzi 1986b about the derivation, to only make Italian *si* possible in LSOR contexts. However, these analyses would require assumptions that are incompatible with current understandings of syntax. (In particular, they are incompatible with VP-internal subjects.)

(17) French Passive

- a. Sa femme se décrit -a à Jean [Kayne 1975]
 His wife LSOR describe-FUT.3s to Jean
'His wife will describe herself to Jean.'
- b. Jean sera décrit à lui-même par sa femme
 Jean PASS.FUT.3s described to himself by his wife
'Jean will be described to himself by his wife'
- c. *Jean se sera décrit (à lui-même) par sa femme
 You LSOR PASS.FUT.3s described (to himself) by his wife
Intended: 'Jean will be described to himself by your wife.'

(18) Kannada Passive

- a. rama tann-inda vancis -al -paTT -a [Lidz 1996:47]
 Rama self -INSTR deceive-INF-PASS.PST-3S
'Rama was deceived by himself.'
- b. *rama tann-inda vancis -koLL -al -paTT -a
 Rama self -INSTR deceive-REFL-INF-PASS.PST-3S
Intended: 'Rama was deceived by himself.'

► We understand this data if **what drives the movement is a REFL Voice head**

- Passive requires the non-REFL Voice⁰
- LSOR syntax (for *se* and *-koND*) requires REFL Voice⁰

◆ More derived subjects, beyond passives:

► **Subject-to-Subject Raising predicates** also disallow clausemate LSOR marking

(19) French StSR (also Italian, Belletti and Rizzi 1988)

- a. Remy semble fatigué à lui-même [Sportiche 2010]
 Remy seems tired to himself
'Remy seems tired to himself'
- b. *Remy se semble fatigué
 Remy LSOR seems tired
Intended: 'Remy seems tired to himself'

(20) Kannada StSR

- a. hari (tann-age) santooshaagiruwaage kaNis-utt -aane [Lidz 1996:47]
 Hari (self -DAT) be.happy seem-PRES-3SM
'Hari seems (to himself) to be happy'
- b. *hari (tann-age) santooshaagiruwaage kaNis-koLL-utt -aane
 Hari (self -DAT) be.happy seem-LSOR -PRES-3SM
Intended: 'Hari seems to himself to be happy'

► We understand this data if StSR⁶ also requires use of a non-REFL Voice⁰

⁶Subject-to-subject raising without an intervener (e.g. with raising predicates like *tend*) does not require a non-active voice (such predicates may in fact be voice-less clauses, see Sailor and Ahn 2010), while subject-to-subject raising over an experiencer predicates (e.g. *seem*, *appear*) do involve a non-active Voice⁰. Empirical evidence from acquisition supports this: verbal passives and raising over an experiencer are acquired rather late, and at the same time, while raising without an experiencer intervener (e.g. with *tend*) is acquired much earlier (Orfitelli 2012) – thus perhaps their late acquisition has something to do with the relevant non-Active Voice⁰s and/or their syntactic effects. Additionally, it may be that the Japanese raising over experiencer predicates *mieru* and *omoeru* contain overt realizations of this non-active voice: the *-e* morpheme (Akira Watanabe, p.c.).

2.4.3. Core Properties of the Derivation

- ◆ The syntax-semantics interface is responsible for local subject orientation
 - ▶ The LSOR anaphor is co-identified with the subject, due to where each of them is merged⁷
 - Only the subject occurs in a position to saturate the second of IDENT's arguments
 - Binding between e.g. a direct object and an indirect object cannot employ REFL
 - ▶ The reflexive argument **must move to VoiceP** for the derivation to converge^{8,9}
 - This requires that it not be merged in an island within VoiceP, even in languages where there is no obvious movement (cf. (16))
- ◆ With REFL as a type of Voice, we rule out local derived subjects as potential antecedents for LSOR
 - ▶ Passive/StSR require some other (non-REFL) Voice to yield the derived subject
 - Any other Voice is in complementary distribution with REFL w.r.t. merging in VoiceP¹⁰

THIS REFL VOICE⁰ DERIVES LSOR, DUE TO FORMAL DERIVATION:

- (i) REFL's **selectional properties** and **structural height**, and
- (ii) **where subject and anaphor occur** in the derivation

- ◆ Since REFL is the formal aspect of the derivation that we need
 - ▶ **Formal statements about reflexivity do not need to make any statements about the antecedent's syntactic role**
 - ▶ Binding theories generalizations are adhered to (and perhaps derived)

3. Typological Variation in LSOR

- ◆ **Big Question:** If the same structural base applies across languages, what is the source of cross-linguistic variation in marking reflexivity?
 - ▶ There is great variety in 'strategies' for encoding LSOR across languages
 - **Anaphoric pronouns** (English pronoun-*self*), **Voice morpheme** (Greek -NAct), **Agreement morphemes** (Shona *zvi-*), **TAM morphemes** (Kharia *-ki*), ...
 - ▶ Without looking deeper, it may seem that languages are more or less free to expone reflexivity however they like

⁷Notice that nothing about this derivation requires LSOR anaphors to be bound variables; and not all bound variable readings require LSOR anaphors.

⁸This movement takes place in the narrow syntax; it is not LF-movement. See discussion of English (and for more details, see Ahn 2015a).

⁹Where the anaphor moves to might be parameterized; see 5.2.

¹⁰Alternately, there could be multiple syntactic loci of grammatical voice – this would open the door to the possibility of Reflexive voice (and all its effects) being compatible with other grammatical voices. This would predict the possibility of the grammatical effects multiple voices in a single clause (contra e.g. Sailor and Ahn 2010). And since reflexive has been found to be excluded the possibility of Passive and Reflexive Voice⁰s in a single clause, if there are multiple loci for Voices, selection or some other existing mechanisms would have to exclude the Reflexive-Passive combination (at least in languages like those investigated thus far).

- ◆ The variation can be understood as **surface variations that depend on the same structural base**:
 - ▶ LSOR derivations involve two principal constituents:
 - the LSOR anaphor and the REFL Voice⁰
 - Each of which could be overt or be silent.
 - ▶ Also, anaphor movement may (not) have obvious effects on surface word order
- ◆ This leads in principle to 6 logically possible basic types of languages
 - ▶ Each of these languages is attested, and all languages can be classified in this way:

(21) Basic Typology of LSOR

	LSOR anaphor overt		LSOR anaphor silent	
	mvt not obvious	mvt obvious	mvt not obvious	mvt obvious
REFL overt	Kannada	Greek	Finnish, Kharia	<i>logically impossible</i>
REFL silent	English, Japanese	French, Czech	Shona, Dogrib	<i>logically impossible</i>

- ◆ Beyond these basic types of languages, further variation is predicted:
 - ▶ By potential syncretism involved with:
 - REFL and other Voices, or
 - the paradigms for LSOR anaphors and other anaphors
 - ▶ Also by other interactions between REFL Voice and the other constituents that are in (indirect) selectional relationships with VoiceP
 - e.g. auxiliary, agreement, and aspectual projections

3.1. LSOR and Voice

- ◆ Across languages, LSOR does not pattern uniformly as either active or non-active
 - ▶ LSOR is controlled by a unique grammatical Voice
 - ▶ No 1-to-1 mapping between Voice⁰s & morphological paradigms (cf. Alexiadou&Doron 2012)
 - Modern Greek¹¹ (Embick 1998, Alexiadou and Doron 2012)
- (22)
- | | | |
|----|--|-------------------|
| a. | o Janis diavase to vivlio
the John read. ACT .PFV.PST.3S the book
'John read the book' | [Greek Active] |
| b. | afto to vivlio diavazete efkola
this the book read. NACT .IPFV.NPST.3S easily
'This book reads easily' | [Greek Middle] |
| c. | afto to vivlio diavastike xtes
this the book read. NACT .PFV.PST.3S yesterday
'The book was read yesterday' | [Greek Passive] |
| d. | i Maria afto-katastrefete
the Maria self-destroy. NACT .IPFV.NPST.3S
'Maria destroys herself' | [Greek Reflexive] |
- ▶ Other languages divide up Voice morphology differently

¹¹Lexical reflexives do not employ an *afto*-anaphor, but still use non-active voice morphology. Perhaps lexical reflexives in Greek involve a different REFL Voice (this can be motivated by semantic and morpho-syntactic differences between lexical reflexive and productive reflexive strategies; see e.g. Moulton 2005.). Or perhaps lexical reflexives employ a second kind of anaphor, which could have a unique phonological form (possibly silent) and which can only be used with certain predicates (as a sort of phrasal idiom). It is possible that both proposals are right: there is this second REFL which selects this second (silent) anaphor.

- Consider this tiny 3-language typology of Voice⁰s:¹²

(23) **Voice⁰s and Their Morphological Realizations with the Verb**

	PASSIVE Voice ⁰	MIDDLE Voice ⁰	REFL. Voice ⁰	ACTIVE Voice ⁰
English	non-act. morph.		act. morph.	
Greek	non-act. morph.			act. morph.
Kannada	pass. morph.	?	refl. morph.	act. morph.

- This table is meant to demonstrate that **LSOR markers can also mark other grammatical functions**¹³ (e.g. Geniušienė 1987, Lidz 1996)
- Similarly, REFL markers may look like other verbal affixes (e.g., anticausive/unaccusative markers)
 - Sakha reflexive *-n/-in* and anti-causative *-n/-in* (Ebata 2014)
 - But they REFL≠ANTICAUS

(24) <i>kör -ün</i> see -REFL	(25) <i>köh -ün</i> see -ANTICAUS
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- We must be wary of surface similarities

- Crucially, reflexive-marking verbal affixes always indirectly constrain possible antecedents of binding in the *same* way

(3) **Generalization on Reflexive Verbal Affixes**

If a verbal affix marks reflexivity, the local subject must be the antecedent of binding.

- Where the affix expones REFL Voice (because REFL yields LSOR)
- For this reason, **using a special Voice affix for reflexivity is limited** in exactly the same ways that we have seen LSOR to be limited
 - For example, the Greek non-active voice morphology is impossible when the reflexive anaphor is trapped in an island, or is not subject oriented:¹⁴

(26) Greek¹⁵

- afto-sistinome sti Maria*
self- introduce.NACT.1s to.the Maria
"I introduce myself to Maria"
- ?*sistisa [ton eafto mu ce ton Yani] sti Maria [Island]*
introduced.ACT.1s myself and the Yani to.the Maria
"I introduced Yani and myself to Maria"
- sistisa tin Maria ston eafto tis [Object Oriented]*
introduced.ACT.1s the Maria to.herself
"I introduced Maria to herself"

- To be clear, (26b-c) are ungrammatical with a non-active voice and/or the *afto-* prefix
- Additionally, the Kannada Reflexive voice suffix cannot co-occur with the Passive suffix:

¹²The way this table is set up might implicate a kind of linear continuum of voices, with Passive and Active being diametrically opposed. This implication need not hold; e.g. Voice⁰s might be better described along multiple dimensions, and a linear representation based solely on "activity" is not adequate. (i.e. It is not clear how many features ought to be used to define Voice.)

¹³In some languages LSOR marking patterns with actives to the exclusion of other voices; this is exactly what's predicted if REFL were a unique voice involved in all of these languages

¹⁴(26c) is highly context dependent; my informants found it did not find it good until explaining a context where Maria has amnesia.

¹⁵Thanks to Nikos Angelopoulos for the judgments

- (27) Kannada (Lidz 1996:47)
- a. rama tann-inda vancis -al -paTT -a [Passive Voice]
 Rama self -INSTR deceive-INF-PASS.PST-3S
'Rama was deceived by himself.'
 - b. *rama tann-inda vancis -koLL -al -paTT -a
 Rama self -INSTR deceive-REFL-INF-PASS.PST-3S
Intended: 'Rama was deceived by himself.'

3.2. LSOR and Anaphors

- ◆ In some languages, the LSOR anaphor is differentiated from other anaphors

- (28) ᠲᠠᠷᠤ ᠰᠠᠨᠤ (Culy et al. 1994:329)
- a. **Anta** [Omar ne] sa **unᠤ** -mᠣ sᠠᠭᠠ be [Subject Oriented]
 Anta Omar OBJ word REFL -POSS talked PST
*'Anta₁ talked to Omar₂ about herself₁/*herself₂.'*
 - b. Mariam [Omar ne] **ku wo** -mᠣ sa sᠠᠭᠠ be [Object Oriented]
 Mariam Omar to head 3S -POSS word talked PST
*'Mariam₁ talked to Omar₂ about himself₂/*herself₁.'*

- ◆ Anaphors can be realized differently within and across languages:

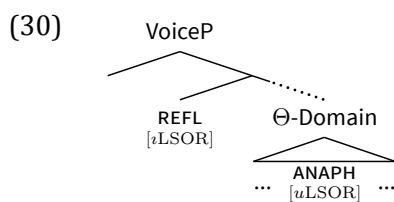
(29)	French	Japanese	Czech	English	Tongan
LSOR anaphor	se	jibunjishin	se	themselves	kianautolu
Non-LSOR anaphor	eux-mêmes	{ jibun karejishin }	sebe	themselves	kianautolu
Non-Ref. Pronoun	eux	karera	je	them	kianautolu

Variation in 3PI Pronominals Across a Selection of Languages

- ▶ Just as with REFL Voice, there can be syncretism across categories of anaphors

- ◆ **Syncretism may abound, but it is constrained by the categories of anaphors from Grammar**

- ▶ LSOR gets unique anaphors because they have particular featural makeup



- ▶ Other anaphors (like other nominals) have no featural motivation to move

- ◆ This derives (4):

(4) **Generalization on LSOR and Reflexive Anaphors**

If an anaphor requires its antecedent to have a certain grammatical role, then that grammatical role is that of the subject.

- ◆ **Benefit:** non-LSOR anaphor occurs in islands, even when local-subject bound

- (15b) Lucie a compté [island cinq filles en dehors d' **elle-même**] [French]
 Lucie PERF counted five girls outside of herself
'Lucie counted five girls outside of herself.'

- ▶ Only an anaphor without [uLSOR] can occur in an island separated from [LSOR]

3.3. LSOR and Other Exponents

- ◆ Beyond anaphors and voice morphemes, LSOR can be marked a number of ways

- ▶ Kharia TAM marking

- (31) a. yo -Dom-ki-kiyar [REFL]
 see-REFL -PST-DU
'The two of them saw themselves'
- b. lebu -ki-te yo -yo'-j [ACT]
 person-PL-OBL see-PST -1SG
'I saw the people'

- ▶ French aspectual auxiliaries

- (32) a. Sa femme s' est décrit(e) à Jean [REFL]
 His wife LSOR PERF describe.PART to Jean
'His wife described herself to Jean.'
- b. Sa femme l' a décrit(e) à Jean [ACT]
 His wife 3.ACC PERF describe.PART to Jean
'His wife₁ described him/her/it₂ to Jean₃.'

- ◆ Only LSOR (and not other types of reflexivity) trigger the markers above
 - ◆ In all of these languages, **voice has an independent relationship with the relevant paradigm**
 - ▶ Kharia has different TAM markers for active and non-active clauses
 - ▶ French passives have unique auxiliaries
 - ◆ Analysis: agreement, aspectual, and auxiliary systems are selectionally related to Voice¹⁶
 - ▶ Otherwise it could not impose selectional restrictions on them
 - (This selectional relationship may be indirect)
- (5) **Generalization on LSOR and Other Morphosyntactic Patterns**
 If grammatical voice may effect morphological alternations in a certain paradigm (e.g. the agreement paradigm), then LSOR may also effect alternations in that paradigm.

¹⁶Further paradigms that reflexive Voice is in selectional relationships with include participial projections (Kannada LSOR affix *-koND* requires a verb in the past participle form; Lidz, p.c.) and aktionsart projections (Greek *afto-* and non-active voice has certain aspectual restrictions; Alexiadou 2012).

- ◆ Since LSOR reflexivity involves a formally distinct Voice (head), **LSOR clauses may resemble actives, passives, or neither** along several dimensions:¹⁷

- ▶ e.g. voice morphology, agreement morphology, TAM markers, and auxiliary selection

(33)

LSOR clauses...	...pattern like actives	...pattern like non-actives	...pattern distinctly
Voice morph.	English	Greek	Kannada
Agr. morphology	Chickasaw		Shona
TAM Markers	Mandinka	Kharia	?
Aux. selection ¹⁸	Spanish	French	Sye(?)

LSOR effects on Morpho-Syntactic Paradigms

- ◆ **Supported Prediction:** All the morpho-syntactic effects of reflexivity in (33) are limited in the same ways as LSOR

- ▶ LSOR-specific agreement markers in Shona *zvi* cannot occur when the voice of the clause is passive (Storoshenko 2009:§5.1)

(34) Mufaro a- ka- zvi- bik -ir -a mbudzi [Storoshenko 2009:(23)]
 Mufaro.1 SUBJ.1-PST-**LSOR**-cook-APPL-FV goat.9
 'Mufaro_i cooked the goat_j for himself_{i/*j}.'

(35) *A- ka- zvi- bik -ir -w -a
 SUBJ.1-PST-LSOR-cook-APPL-**PASS**-FV
 Intended: 'She was cooked for herself'

¹⁷This division of reflexive as its own Voice distinct from Active or Passive (or Unaccusative) can explain why reflexives vary across languages, with regard to being treated like transitives (Active) or intransitives (Middle/Unaccusative/Passive/...). Specifically, this table addresses why, in Spanish-type languages, reflexives exhibit an active-like pattern, while in French-type languages, reflexives exhibit an unaccusative-like pattern. (The latter has contributed to the conclusion that French reflexives are unaccusative (Sportiche 1990); see Sportiche (2010, 2014) for specific criticisms against this.)

¹⁸Auxiliary selection in French is sensitive to reflexivity only in the perfect. All that is indicated by this row is that auxiliary selection *in some part of the grammar* is impacted by reflexivity. As for Sye, it is said to have reflexive auxiliary *ehpe* (Crawley 1998), I put a question mark here for two reasons. First, and more importantly, the data in Crawley's grammar is inadequate to argue either way whether *ehpe* is restricted to LSOR contexts or not. All the sentences given are simple non-passive mono-transitives, such as:

i. y- ehpe n- ochi [Crawley 1998:127]
 3SG:DPSTPASTdo.reflexively NOM-see:3SG
 'He/She saw himself/herself'

Second, it is not clear how grammatically similar *ehpe* is to more familiar auxiliaries; for example, the verbal complement is glossed as a kind of nominalization in Crawley (though this is, of course, an analysis).

4. The Core Analysis

4.1. Accounting for Variation

- ◆ There is a lot of variation in marking LSOR, but it is still limited
 - (3) **Generalization on Reflexive Verbal Affixes**
If a verbal affix marks reflexivity, the local subject must be the antecedent of binding.
 - (4) **Generalization on LSOR and Reflexive Anaphors**
If an anaphor requires its antecedent to have a certain grammatical role, then that grammatical role is that of the subject.
 - (5) **Generalization on LSOR and Other Morphosyntactic Patterns**
If grammatical voice may effect morphological alternations in a certain paradigm (e.g. the aspectual paradigm), then LSOR may also effect alternations in that paradigm.
- ◆ A single solution, resulting from principles of locality and selection, is the deep constraint:

CONSTRAINT ON POSSIBLE EXPONENTS OF LSOR
<p>LSOR's morphosyntactic exponents are limited to Voice⁰ and its selectional relatives.</p>

- ▶ Voice's selectional relatives include the anaphor, aspectual auxiliaries, agreement markers, etc.
- ◆ In addition, morphophonology will also add a level of variation
 - ▶ e.g. any marker may be overt or silent
 - ▶ Even if overt, syncretism (and/or homophony) may obscure its identity as an LSOR marker
 - Open question: Can all markers be syncretic/silent? (cf. Tongan) What functional pressures exist?
- ◆ Finally, each of these exponents may impose their own syntactic effects (e.g. REFL-triggered anaphor movement)
 - ▶ But such effects may not always be readily apparent (e.g. covert movement)

◆ Sidebar on Word Order and Reflexive Movement
<ul style="list-style-type: none"> ▶ We have no <i>prima facie</i> reason to expect that the movement would affect word order ▶ That is, even if the LSOR object anaphor <i>appears</i> to be in the same linear position as other objects, movement may have still taken place <ul style="list-style-type: none"> ▪ Descriptively, some movements requires other movement(s) <ul style="list-style-type: none"> ◇ Recall Holmberg's Generalization (for a summary, see e.g. Vikner 2006) ▪ It could be that the reflexive movement also requires another/other movement(s) <ul style="list-style-type: none"> ◇ And the combination of both/all of the movements ends up resulting in an unchanged string (i.e. covert movement can occur in the narrow syntax; cf. Kayne 1998) ▶ To be clear, movement (and, in our case, anaphor movement for LSOR) can be string-vacuous <ul style="list-style-type: none"> ▪ but may still be detectable, e.g. via prosody and/or interpretation

- ◆ Hypothesis: all variation is variation in lexical items (Borer-Chomsky Conjecture; Baker 2008)
 - ▶ **All variation is in lexical items** (which items have which features) **and their morphophonological properties**

VARIATION AT THE SURFACE
<p>All types of variation are <i>surface</i> effects, concealing deep universals about syntax</p> <ul style="list-style-type: none"> ▶ All the syntactic properties will remain constant across languages, because of the foundations in UG ▶ (i.e. the height of REFL, and how its denotation necessitates movement)

- ◆ **Where there was once chaos we now have order**; this theory helps us understand...
 - ▶ ...how surface manifestations of LSOR can vary
 - ▶ ...why LSOR (but not non-LSOR) can be encoded with unique verbal morphology
 - ▶ ...why LSOR may have verbal and pronominal exponents (as well as others)

4.2. LSOR and Grammar

- ◆ Like semantic restrictions on antecedents of reflexive binding, the syntactic restriction of being a local subject **reduces to formal properties of the derivation**
 - ▶ Binding theory generalizations remain in tact
 - ▶ No special BT statements in any Grammar necessary for distinguishing local subjects from other syntactic objects
- ◆ The formal properties of the derivation that give rise to the LSOR constraints are **two basic components**
 - ① **The REFL head on the spine**
 - ◇ Its formal properties determine the two core parts necessary to derive LSOR
 - ❶ (featurally unique) anaphors move to a reflexive projection (VoiceP)
 - ❷ the semantic reflexivizer is tied to REFL
 - ② **The architecture of Grammar**
 - ◇ LSOR exhibits the patterns that it does (within and across languages) simply as a result of locality of selection and the interfaces with syntax
 - ▶ Correct Prediction: LSOR contexts are constrained, in the same ways **across languages**
 - Antecedents must be local subject
 - REFL and the anaphor cannot be separated by an island
 - The clause must not be in a non-REFL Voice

5. Searching for Deeper Universals

5.1. Binding Principles?

- ◆ For LSOR: Is Principle A necessary?
 - ▶ Pr.A will always (vacuously) hold for LSOR anaphors, if the LSOR derivation is to converge
 - ▶ Is Pr.A derived? Or it is an illusion?
- ◆ Beyond LSOR: Is Principle A necessary?
 - ▶ Does the binding of these anaphors reduce to something else?
 - ▶ i.e., Can we *dissolve* Binding Theory as a formal mechanism, and instead rely on general principle of grammar?
 - Thereby not needing to stipulate it in the grammar? (ala Rooryck and Vanden Wyngaerd 2011)

5.2. Height of REFL

- ◆ Binding in LSOR is trivial because of the derivation
 - ▶ In particular the height of REFL plays a critical role
- ◆ Why is REFL so high in the structure? (\approx Why is Voice so high?)
 - ▶ Because LSOR, as a phenomenon, is inherently divorced from argument structure?
 - ▶ Because REFL's semantics would not compose otherwise?
 - ▶ Perhaps both?
- ◆ If REFL is a voice phenomenon, how might we expect it to interact with ellipsis? (cf. Merchant 2013)
 - ▶ Idea: strict interpretation of LSOR anaphors must involve voice mismatch (Ahn 2011)

5.3. Reconsidering Comparative Reflexive Syntax

- ◆ Why this structure for LSOR?
 - ▶ Present Idea: Something about LSOR is deeply connected to Voice
 - ▶ But why would LSOR be a *grammatical voice* phenomenon?
 - ▶ How would that even come to be?
- ◆ If LSOR is REFL divorced from argument structure could that vary, parametrically?
 - ▶ In the sense of Biberauer et al. (2014)

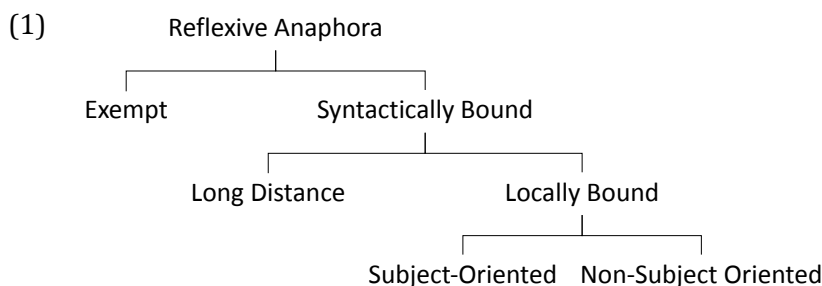
5.4. Wild Speculation: Micro/Nano-Parameterization?

- ◆ **How (dis)similar are languages to one another, under deeper scrutiny?**
 - ▶ In this analysis, LSOR arose because reflexivity was dependent on the features of a Voice head
 - ▶ Is that REFL feature always on Voice?
- ◆ Similar but different structures may emerge if there is microparametric/nanoparametric variation on its placement

- ▶ Different locations on the spine give different structures¹⁹
 - Within the theta domain ($\sqrt{V/v}$): intransitive reflexives (Reinhart and Siloni 2005)
 - Outside the theta domain (Voice): LSOR (Ahn 2015a)
 - Even higher (left periphery): perspective-sensitive anaphors (Charnavel and Sportiche 2016)
- ◆ In this way...
 - ▶ Emergent parameter: the locus of reflexive syntax/semantics
 - ▶ Unlearned aspect of the hypothesis space: reflexivity can be on some functional head on the spine
- ◆ Open question: do languages differ from one another on the locus of REFL, at a meso/micro-parametric level?
 - ▶ How much variation is there anyway, within a given language?

5.5. Wilder Speculation: Beyond LSOR?

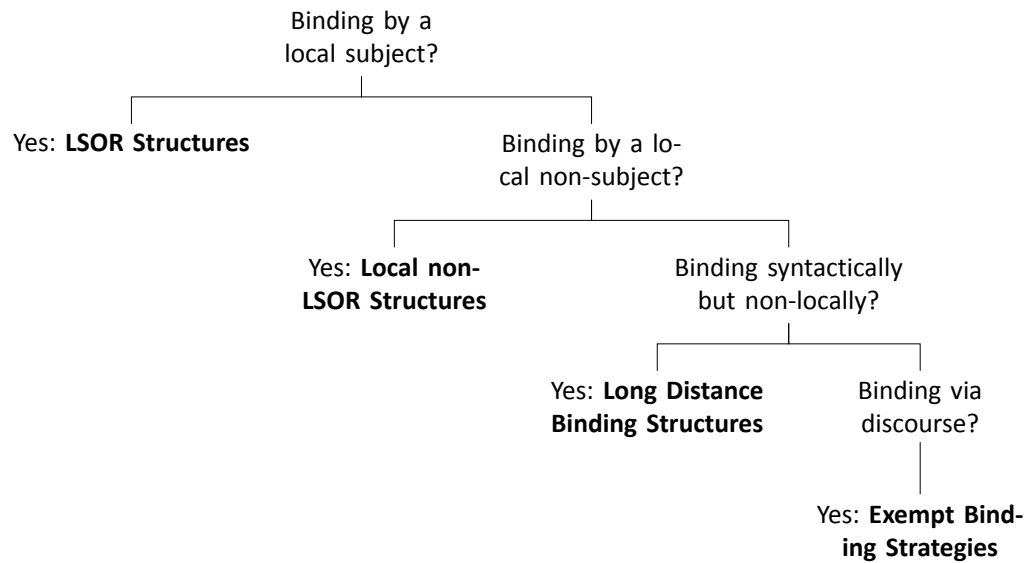
- ◆ Looking back at the ontology



- ◆ This is an ontology of reflexivity, not language types
 - ▶ But languages do seem to vary as to which types they have
 - e.g., Standard English seems to lack syntactically-bound long-distance anaphors
 - ▶ Open Question: Can (1) at the language level be conceived in some (emergent) parametric terms?
- ◆ Interesting that many languages can encode several of these
 - ▶ Are there any languages that employ only one of these strategies?
 - ▶ Why does LSOR seem to be so common? Maybe it's considered early on in the learning process?

¹⁹There is room for more fine-grained distinctions. For example, the feature could be above outside the thematic domain but lower than the left periphery, in which case you might get some LSOR properties, but without complementary distribution between a Voice with REFL and a PASS Voice. Harley (p.c.) has suggested that Hiaki might be like this.

(36)



- Crucially: answering yes does not prevent new structures from emerging
- Nor does finding yes later require revision to earlier analysis
- ▶ Reminiscent of passives?
 - Some English types are acquired early, some very late (cf. overview in Orfitelli 2012)
 - But multiple passive structures persist into adult English (cf. Alexiadou and Schäfer 2013 and papers therein)
- ◆ Open Question: Maybe we need multiple learning paths in the same domain?
 - ▶ e.g., LSOR learning paths that run in parallel to exempt ones
 - ▶ What would make this a good learning strategy?

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Atoms of Clause Structure.

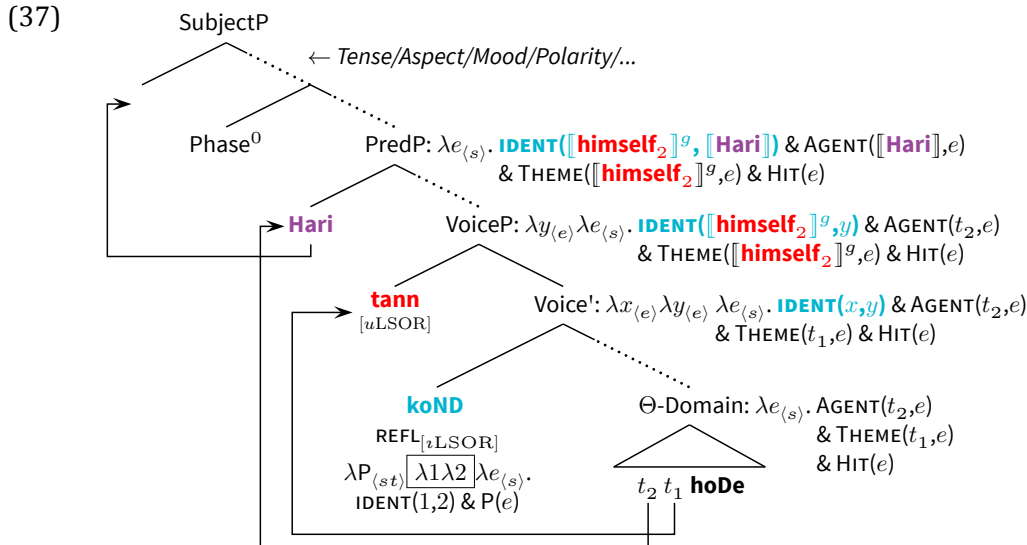
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Appendix

A. Alternative Semantic Derivation

A.1. Alternative Semantic Derivations: Lambda Abstraction

- ◆ Notational variant of main analysis, using lambda abstraction



- ◆ Essentially what we've done here is say in a different way that, if this REFL Voice head is merged, there needs to be movement of two things from in its complement to a higher position
 - ▶ Without this movement, the derivation will crash
- ◆ All the same as the analysis presented in the talk
 - ▶ The subject and anaphor must move, in order for a derivation with REFL Voice⁰ to converge
 - ▶ Tight relations between syntactic and semantic structure still necessary

A.2. 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:

(38) $[\text{himself}] = \lambda R_{(est)} \lambda x. R(x, x)$
 - ▶ I'll call this the Anaphor=Reflexivizer (A=R) approach, as opposed to the Voice=Reflexivizer (V=R) approach
 - ▶ Regardless which theory is correct, the generalizations found about LSORs **rely on movement**
 - An A=R theory does not inherently rely on movement
 - **But if movement to VoiceP happened for independent reasons...**
 - ◇ Semantic composition, 'reflexive marking' (e.g. Reuland 2011), etc.
 - **...only when the VoiceP is headed by REFL, then we can maintain all generalizations seen so far**

- ▶ What must remain constant:
 - A unique REFL VoiceP, to which reflexives move
 - 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
- ▶ What must differ:
 - The denotations of the reflexivizer function (since structural locus differs)
 - The derivation of Focus-bearing reflexives for English
 - ◊ If the anaphor were the reflexivizer, REAFR prosody/interpretation ought to be possible, even in cases where movement to VoiceP doesn't take place. (See Chapter 4 of Ahn 2015a)

B. 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:

(39) Gianni *si* è accusato [Italian, Burzio 1986]
 Gianni LSOR PERF.NACT accuse.PART
 'Gianni accused himself'
 - ▶ There are other clauses with a reflexive meaning, which use the non-LSOR ('strong form'), *se stesso*
 - ▶ These clauses, as in (40), behave as active clauses, in that they use the 'have' perfect auxiliary:

(40) Gianni ha accusato se stesso
 Gianni PERF.ACT accuse.PART himself
 'Gianni accused himself'
- ◆ (39) and (40) 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:

(41) 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.

(42) 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:

(43) Rule J REFL Voice⁰ must be merged if (i) its presence is grammatically possible and (ii) its presence doesn't change the interpretation.²⁰
- ◆ This raises another question: why Rule J?

²⁰It 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 [tell] Little Hans [about himself].

- ▶ This seems to be **part of a larger pattern in syntax**:
 - (44) The more constrained derivation is utilized to the greatest extent possible.
 - cf. FTIP (Safir 2004)
 - 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.²¹
- ▶ 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”

C. English Reflexivity

- ◆ English makes use of the LSOR derivation
 - ▶ There is no obvious movement (like Kannada)
 - ▶ There is no verbal affix (like French)
 - ▶ **And** there is no special morphological form for the anaphor
- ◆ So how can we tell?
- ◆ Prosodic differences (Ahn 2015a)
 - ▶ Non-LSOR anaphors behave (a priori) “normally” in their prosody
 - ▶ LSOR anaphors behave (a priori) “exceptionally” in their prosody

C.1. The Interpretation of Focus Stress

- ◆ Here is a robust generalization (Halliday 1967, Krifka 2004, many others)
 - (45) **Question-Answer Congruence**
The part of the answer that corresponds to the question word (the focus meaning) must also have focus marking
 - ▶ This means focus stress should fall within the constituent with focus alternatives
 - (46) Prove it to **THÉM!**
 - a. They are who you should prove it to.
 - b. # You are who should prove it to them.
- ▶ But notice that focus prosody on an LSOR anaphor is ambiguous:

²¹Preminger 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.

- (47) Prove it to **YOURSÉLF!**
- You are who you should prove it to.
 - You are who should prove it to you.

► Not just with imperatives, also in certain responses to questions:²²

- (48) Q: Who proved it to Jack?
- A: **BIÁNCA** proved it to Jack.
 - # A: Bianca proved it **JÁCK**.
 - # A: **JÁCK** proved it to himself.
 - A: Jack proved it to **HIMSÉLF**.

► **How does (47b) arise?** (Note lack of focus prosody on the subject)

◆ On the other hand, non-LSOR anaphors are not ambiguous in this way

► Antecedent is an object:

- (49) Glue the paper to **ITSÉLF!**
- The paper is what you should glue the paper to.
 - # The paper is what you should glue to the paper.

► Antecedent is a passive subject:

- (50) Q: Who was introduced to Angie (by Ken)?
- SÓNNY** was introduced to Angie (by Ken).
 - # Sonny was introduced to **HÉR** (by Ken).
 - # **SHÉ** was introduced to herself (by Ken).
 - # She was introduced to **HERSÉLF** (by Ken).

²²See Ch.4 of Ahn 2015a for a description of how (48d) is an informative answer.

- ▶ Antecedent and anaphor are separated by an island:

(51) Prove it to Jack and **YOURSELF!**

- a. You and Jack are who you should prove it to.
- b. # You (and Jack) are who should prove it to Jack and you.

- ◆ Finally, this isn't just focus on an anaphor = focus on the LSOR antecedent

- ▶ If reflexivity is discourse-given, this reflexive focus is not available

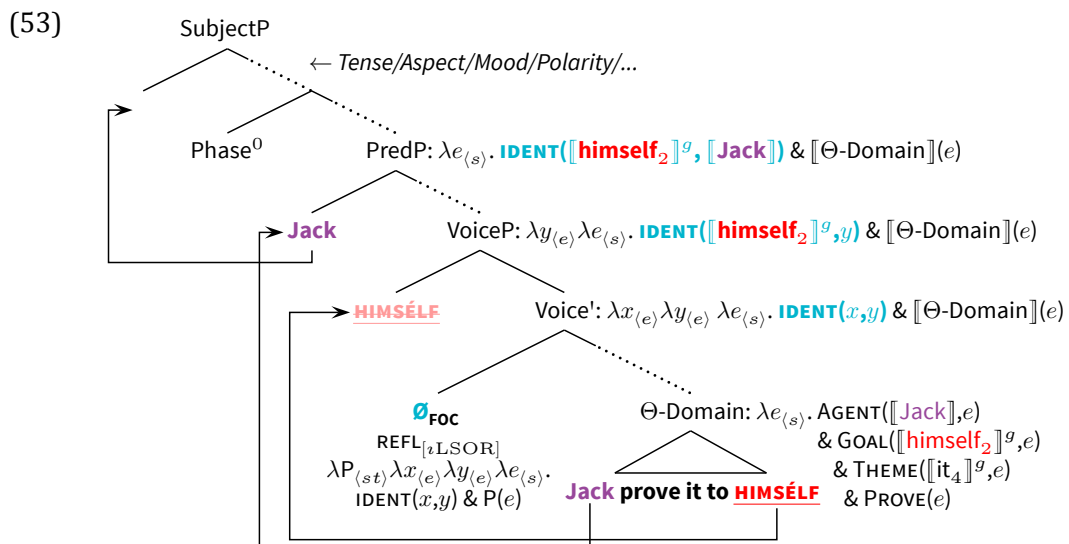
(52) Q: Who injured themselves?

- a. A: **WE** injured ourselves.
- b. # A: We injured **OURSSELVES.**

- ▶ What's semantically focused is actually *reflexivity*

- ◆ **Analysis:** REFL Voice from the is semantically focused

- ▶ Syntax of (48d):²³



- ▶ The reflexive pronoun moves to VoiceP
 - But spells out lower, in its base position (cf. Fox and Nissenbaum 1999)
- ▶ When a focused element is silent, phonology puts **focus stress on the next eligible candidate** in the input (Sailor 2014, Ahn 2015a,b)
 - The answer depends on (the input to) the stress placement rule
 - Ahn 2015a,b: the next element structurally higher than \emptyset

'UNEXPECTED' FOCUS IS ONLY AVAILABLE IN LSOR BECAUSE:

- (i) REFL is only in LSOR derivations
- (ii) REFL is what is F-marked
- (iii) REFL is an F-marked \emptyset here

²³For the homophonous answer to *Who did Jack prove it to?*, the semantic focus is on the anaphoric pronoun itself, not on REFL.

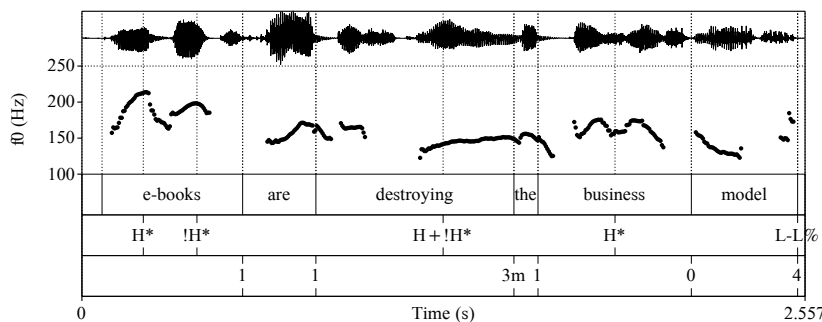
C.2. The Distribution of ‘Nuclear Stress’

- ◆ LSOR anaphors “avoid” nuclear stress where other constituents would “attract” it

(54) Q: What happened at work today?

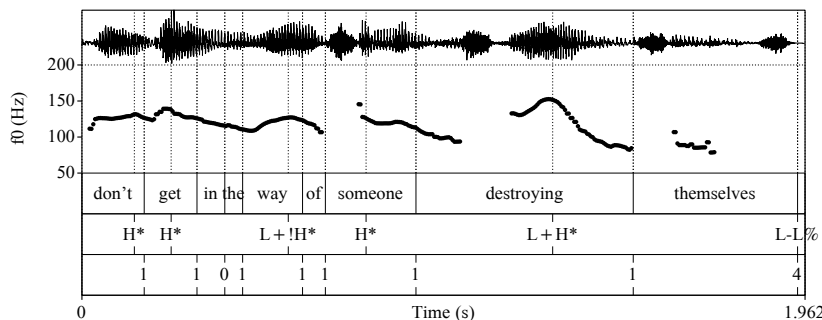
- #A: Mark told Maxine about himself.
- A: Mark told Maxine about himself.
- A: Mark told Maxine about a discovery.
- #A: Mark told Maxine about a discovery.

(55) “To begin, here is the conventional wisdom about publishing: E-books are destroying the [business model].”
(*All Things Considered*, 2012/12/27)



(56) “The oldest rule in politics is: don’t get in the way of someone destroying themselves.”

(*All Things Considered*, 2011/11/14)



- ◆ Constraints on LSOR syntax also govern where you get weak anaphoric pronouns

- ▶ Non-LSOR anaphors behave like other constituents

(57) Q: What did the colonials do to the existing peoples?

- A: They turned them against their brothers.
- A: They turned them against themselves.

- ◆ This follows if:

- ▶ Nuclear stress is assigned based on depth of embedding (cf. Cinque 1993)
- ▶ LSOR anaphors move to VoiceP

- ◆ More details: Ahn 2015a,b