

Breaking ‘*Ourselves*’ Down: The Morphosyntax of English Reflexive Anaphors*

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1 Introduction

- ♦ A view of English reflexive anaphors as a static paradigm:

(1)		SG	PL
	1	myself	ourselves
	2	yourself	yourselves
	3.M	himself	themselves
	3.F	herself	
	3.INANIM	itself	
	3.GENERIC	oneself	

- ▶ Arguments in favor of the widely-held view that reflexive anaphors are simply a fixed (listed) set of functional expressions:

❶ Morphological idiosyncracies (ACC vs. GEN pronoun)

- ◊ (Perhaps because they are idiomatic / morphosyntactically atomic?)

❷ Shared restricted distribution

- ◊ (Perhaps because of a lexically-specified [+reflexive] feature?)

❸ φ -features determined by syntactic antecedent of binding

- ◊ (Perhaps because binding is driven by syntactic AGREE?)

- ▶ Under this view, reflexive anaphors are the spell-out of a unified bundle of features

- e.g., *ourselves* \leftrightarrow [1,PL,Refl] (e.g., Kratzer 2009)

- ♦ Some crucial observations that undermine this ‘paradigmatic’ view

- ▶ Reflexive anaphors can be productively modified, breaking apart the pronoun and *self*

(2) I over-exerted my ambitious self.

- ▶ When modified, the case of the 3rd person pronoun productively alternates

(3) He over-exerted ✓his/*him ambitious self.

- ▶ Reflexive anaphors do not always φ -match their local binder

(4) I wouldn’t over-exert ✓myself/✓yourself, if I were you.

⇒ *Today we’ll investigate data like that in (2)-(4) to motivate a new analysis of English reflexive anaphors*

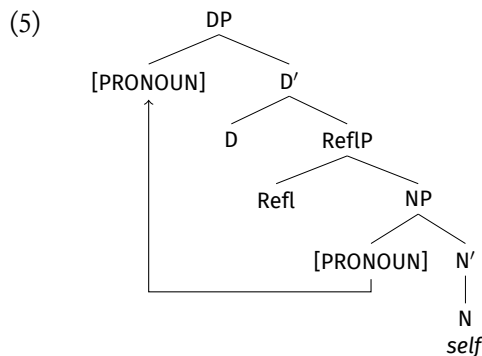
*Portions of this work have been presented at NELS 48, NELS 49, UCLA Syntax-Semantics Seminar, and the Ana-Log Workshop at Harvard. We’d like to thank the audiences at these venues, as well as Jonathan Bobaljik, Yining Nie, Dominique Sportiche, and Tim Stowell for discussions of this work, and Kaeli Ward for the original observation of the ACC/GEN case alternation in (3).

♦ Our broad conclusions:

- ❶ Reflexive anaphors are **syntactically complex derived objects**, whose surface morphological form is productively determined
- ❷ Instead of a lexically specified [+reflexive] feature, a **nominal-internal Refl⁰** in the syntax is responsible for reflexive anaphors' distribution (and form)
- ❸ English reflexives **need not φ -match** the antecedent of binding (in specific circumstances)

♦ Our proposal:

- ▶ English reflexive anaphors are defined by a common structure:

Key aspects of the analysis:

- ♦ A nominal's status as a reflexive anaphor depends on a Refl⁰, in the nominal middlefield
- ♦ The pronoun is an inalienable possessor, with its own case/ φ -features
- ♦ Refl⁰ conditions allomorphy of the pronoun and allomorphy of the head noun

♦ Roadmap

- ▶ §2: Preliminary observations on the decomposability of English reflexive anaphors
- ▶ §3-4: Building up our proposal for the structure of English reflexive anaphors
- ▶ §5: Implications and applications of this proposal
- ▶ §6: φ -feature mismatches in certain reflexive contexts

2 Reflexive Anaphors Are *Not* Simplex

- ♦ Before diving in, let's establish that English reflexive anaphors are morphologically and syntactically complex, involving a DP layer on top of the nominal *self*

2.1 'Self' without a Pronoun

- ♦ In certain contexts, reflexive interpretations remain in the absence of a pronoun
 - ▶ In English 'incorporation', only the N can surface adjacent to its host

- (6)
- a. Some students are completely **self**-reliant.
 - b. Some babies are good at **self**-soothing.

- ▶ In headlines, elements from the D-layer often disappear, leaving only the N and modifiers

- (7) ...Bill O'Reilly embarrasses **self**, colleagues, country... (http://wapo.st/1TYFgoH)

♦ The pronoun is in a D-like relation with the N *self* in reflexives

- ▶ Similar conclusions in Postal 1966: "*self* must be taken to be a noun stem as we see clearly in such phrases as *the expression of self in our society, selfish, selfless* [...] Notice also the *self/selfe* plural alternation"
 - Postal takes the pronouns in reflexives to be "genitive type definite articles" (pg. 182)

2.2 ‘Self’ Severed from its Pronoun

- ◆ Modifiers (in the right contexts) can productively appear between the pronoun and *self*, while maintaining a reflexive interpretation
 - (8) a. I know you’re a high-energy person, but please try to contain **your excitable self**.
 - b. We would never perjure **our honest selves**.
 - c. As usual, my 4 year old son wasn’t behaving **his wild self**.
 - d. They really outdid **their overachieving selves**.
 - ▶ (nb. These are all ‘Obligatorily Reflexive Object’ predicates from Levin 1993:§8.2)
 - ▶ Assuming that adjectives appear between D and N in nominal structure, this is again evidence that *self* is an N while the pronoun is in the D region

3 Internal Structure of English Reflexive Anaphors

- ◆ In this and the following sections, we will investigate what we will call the CASE PUZZLE and the MODIFIER PUZZLE to give us a window into the **internal structure** of English reflexive anaphors:
 - ▶ Pronouns as possessors
 - ▶ A reflexivizing morpheme (that is **not** √SELF)

3.1 Pronominal Form in Reflexives: The CASE PUZZLE

3.1.1 Observations and Hypotheses

⇒ **Observation:** English reflexive anaphors are not morphologically uniform w.r.t. pronominal case—The pronominal component is GEN in non-3rd person, ACC in 3rd person.

- (9) a. 1st/2nd person: myself, ourselves, yourself, yourselves (= GEN + self/selves)
 - b. 3rd person: himself, herself, itself, oneself, themselves¹ (= ACC + self/selves)
- ◆ **The CASE PUZZLE:** Why is the pronominal component of English reflexive anaphors sometimes GEN and sometimes ACC?
 - ▶ Three logically-possible explanations of the ACC/GEN alternation:
 - **Hypothesis A:** The pronoun inside a reflexive is underlyingly GEN, but appears exceptionally as ACC in 3rd person reflexives.
 - ◇ These pronouns look like possessors; cf. the crosslinguistically common possessor+body-part reflexives (cf. Schladt 2000, Kiparsky 2008).
 - ◇ Possessors in English generally have GEN case.
 - **Hypothesis B:** The pronoun inside a reflexive is underlyingly ACC, but appears exceptionally as GEN in non-3rd person reflexives.
 - ◇ The case alternation is triggered in the more marked environment (non-3rd person).
 - ◇ The pronoun was ACC/DAT at the inception of pronoun+*self* reflexives (Keenan 2002).
 - **Hypothesis C:** Reflexives are simplex/idiomatic; the pronouns don’t meaningfully have case.
 - ◇ Reflexives comprise a small set of closed-class forms.
 - ◇ Suggested in passing by e.g. Safir 2004:§6.2.3; Rooryck and Vanden Wyngaerd 2011:§2.5.1

¹We tentatively include *herself* and *itself* with the other 3rd persons; we leave them out of the case illustrations going forward.

- ♦ BUT, consider reflexive anaphors that contain a modifier:

- (10) a. 1st/2nd person: GEN (no change)
 (i) myself → my own/damn self
 (ii) ourselves → our own/damn selves
 (iii) yourself → your own/damn self
 (iv) yourselves → your own/damn selves
 b. 3rd person: GEN (*ACC)
 (i) himself → his own/damn self (*him own/damn self)
 (ii) themselves → their own/damn selves (*them own/damn selves)

⇒ **Observation:** With (certain) modifiers, the pronominal component is GEN in all persons.

- Eliminating hypotheses:

- **Hypothesis B** (ACC underlying, GEN exceptional)

◊ No longer viable, because it is clear that the exceptional case form is ACC.

- **Hypothesis C** (reflexives are simplex/idiomatic)

◊ No longer viable, even under a phonological-infixation analysis of *damn*, because the 3rd person pronouns surface with a different case than in the unmodified reflexive form

◊ This accords with our findings from Section 2.2

- Still in the running:

- **Hypothesis A** (GEN underlying, ACC exceptional; *henceforth* “GEN→ACC”)

3.1.2 Beyond Simple Accounts for Case Alternations

- ♦ Could it just be that there is an **adjacency requirement** between the exceptional ACC pronoun and *self*, along the lines of (11)?

- (11) GEN → ACC / ___*self* (Undergone by 3rd person pronouns)

- **No**; consider that nominals headed by *self* (henceforth “self-phrases”) may have GEN 3rd person pronouns adjacent to √SELF, when they are non-reflexive:

- (12) a. After spending two years in meditation, {✓his/*him} self was fully realized.
 b. After spending two years in meditation, {✓their/*them} selves were fully realized.

⇒ **Observation:** Simple adjacency with *self* does not guarantee ACC.

- ♦ But isn't there a reflexive √SELF₁ and a separate non-reflexive √SELF₂?² In other words, could we simply reformulate (11) as (13)?

- (13) GEN → ACC / ___*self*_{REFL} (Undergone by 3rd person pronouns)

- **This is highly suspicious**, for several reasons

- In English, all usages of *self* have the non-productive plural form *selves*
 ◊ /selvz/ always (/selfs/ is bad in any context)
 ◊ Suggesting a single √SELF undergoing the same allomorphy

²One might think that prosody shows there are indeed two different √SELF morphemes: one that bears phrasal stress (and is non-reflexive), and one that does not bear phrasal stress (and is reflexive). In fact, the facts are more complex than this characterization; moreover, which √SELF morphemes bear stress is not a lexical issue, but a syntactic one (cf. Ahn 2015a).

- The crosslinguistic ubiquity of body-part (and other inalienably possessed) nouns in reflexives
 - ◊ Positing multiple- $\sqrt{\text{SELF}}$ s would predict that —across languages— there are always two homophonous body-part roots (e.g., reflexive $\sqrt{\text{HEAD}}$ and non-reflexive $\sqrt{\text{HEAD}}$)
- (For independent arguments for one $\sqrt{\text{SELF}}$ in the lexicon, see Patel-Grosz 2013)

⇒ **Hypothesis:** There is only one $\sqrt{\text{SELF}}$ morpheme, which doesn’t entail reflexivity

- ♦ Note that even if we admitted a special reflexive $\sqrt{\text{SELF}}$, the following data shows even this is not enough to predict ACC vs. GEN:

- (14) a. Batman { $\sqrt{\text{his}}/\sqrt{\text{him}}$ } fucking self couldn’t catch the Riddler.
 b. Batman and Robin { $\sqrt{\text{their}}/\sqrt{\text{them}}$ } fucking selves couldn’t catch the Riddler.

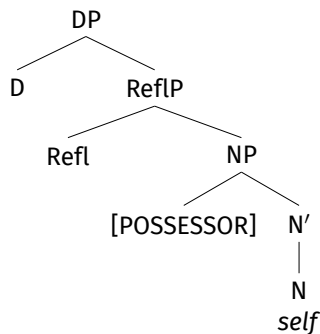
- ▶ Both GEN and ACC are possible with this type of modifier (We return to why in §3.2)

⇒ **Observation:** Simple non-adjacency with *self* does not guarantee GEN.

3.1.3 Basic Analysis of the CASE PUZZLE

- ♦ **Core idea:** The exceptional ACC form of third person pronouns is triggered by whatever it is that makes a self-phrase reflexive.
- ♦ Whether a self-phrase is reflexive is not determined $\sqrt{\text{SELF}}$ (cf. (12)), but rather by $\text{Refl}(\text{P})$

- (15) Refl as a functional head in the middlefield of the nominal³



- ▶ (The intuition that there are two *self* words is still essentially right under this analysis – one occurring with this Refl^0 , and one not)
- ▶ **Support for representing Refl in the syntax:**
 - Refl^0 must be represented at LF, since it affects interpretation.
 - ◊ In reflexive contexts, $\sqrt{\text{SELF}}$ (like $\sqrt{\text{HEAD}}$ or $\sqrt{\text{BONE}}$ in other languages) lacks a reified substantive reading (cf. Safir 1996)
 - ◊ The lack of contribution to the meaning can be modeled as a case of ‘camouflage’ (cf. $\sqrt{\text{ASS}}$ in AAE; Collins et al. 2008)
 - ◊ The absence of a substantive reading of $\sqrt{\text{SELF}}$ is controlled by the presence/absence of the Refl^0 and principles of ‘local allosemy’ (cf. Marantz 2013)
 - Refl^0 must be represented at MS/PF, since it affects surface form
 - ◊ Refl^0 is the trigger for allomorphy of third person pronouns (exceptional ACC)
 - ◊ The exceptional ACC form of third person pronouns in reflexives is conditioned by **locality between the possessor and Refl^0** before exponents are chosen, (16)

³The possessor pronoun is in Spec,NP in this tree, which we take to be the position for inalienable possessors. We come back to this in section 4.2.

(16) GEN→ACC (to be revised)

Third person pronouns in English self-phrases (underlyingly GEN) surface as ACC when they are local to Refl⁰ before pronominal exponents are chosen

◇ Note, importantly, that GEN→ACC does not impact whether a phrase can be reflexive

⇒ Conclusions thus far:

- ▶ The distribution of a reflexive anaphor as such is controlled by Refl(P) in the nominal syntax
- ▶ The pronoun internal to reflexive anaphors is an inalienable possessor
- ▶ Refl(P) is read by LF as a reflexive anaphor, triggers allomorphy of √SELF, and conditions allomorphy of the pronominal possessor
- ▶ i.e. “himself” is not the atomic exponent for a lexically-specified [+reflexive] pronoun

3.2 Adjectives and Reflexive Distribution: The MODIFIER PUZZLE

- ◆ **Observation:** Some self-phrases distribute as reflexive anaphors, repeated below from (8), while others (just like simple pronouns) do not, (17)⁴

- (8)'
- a. I know you're a high-energy person, but please try to contain **your excitable self**.
 - b. We would never perjure **our honest selves**.
 - c. As usual, my 4 year old son wasn't behaving **his wild self**.
 - d. They really outdid **their overachieving selves**.

- (17)
- a. ?*I know you've had a lot of coffee, but please try to contain **your caffeinated self**.
 - b. ?*If we testify after drinking, we might perjure **our drunk selves**.
 - c. ?*After a sleepless night, my 4 year old son wasn't behaving **his tired self**.
 - d. ?*They really outdid **their excited selves**.

- (18) **The MODIFIER PUZZLE: Which sorts of modified self-phrases can be reflexive?**

3.2.1 Sharpening the Puzzle

- ◆ What ways do we have of telling whether self-phrases that contain a modifier are reflexive or not?

- ▶ Three diagnostics for (non-)reflexivity (no modifiers)

- **Diagnostic 1:** Object of an inherent reflexive verb (Levin 1993) → *Only a reflexive allowed*

- (19)
- a. He perjured {✓himself/*yourself/*him/*his daughter/*you}.
 - b. I sunned {✓myself/*himself/*me/*my daughter/*him}.
 - c. They behaved {✓themselves/*ourselves/*them/*their friends/*us}.

- **Diagnostic 2:** Emphatic reflexive position → *Only a reflexive allowed*

- (20)
- a. We assembled the IKEA table {✓ourselves/*themselves/*us/*our friends/*him}.
 - b. She {✓herself/*himself/*her/*her daughter/*you} solved a Millennium Problem.

- ◇ *n.b.* Emphatic reflexives are not exempt anaphors or logophors: they require a (syntactically local) antecedent, and they do not alternate with non-anaphoric pronouns (Ahn 2010).⁵

⁴Patel-Grosz 2013 also has data showing modified reflexives not conforming to Principle A, leading to the conclusion that modified self-phrases don't behave as reflexives. However, she does not discuss data like (8), which show that they sometimes can.

⁵More deeply: there are two types of emphatic reflexives. The “without help” emphatic reflexive requires an Agent (and not, e.g., Causer) antecedent; the “contrasting with related entities” emphatic reflexive requires an antecedent that is of semantic type $\langle e \rangle$. These requirements are distinct from the properties that define logophoricity.

■ **Diagnostic 3:** Matrix subject position → *Only a non-reflexive allowed*

- (21) a. {✓I/*myself} devoured an entire apple pie.
b. {✓He/*himself} arrived late.

► Applying these diagnostics reveals that some modified self-phrases can be reflexives, while others cannot.

◆ **Four types of modifiers and how they fare:**⁶

A. Expressives (e.g., expletives conveying not-at-issue content)

- (22) a. He perjured his damn/goddamn/fucking self. (✓inherent refl)
b. She her damn/goddamn/fucking self said she wasn’t punk. (✓emphatic refl)
c. Even after years of meditation, his damn/goddamn/fucking self was as elusive as ever. (✓matrix sbj)

⇒ **Observation:** Expressives are allowed in reflexive and non-reflexive self-phrases.

B. Intensifier “Own”

- (23) a. Don’t worry about the other children, just behave your own self. (✓inherent refl)
b. No one else would do it, so she her own self led the demonstration. (✓emphatic refl)
c. While others at the retreat were discovering their selves, his own self remained elusive. (✓matrix sbj)

⇒ **Observation:** “Own” is allowed in reflexive and non-reflexive self-phrases.

C. I(individual)-level adjectives

- (24) a. The children behaved their sweet/easygoing selves all evening. (✓inherent refl)
b. She her brilliant/hardworking self solved a Millennium Problem. (✓emphatic refl)
c. His lazy/directionally-challenged self arrived late to the meeting. (✓matrix sbj)

⇒ **Observation:** I-level modifiers are allowed in reflexive and non-reflexive self-phrases.

D. S(tage)-level adjectives

- (25) a. *The children behaved their young/well-rested selves all evening. (*inherent refl)
b. *She her caffeinated/temporarily-motivated self solved a Millennium Problem. (*emphatic refl)
c. His sleepy/overworked self arrived late to the meeting. (✓matrix sbj)

⇒ **Observation:** S-level modifiers are allowed only in self-phrases that are not reflexive.

☞ **Taking stock: S-level modifiers are more restricted** – only they cannot appear in reflexive self-phrases⁷

⁶Notably we only consider pre-nominal modifiers; as far as we have seen, there are no post-nominal modifiers that occur in self-phrases. This matter seems important, and may be indicating something about the types of movements that are (im)possible inside of reflexive self-phrases.

⁷We are not making claims about particular lexical items; most adjectives can be used either as S-level or I-level, at the very least through coercion. Instead, we are making claims that it is how the adjective is used in the particular context that determines whether it allows a reflexive interpretation.

3.2.2 Modifier Heights

- ◆ To understand this puzzle more fully, let's look what some existing conclusions about the positions of adnominal modifiers

- ▶ Expressives have been argued to merge high in nominal structure, outside D (Potts 2007)
 - e.g., Icelandic expressives show morphosyntactic evidence of being outside of the XP headed by the definite article

(26) 'the blessed ring' [Pfaff 2015, p.80]

- a. hringur -inn blessað.i
ring -DEF blessed.WEAK
"the ring blessed by a priest or by god (for instance a wedding ring)"
- b. blessað.ur hringur -inn
blessed.STRONG ring -DEF
'the damn ring! (I can't get it off my finger)'

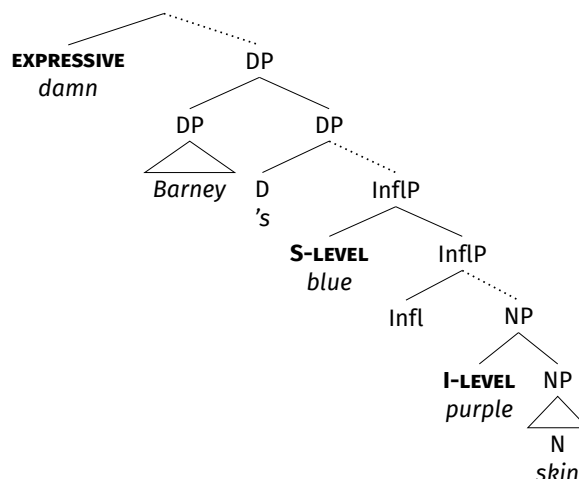
- ▶ I- vs. S-level modifiers occur in different positions (Larson 1998, Larson and Takahashi 2007, *i.a.*):

(27) "Barney, the dinosaur that has purple skin who is currently covered in blue paint..."

- a. Barney the blue purple dinosaur
- b. *Barney the purple blue dinosaur

- S-level modifiers depend on an event variable and temporal anchoring (Balusu 2016), so we take them to be in a projection in the middlefield of DP one might call "InflP"
- I-level modifiers are merged closer to N/NP, and are temporally independent
- ▶ (The syntax of *own* is a tricky case—we put it aside for now, but will return to it in section 5.1)
- ▶ Putting together these relative heights, we get the structure in (28)⁸

(28) *Barney's damn blue purple skin*

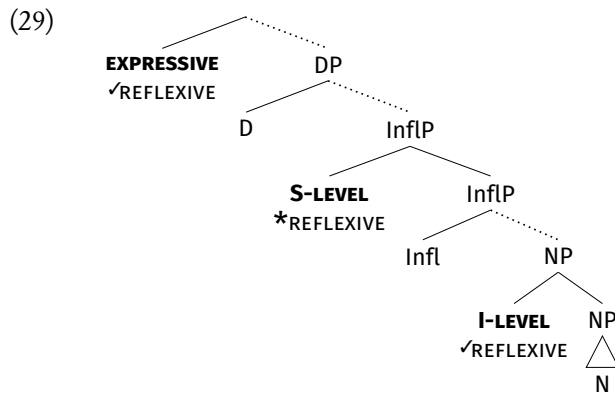


- Despite (the non-infix) *damn* merging so high, it is **always linearized between** the possessor and the S-level modifier (when they are both present)
- We will model this as some kind of lowering/reordering (Potts 2007) that takes place when syntactic labels are still accessible

⁸Nothing hinges on these precise syntactic positions for modifiers; only relative height w.r.t. functional heads matters.

3.2.3 The Fully Specified MODIFIER PUZZLE

- ◆ Let’s annotate the modifiers in (28) with their compatibility with reflexivity
 - ▶ (✓REFLEXIVE = allows a reflexive interpretation; *REFLEXIVE = disallows a reflexive interpretation)



- ▶ Q: Why is it the highest type (expressives) and the lowest type (individual-level) that permit a self-phrase to be reflexive, while structurally intermediate (stage-level) modifiers do not?

3.2.4 Basic Analysis of the MODIFIER PUZZLE

- ◆ **Core idea:** Individual-level modifiers and expressives are syntactically compatible with Refl(P), whereas stage-level modifiers are not
 - ▶ Stage-level modifiers and Refl both occupy the nominal middlefield
 - ▶ Refl and stage-level modifiers essentially compete for this middlefield position—one precludes the other, and so they never co-occur
 - If a stage-level adjective appears, Refl(P) must not, and so the self-phrase can’t be reflexive
 - The √SELF morpheme (modified by a stage-level adjective) can be interpreted as substantive, since Refl is not there to trigger alloosemy
 - ▶ Individual-level modifiers and expressives are *too far* from Refl to interact with it or block it

3.3 Interim conclusions

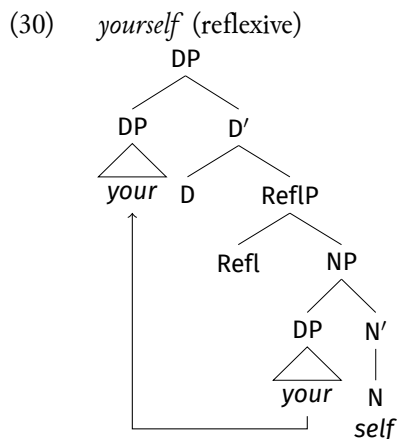
- ◆ In this section, we have presented data involving case and reflexivity alternations which we take to motivate the following core components of our analysis:
 - ▶ Self-phrases, reflexive or not, contain the same √SELF morpheme
 - ▶ Reflexive self-phrases contain a Refl(P) in the nominal middlefield, between D and N
 - ▶ Refl conditions...
 - Allomorphy of the possessor pronoun (GEN→ACC)
 - Alloosemy of the root √SELF (lacks a reified substantive reading)
 - ▶ Stage-level modifiers and Refl, both in the nominal middlefield, are (somehow) incompatible with each other

4 Detailed Solution

- ◆ In this section, we provide a detailed execution of the basic analysis motivated in §3
 - ▶ We will pick up right where we left off with adjectives (the MODIFIER PUZZLE)
 - ▶ We will then come back to the CASE PUZZLE

4.1 The Structure of Reflexive Anaphors

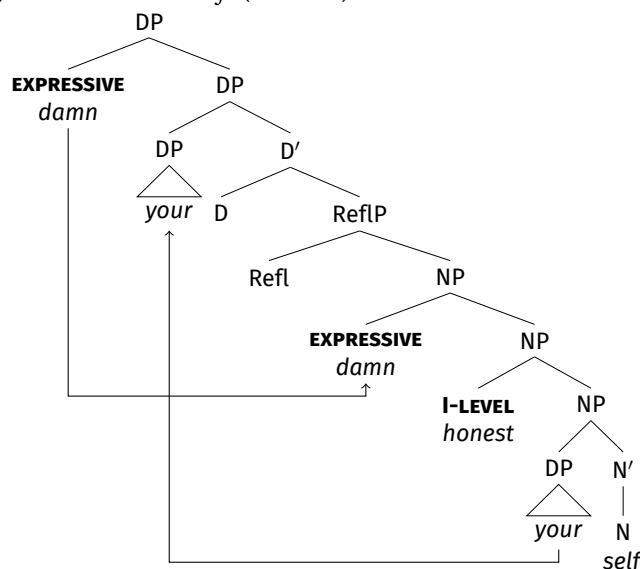
- ◆ Following our discussion in §3.1, a reflexive self-phrase like *yourself* contains:
 - ▶ (i) a Refl^0 , (ii) an inalienable possessor pronoun, which raises to Spec,DP, (iii) a $\sqrt{\text{SELF}}$



- ◆ As we have already discussed, a reflexive self-phrase can contain much more than this:
 - ▶ expressive modifiers (e.g., *damn*), an intensifier *own* (see §5.1), and I-level modifiers (e.g., *honest*)

(31) Unless you want to get locked up, you need to learn to perjure your damn honest self!

(32) *your damn honest self* (reflexive)



- Expressives compose with the whole DP (Pfaff 2015), and so must ultimately lower to derive the surface word order (Potts 2007).⁹

- ▶ Reminder: It can't be that a reflexive self-phrase must be small / simplex.

⁹See Appendix C for more discussion of this timing.

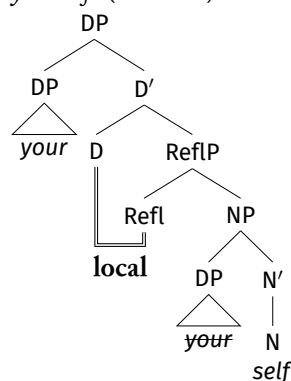
- ◆ **The MODIFIER PUZZLE:** What about S-level modifiers is different, such that they cannot be in a self-phrase that gets a reflexive interpretation (cf. (25))?

- ▶ **Hypothesis:** InflP (host of S-level modifiers) and its intermediate position is the problem.
 - InflP disturbs the relationship(s) necessary for a reflexive interpretation/distribution.
 - $D > \text{Infl} > N$ (cf. (29))
- ▶ **Question:** Why should InflP preclude Refl(P) / disrupt the ability to be a reflexive self-phrase?
- ▶ **Proposal:** We posit that a **local relationship must hold between D and Refl** in reflexive pronouns.
 - Reflexive self-phrases always occur with pre-nominal possessors, implicating that the D^0 that triggers movement of the possessor to Spec,DP is a necessary component of reflexive self-phrases
 - Déchaine and Wiltschko (2017), surveying varieties of reflexives crosslinguistically, conclude that D is crucial for reflexivity in English
 - ◇ (Though we differ from them in having a unique REFL^0 on the nominal spine)
 - We have not identified the nature of this relationship
 - ◇ (Selection? Feature checking? Percolation?)

◆ **Illustrations:**

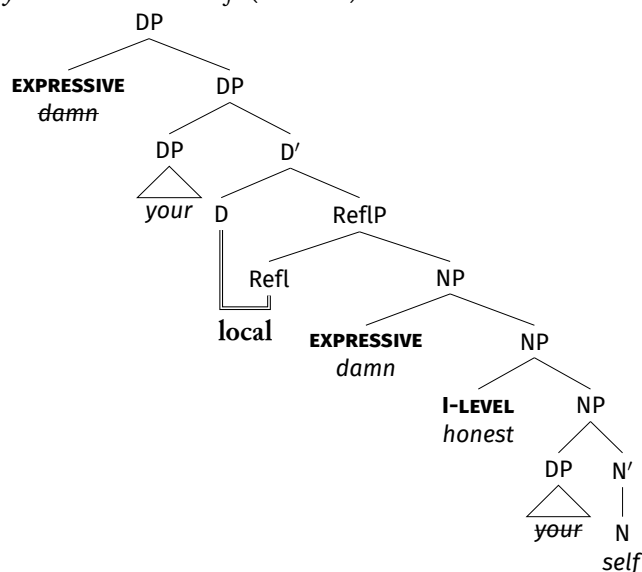
- ▶ Our proposed D-Refl locality requirement is trivially satisfied in self-phrases without modifiers:

(30') *yourself* (reflexive)



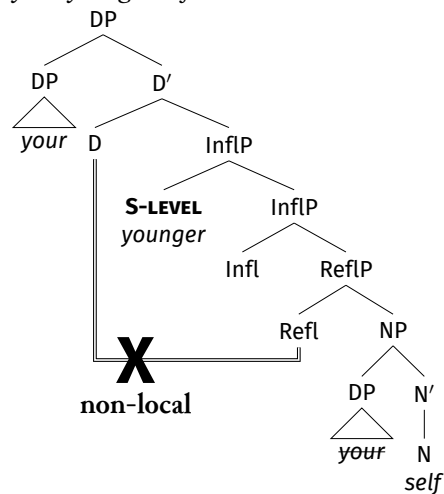
- ▶ This locality requirement is also satisfied in self-phrases with I-level and expressive modifiers, which occur below REFL or above D:

(32') *your damn honest self* (reflexive)

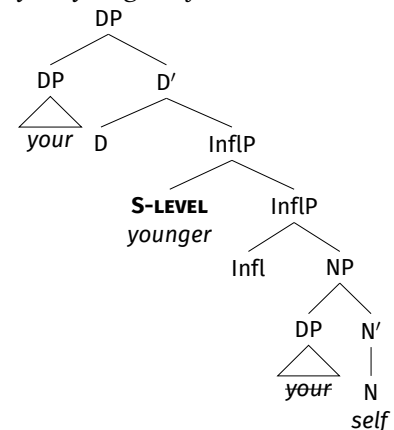


- S-level modifiers require (occur in) a projection below D in the nominal middlefield, InflP, disrupting D-Refl locality:

(33) **your younger self* (reflexive)



(34) ✓*your younger self* (non-reflexive)



- Modifiers that require an XP between ReflP and DP block a reflexive interpretation.
 - ◇ This is **highly reminiscent of NegP** blocking the T-V relationship for English main verbs.
 - ▷ (a middlefield functional head blocks the relationship between something in the subject-region of the clause with something in the predicate-region of the clause¹⁰)
- Modifiers that occur outside of this middlefield do not block a reflexive interpretation.
 - ◇ I-level modifiers are too low to interfere in this locality relation.
 - ◇ Expressive modifiers are too high to interfere in this locality relation.
- ◆ To reiterate, our formal analysis of the incompatibility of InflP and ReflP is as below
 - **Core idea:** Refl must be licensed under a local relationship with D
 - **The crucial piece:** An S-level adjective requires InflP, which somehow blocks ReflP (precluding reflexivity)
 - (For some specific hypotheses implementing this analysis, see Appendix D)
- ◆ NOTE: a self-phrase's reflexivity is **not** the property of any individual head alone (e.g., D, Refl, or √SELF)
 - If it were, it is not clear how only InflP (only S-level modifiers) would block reflexivity

SUMMARIZING THE MODIFIER PUZZLE

- ◆ **Reflexive interpretation/distribution arises from ReflP in nominal structure**
 - Reflexive interpretation/distribution requires locality between Refl & D
- ◆ **Self-phrases with an S-level modifier obligatorily lack Refl**
 - The host of S-level modifiers, InflP, would block D-Refl locality

¹⁰And when the modifier is missing (a stage-level adjective or Negation), there is no intervention (perhaps because the InflP/NegP is simply absent from the derivation). *However*, the similarities break down in that there is alternative structure for when Neg blocks the T-V relationship: *do*-support. No such operation appears to be available for reflexive expressions.

4.2 Returning to the CASE PUZZLE

◆ Some assumptions

- ▶ The framework of Distributed Morphology (Halle and Marantz 1993, 1994)
 - The syntax operates over abstract morphemes.
 - The output of syntax feeds...
 - ◊ Logical Form (LF), and
 - ◊ Morphological Structure (MS) / Phonological Form (PF)
 - Only features that feed both LF and MS/PF originate in the syntax
- ▶ There is only one $\sqrt{\text{SELF}}$, and it is inalienably possessed
 - It is behaving as a “body-part” noun
 - Inalienable possessors merge lower than other possessors, e.g., in the specifier of NP (Español-Echevarria 1997, Alexiadou 2003, *i.a.*).

◆ Establishing the rule

- ▶ **Locality between the pronoun and the Refl head is what matters**

(35) **GEN→ACC Rule (revised, cf. (16))**

GEN→ACC / Refl [[CASE: __, π :3]

= “A GEN case feature changes to ACC when a third person pronoun is syntactically local to Refl.”¹¹

- (We will provide evidence for this locality, based on what disturbs it)
- To be clear: This rule must apply before Vocabulary Insertion.
 - ◊ Vocabulary Insertion (the pairing of phonological forms with the output of the derivation up until that point) is sensitive to formal feature specification.
 - ◊ The GEN→ACC rule alters this feature specification, thereby affecting the choice of Vocabulary Item (phonological form).

- ◆ “GEN → ACC” in rule (35) stands in for a number of analytical possibilities, e.g.:
 - ▶ An impoverishment rule
 - E.g., taking accusative pronouns in English to spell out both abstract ACC case and default (lack of) case (Schütze 2001), GEN → ACC is GEN deletion.
 - ▶ A feature-changing rule
 - E.g., adopting a featural analysis of case (like Calabrese 2008), GEN → ACC is a feature-changing operation.
 - ▶ A retreat to a less-marked case
 - E.g., assuming a case hierarchy like that of Blake (1994), GEN → ACC is simply taking one step down on the markedness hierarchy.

- ◆ The rule in (35) predicts that there are essentially **two reasons a 3rd person possessor will be realized as GEN** (rather than undergoing the change in the rule and becoming ACC):

❶ Something intervenes between the possessor (in its base position) and Refl⁰

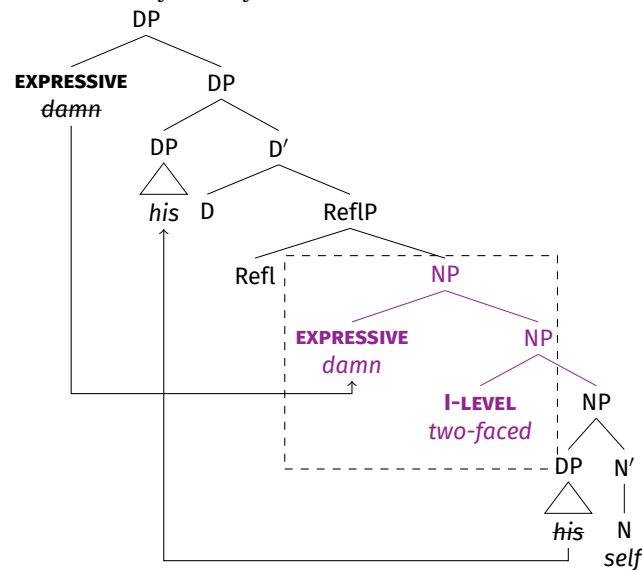
- Some examples in (36), from Twitter:

- (36) a. Next time, he’ll behave **his two-faced self**. ([🐦/itsSinmi_/status/591421294673006595](https://twitter.com/itsSinmi_/status/591421294673006595))
 b. He really better behave **his damn self**... ([🐦/the1kimjintae/status/653690311936356352](https://twitter.com/the1kimjintae/status/653690311936356352))

¹¹There may be some sort of local dislocation (Embick 2010) bringing together Refl and the possessor (which we assume is a simple head, D) before the rule applies. Nothing in our account hinges on this.

- The examples in (36) employ the modifiers in the box below:

(37) *his damn two-faced self* (reflexive)



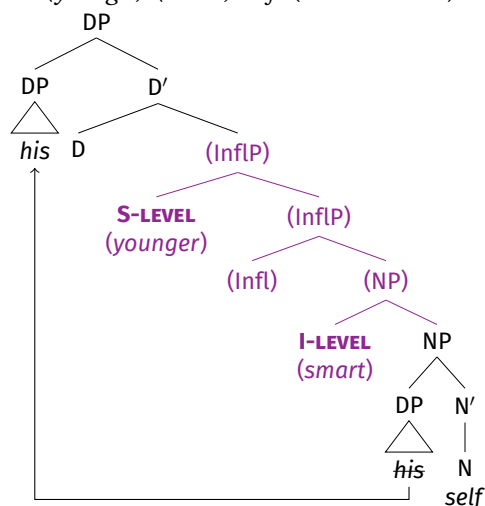
- Note: an expressive like *damn* “lowers” into a position where it intervenes between Refl and the possessive pronoun, for the purposes of GEN→ACC.
 - ◇ Non-infix expressives (e.g., *damn* for many AmE speakers) are always pronounced in the position just before the highest adjective
 - ◇ This “lowering” operation is necessary for linear order (cf. Potts 2007)
 - ◇ It must also take place at a point in the derivation where syntactic labels are still accessible, given that it targets a particular syntactic position
 - ◇ Given that it can bleed the application of the rule, it must precede GEN→ACC as well.
 - ◇ This puts the “lowering”/movement operation(s) in the syntax (see Appendix C on timing)

② The expression is not a reflexive one, i.e., when there is no Refl:

- Again, examples from Twitter (38), and the syntax that goes with it in (39):

- (38) a. I know you’re supposed to tell people to be themselves but sometimes **their selves** are garbage so what then (🐦/lauravslife/status/906852595414786048)
 b. I wanna know what **his younger self** was like (🐦/annakartikeya/status/721868631248891904)

(39) *his (younger) (smart) self* (non-reflexive)



♦ In contrast, GEN→ACC does apply if...

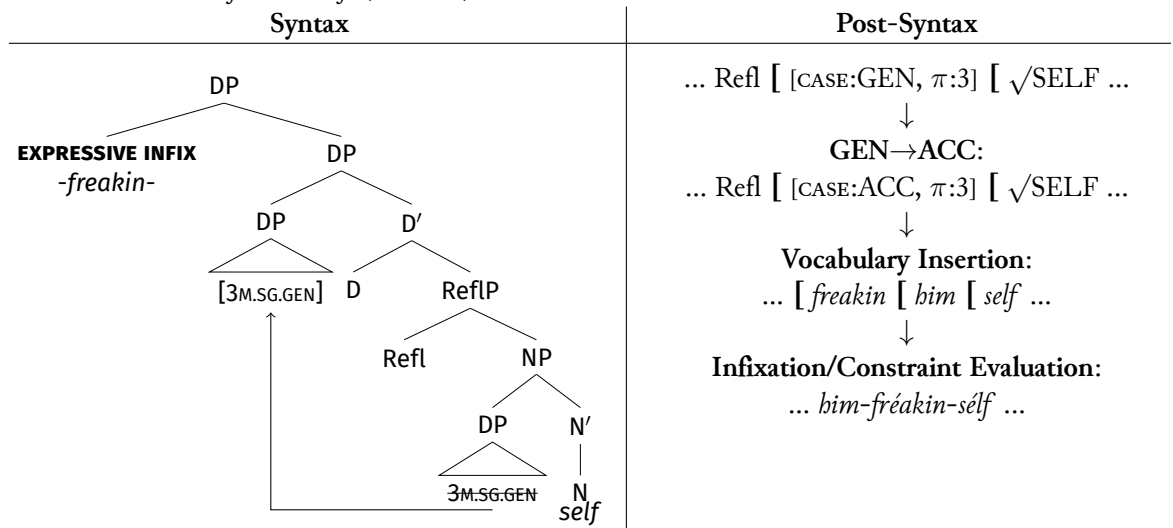
- a) Refl is in the derivation, and there are no modifiers, as in (40)...
- b) ...or Refl is in the derivation, and the only modifiers present are infixed, as in (41).

- (40) a. Anthony behaved himself.
b. Anthony and Rebecca built the IKEA furniture themselves.
- (41) a. it’s not a bloody selfie coz he didn’t take it **him-bloody-self** (🐦/joe_1183/status/716011036969721856)
b. remember you’re stronger than god **him fuckin self** (🐦/casey_shrout/status/910674199722840065)
c. @ScottCawthorn_ everyone knows u are fake because **SCOTT HIM FREAKIN SELF**
SAID HE HAS NO TWITTER (🐦/therealone515/status/550188426688217088)

- For cases like (41), a phonological-infixation route (so-called “expletive infixation”) is available for expressives like *freakin/bloody*

♦ Let’s look closely at the derivation:

- (42) Derivation for *him-freakin-self* (reflexive)



► In the syntax...¹²

- The expressive infix is merged above D, and does not vacate its syntactic position (does not lower in the syntax)

► In the post-syntax...

- GEN→ACC applies, before Vocabulary Insertion¹³ (the morphological rule feeds VI)

$$(35) \quad \text{GEN} \rightarrow \text{ACC} / \text{Refl} [[\text{CASE:}___, \pi:3]$$

- PF-infixation must apply after Vocabulary Insertion, because infixation depends on lexical stress and other phonological pivots (Yu 2003)¹⁴

$$(43) \quad \text{ALIGN}(\text{R}, -\text{freakin-}, \text{L}, \text{stressed foot}) \quad (\text{cf. Yu 2003})$$

- This has all the hallmarks of PF-reordering: moving of a phonological string, to a position defined by phonological terms (stress, feet, can be described purely linearly, etc.)

¹²The tree in (42) uses some English words in the nodes; but they are not yet inserted; feature bundles and roots occur in these positions instead.

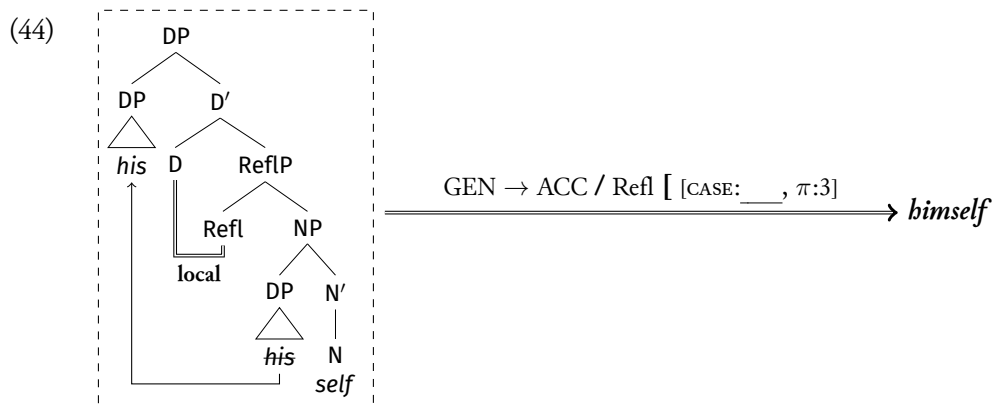
¹³The lower copy is what is local to Refl, which is apparently sufficient for the application of (35); see Appendix C.2.

¹⁴Newell (2017) also notes that expletive infixation takes place very late; the host for the infix can have gone through Spell Out more than once.

- ▶ nb. Two routes for expletives taking their surface position are needed anyways!
 - Expletive infixation can appear inside roots (*abso-freakin'-lutely*)
 - ◊ = phonological infixation
 - Some expletives aren't infixable (**abso-damn-lutely*), yet appear DP-internally (*the damn dog*)
 - ◊ = syntactic lowering

4.3 Summary: The solutions to the CASE PUZZLE and MODIFIER PUZZLE

- ◆ In order to solve both the CASE PUZZLE and MODIFIER PUZZLE, a nuanced view of the nominal syntax for self-phrases is necessary
 - ▶ The **morphological form** of the possessor and the interpretation of the self-phrase as a **reflexive anaphor** require locality between pieces of the structure
 - D-Refl for reflexivity
 - Refl-possessor for GEN→ACC
 - ▶ The syntactic structure we proposed is boxed in (44) below



- ▶ This syntactic structure is then interpreted by MS to yield *himself*, (45), and by the conditions on binding to be a reflexive anaphor, (46).

(45) **Analysis of the CASE PUZZLE (for 3rd person pronouns)**

<i>GEN if there is/are:</i>	<i>Because:</i>
S-level Modifiers	There is no Refl to trigger GEN→ACC
I-level Modifiers	NP adjuncts intervene between possessor & Refl
Lowered Expressives	Expressives lower before GEN→ACC & intervene
<i>ACC if there is/are:</i>	<i>Because:</i>
Refl + No Modifiers	Refl and the possessor are local
Refl + Infixed Expressives	PF infixation applies after the GEN→ACC rule

(46) **Analysis of the MODIFIER PUZZLE**

A self-phrase is treated as a reflexive anaphor if there is locality between D and Refl; this locality is disrupted by Infl (which is required for S-level modifiers).

5 Extending the Analysis

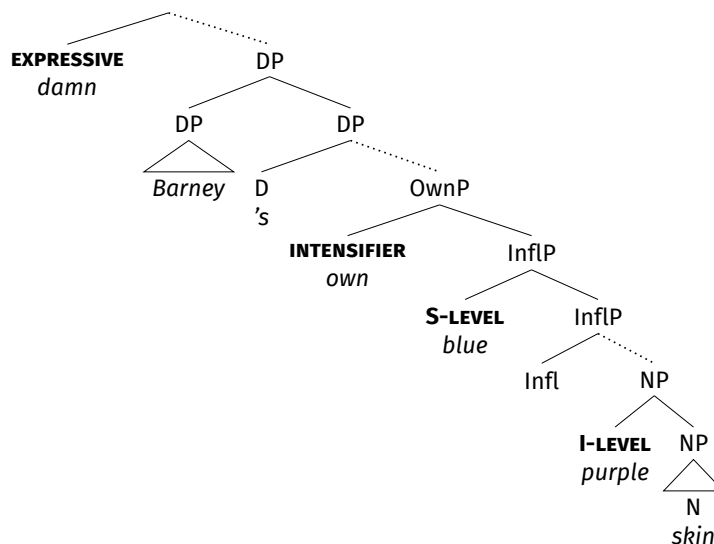
5.1 Intensifier ‘own’

- ◆ Let’s return to *own*
 - ▶ Its syntactic position is underexplored
 - ▶ It has a variety of interesting properties
- ◆ To begin: its linear order
 - ▶ The intensifier *own* occurs outside S-level adjectives (like *earlier*), and inside D⁰:¹⁵

- (47) a. The bully’s own earlier experiences as a victim of bullying...
 b. *The bully’s earlier own experiences as a victim of bullying...

- ◆ Hypothesis: *own* is introduced between the possessor DP and any S-level or I-level modifiers

- (48) *Barney’s own damn blue purple skin*



- ▶ This position seems to fit well with other properties of *own*:
 - It requires a Saxon genitive possessor (and *ownP* and *D* are local)
 - *own* survives NP ellipsis (*‘Stop using my nice pen, get your own nice pen.’*)
 - *own* precedes numerals (*‘My own two best friends betrayed me’*)
- ◆ If *ownP* is below *RefIP*, (49), then this is compatible with what we have said about the case/modifier puzzles

- (49) *your own damn honest self* (reflexive)

[DP your [D [RefIP Refl [OwnP own [NP damn [NP honest [NP self]]]]]]]

- ▶ *own* is between *Refl* and *NP*, blocking GEN→ACC

- (50) You can save no one from **his own self**.

(<https://twitter.com/msekla/status/657856163116007424>)

- ▶ *own* does not intervene between *Refl* and *D*, allowing reflexive distribution

¹⁵ *own* is different from other modifiers: it is always before all other modifiers, it requires a Saxon genitive, and its usage seems to be much more governed by discourse structure (seeming to require contrastive focus). We assume that it occurs in a distinct projection, “*ownP*” for convenience. Note that it is not limited to reflexive contexts, as in (47).

- ◆ But there is a problem: How can ownP be both *above* S-level modifiers, as in (49), (which themselves are above ReflP, §4.1), and *below* Refl, as in (50)?

- ▶ \Rightarrow Ordering paradox

- ◆ Possible solutions

- ▶ ownP is below Refl, and *own* is an adjunct that raises (cf. *propre* in Charnavel 2012)
 - ▶ Perhaps the incompatibility of Refl and S-level modifiers is more general, something to do with adjectives in pronominal-like elements (could be a semantic problem, rather than a syntactic one)
 - Note the similarity with the sorts of modifiers that can appear in epithets:

- (51)
- | | | |
|----|----------------------------|---------------|
| a. | ✓I hate the greedy bastard | (✓I-level) |
| b. | ✓I hate the damn bastard | (✓expressive) |
| c. | *I hate the tired bastard | (*S-level) |

5.2 ReflP in ‘Exempt Anaphors’

- ◆ A reflexive self-phrase can occur even when the clause is not reflexive:

(52) Kenneth₁ said that Liz₂ invited both himself₁ and the boss to dinner.

- ▶ No clausal reflexivity would be posited in cases like (52a) (involving so-called ‘exempt’ anaphors)
 - cf. Labelle 2008, Reuland 2011, Ahn 2015b

- ◆ But notice that the self-phrase does not manifest as *hissself*:

(53) *Kenneth₁ said that Liz₂ invited both hissself₁ and the boss to dinner.

- ▶ The GEN→ACC rule that yields *him* in 3rd person self-phrases relies on a ReflP.
 - ▶ If there were no ReflP inside the self-phrase in exempt anaphors, we would incorrectly predict *hissself* as acceptable – contra (53).

BROAD CONCLUSION

Even ‘exempt anaphor’ expressions contain a ReflP

- ▶ This supports the findings of Charnavel and Sportiche 2016: even exempt anaphors distribute like reflexives

5.3 Crosslinguistic View

- ◆ There is a crosslinguistically common pattern of using inalienably possessed nouns (e.g., body parts) in reflexive-marking expressions

- ▶ **English fits neatly in this typological category**, under our analysis

- Even though the surface forms make it seem as though the pronominal is not a possessor (e.g. *hissself*), our analysis shows that a possessor analysis is both possible and desirable.

- ▶ Ironically our proposed reflexive structure is not a “self-type” reflexive syntax, in the terms of Kiparsky 2008 (cf. older forms of English, Appendix E).

- ◆ This enables us to understand the historical change into our present day paradigm as a natural process

- ▶ Thanks to whatever principles of cognition/UG/language-change makes the possessor+body-part expression a natural expression of a reflexive anaphor

- ◆ König and Siemund (2000) suggest that reflexive pronouns typically historically develop from body-part Ns
- ◆ Schladt (2000) has a fine-grained typology, identifying at least 8 different sources for reflexive markers
 - ▶ (i) body part (e.g., *head, body, bone*), (ii) *person/self*, (iii) *soul/spirit*, (iv) emphatic pronoun, (v) personal pronoun, (vi) locative preposition, (vii) *return*, (viii) *reflection*
 - ▶ The source of the reflexive marker in 120 of 148 (~81.1%) of his surveyed languages is of type (i)–(iii)
 - We take sources (i)–(iii) to be cases of **inalienable possession**
 - *Inalienable possession (and not “body parts”, per se) is relevant: Ewe reflexives use inalienable possessor morphosyntax for reflexive markers, but true literal body-part nouns occur with alienable possessor morphosyntax (Essegbey 1999).*
 - ▶ Clear connection to our structure in (30), where the pronoun is an inalienable possessor that starts in Spec,NP

BROAD CONCLUSION

English self-phrases fit the typological mold of body-part reflexives

- ▶ There is a connection between inalienable possession (e.g., body parts) and reflexivity
- ▶ Perhaps this is because of ReflP’s locality with NP, where inalienable possession is structurally established

- ◆ Open question: Déchaine and Wiltschko posit a slightly different set of possible structures – how can we align their findings and ours?
 - ▶ D&W identify 5 types of reflexives, based on where the Refl is located in the syntactic structure (D^0 , φ^0 , Class^0 , n^0 , N^0)
 - Perhaps our Refl-based structure is in addition to D&W’s typology (i.e., reflexive markers can be D^0 , φ^0 , Class^0 , n^0 , N^0 , or Refl^0)
 - Or perhaps we could identify some of those same 5 types as differing in which head establishes a local relationship with Refl^0

5.4 Variation Across Englishes

- ◆ What kinds of variation might we expect in varieties of English?
- ◆ Looking at two case studies...
 - ▶ Some varieties of English allow “*hisself*”/“*theirselves*”/“*theyselves*” (e.g., AAVE varieties)
 - Putting aside *theyself* for a moment, *hisself*/*theirselves* is exactly what we would predict if the GEN→ACC rule were absent
 - ◇ Underlying GEN case surfaces throughout the paradigm
 - ↳ The GEN→ACC rule is absent (or optional) in these varieties
 - What about *theyself*: is this a NOM pronoun in 3.PL reflexives?
 - ◇ No: /ðej/ is the surface form of possessive pronouns for 3.PL in these varieties (outside of “*self*” contexts)
 - ◇ As with *theirselves*, GEN→ACC simply hasn’t applied, yielding a GEN surface form (apparently homophonous with NOM) in 3.PL
 - ↳ The surface forms of pronominals vary independently of the GEN→ACC rule

- ▶ Other varieties allow /miself/ (e.g., Northern UK varieties):
 - Could this be GEN→ACC in 1.sg?
 - No: These varieties also have /mi/ as the surface form of the 1.sg possessive pronoun
 - /mi/ can be GEN or ACC, so these varieties are just like the case of ambiguity with “herself”
 - ↳ Again, the surface forms of pronominals vary independently of the GEN→ACC rule

BROAD CONCLUSION

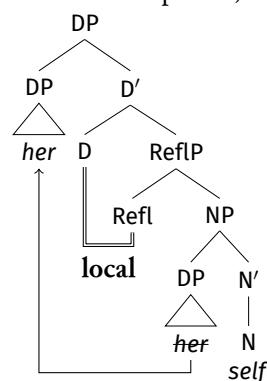
- ♦ Cross-dialectal variation can be easily understood under our analysis
 - ▶ Independent issues in pronominal forms
 - ▶ The applicability of the GEN→ACC rule

- ♦ Open question: is there evidence of varieties that differ in the structures of reflexive self-phrases?
 - ▶ Storoshenko 2013 suggests that “hisself”/“theirselves” reflexives can be ambiguous between DP and φ P reflexives (in D&W’s terms)
 - ↳ Possibility of variation in the precise structures for self-phrases

6 Conclusions about Nominal Structure of English Reflexive Anaphors

- ♦ Reflexives in English must not be listed as static lexical items.
 - ▶ Adnominal modifiers can productively occur inside reflexive self-phrases (syntax)
- ♦ In that vein, fully-formed reflexives (pronoun+*self*) must not be the input to syntax.
 - ▶ ReflP and other syntactic elements (namely, modifiers) condition the surface case of the pronoun (morphology)
 - ▶ This furnishes evidence that morphology (the formation of reflexive anaphors) does not happen before syntax
- ♦ Reflexivity depends on DP-internal structure, and requires local syntactic relationships
 - ▶ Reflexivity is not a property of any one morpheme
 - It emerges from a derivation

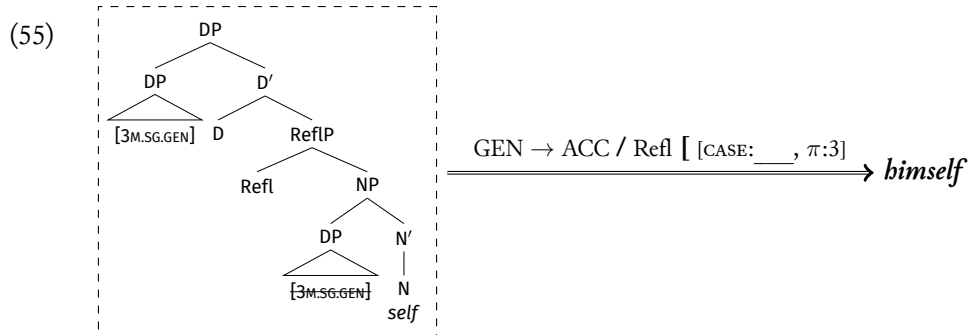
(54) reflexive self-phrase, 3rd person singular feminine



- ▶ Certain adnominal modifiers require structure that would break this locality (S-level modifiers), while others do not

♦ **Morphology is a window into syntax**

- ▶ The empirical fact of the GEN→ACC alternation tells us that there must be some syntactic, highly local relationship between the pronoun and a reflexivizing element.
- ▶ The internal structure of reflexives feeds morphological processes like GEN→ACC



- ▶ ACC forms of the pronoun can thus also be used as a diagnostic of whether a nominal structure contains RefIP (e.g., exempt anaphors, §5.2)

7 φ-Features in Reflexive Self-Phrases

- ♦ In this structure of reflexive self-phrases that we have motivated, there are two nominals (pronominal possessor + √SELF) inside of the anaphor¹⁶
 - ▶ We will use the term ‘reflexive pronoun’ to refer to the pronominal possessor inside of the reflexive self-phrase
- ♦ With two nominals, there are now two loci for φ-features
 - ▶ Question: What determines the φ-features of this reflexive pronoun?
 - ▶ Question: Do the φ-features of the reflexive pronoun match those of the entire reflexive anaphor?
 - We will primarily concern ourselves with the first question

7.1 Reflexive Pronouns and the Antecedent of Binding

- ♦ Consider the generalization in (56)

(56) **Generalization on φ-Matching**

In an English reflexive anaphor, the reflexive pronoun φ-matches the antecedent of binding

- ▶ This is introduced in textbooks and presupposed by researchers across a spectrum of analyses (cf. discussion in Sundaresan 2018)
 - Kratzer (2009), on her derivational analysis of matching φ-features:

“We don’t build [nonagreeing reflexives] to begin with.” (p.196)
 - Hicks (2009), who does not adopt a derivational analysis of matching φ-features:

“[...]anaphors and their antecedents do share the same values for [φ].” (pp.107-108)

¹⁶This raises interesting issues with a Reinhart and Reuland 1993 style typology of anaphors as ±R and ±SELF. Under this analysis of English, English anaphors might be seen as +R and +SELF, in the way that Anagnostopoulou and Everaert (1999) describe for Greek. There are issues to work out if this is how English anaphors are to be analyzed (in the same way that issues arise for Greek). (Thanks to Nikos Angelopoulos for pointing this out to me.)

7.1.1 Two Analytical Approaches to φ -Features

- ◆ **Some approaches** treat bound pronouns as φ -deficient/“minimal” pronouns that get their φ -features value during the derivation – “**Derivational Approaches**”
 - ▶ Kratzer: a functional head¹⁷ values reflexive anaphors’ φ -features via Feature Transmission
 - ▶ Collins and Postal (2012): the reflexive anaphor agrees with some syntactically represented antecedent
 - ▶ Others: AGREE with the nominal antecedent values reflexive anaphors’ φ -features
 - (e.g., Heinat 2006, Reuland 2006, Rooryck and Vanden Wyngaerd 2011)
- ◆ **Others** treat bound pronouns as having their φ -features specified as soon as φ -bundles are merged/built¹⁸
 - ▶ This sort of idea is compatible with other works that do not for syntactic feature matching, but rather rely on interpretive compatibility (e.g., Heim 2008, Hicks 2009, Safir 2014)
 - ▶ Heim argues that φ -features correspond to presuppositions in the semantics, effectively (though not directly) causing φ -features of a bound pronoun to match those of the antecedent
- ◆ These different approaches handle the φ -match generalization in (56) differently
 - ▶ Question: **But how accurate is this generalization about φ -matching the antecedent of binding?**

7.1.2 English Pronoun-Antecedent Mismatches

- ◆ Let us continue by denying the universality of the generalization¹⁹
 - ▶ The pronominal possessor and the antecedent of binding need not match in φ -features:

(57) (*Spoken about a group of women*)

a. Everyone/Every woman is proud of herself / themselves/self.

b. *Everyone/Every woman is proud of itself / yourself.

(58) (*Spoken by a male-identifying individual*) (Collins and Postal 2012:vii)

I am a teacher who takes care of himself / myself.
 - ▶ The antecedent of binding is constant in these data (always a local subject)
 - ▶ In at least one acceptable variant of each sentence, the reflexive pronoun doesn’t φ -match the local subject²⁰
 - Verb agreement helps reveal when the features of the local subject antecedent are 3.SG or not
 - ▶ Observation: **The local subject need not φ -match the reflexive pronoun**
 - Presenting possible challenges for derivational approaches to the φ -features of reflexives
- ◆ Having multiple possible pronouns for a single antecedent nominal is not rare
 - ▶ Some more data:

(59) (*Spoken to a group of men*)

a. Each of you should be proud of himself / yourselves/self.

b. *Each of you should be proud of itself / myself.

¹⁷This head, in turn, will have gotten its features under a relationship with a separate nominal; e.g., the subject.

¹⁸All approaches include some amount of this, even for bound pronouns. That is, all agree: (some) pronouns (sometimes) have (some of) their φ -features specified at merge.

¹⁹The generalization can be made universal if (i) the feature-matching syntactic operation is more nuanced in how/when it applies, and/or (ii) the syntactic φ -features that value the features of the pronoun need not be the overtly manifested φ -features on the antecedent (i.e., forms like ‘you’ might sometimes spell out 1.SG features).

²⁰It is possible that the reflexive pronoun’s φ -features match some *other* features in the clause (cf. Collins and Postal 2012).

- (60) (*Spoken by a parent to a child*) (Collins and Postal 2012:245)
Mommy and Daddy need some time to ourselves / themselves.
- (61) (*Spoken to a female judge*)
 Does Your Honor doubt herself / yourself?
- (62) (*Counter-indexical context*²¹)
 a. If I were you, I wouldn’t over-exert myself / yourself.
 b. If I were them, I wouldn’t over-exert myself / themselves.

⇒ **This is a serious problem for analyses that treat the generalization in (56) as a premise/explanandum**

◆ We need some more refined generalizations

- ▶ First and foremost: what is happening in the mismatch cases above is quite similar to other non-reflexive pronouns

- (63) (*Spoken in a context where all relevant individuals are women*)
 a. Eac₅ is proud that she₅ / they₅ did so well.
 b. Does Your Honor₅ know that she₅ / you₅ will hear this case?
 c. If I₅ were you₈, I_{5.as.8} would be proud that I_{5.as.8} / you_{5.as.8} won.

- ▶ The choice of pronoun in (63) is flexible – though it is constrained
- ‘it’ would never be appropriate
- ▶ There are conditions on whether a pronoun can be used to refer to an antecedent (e.g., Heim 2008)
- As a shortcut, we will use the phrase ‘construed reference’

(64) **Construed Reference Condition in English**

An English reflexive pronoun must be able to be construed as referring to its antecedent

◆ The condition in (64) must be met, but it is not sufficient

- ▶ Compare the (a) and (b) examples below²²

- (65) (*Spoken by a women about each of the members of a group of women*)
 a. Each of us is proud of ourselves / herself.
 b. We are each proud of ourselves / *herself.
- (66) (*Spoken about the United Nations*)
 a. The U.N. finds themselves / itself in a difficult position.
 b. The U.N. member nations find themselves / *itself in a difficult position.
- (67) a. If I were them, I wouldn’t over-exert myself / themselves.
 b. If I were her, I wouldn’t over-exert myself / *herself.

- ▶ Observation: φ -mismatch is only sometimes possible, depending on the φ -features of the nominals involved

⇒ **φ -matching appears to apply differently for different types of pronouns**

- In particular, when the reflexive pronoun is 3.SG, there is an additional constraint
- Why should 3.SG be different?

²¹See Appendix G for a discussion of these contexts, as well as some experimental results.

²²Data like (65a) show that Kratzer’s (2009) analysis of German bound pronouns does not obviously extend to the pronouns in English reflexives; the form of *be* (‘is’) suggests that *v*⁰ has 3sg φ -features, which should be incompatible with building *our* from a minimal pronoun under Feature Transmission.

7.1.3 3rd Singular

- ◆ Notably, English 3.SG pronouns show the most φ -features of any person/number
 - ▶ The only pronoun that marks distinctions in gender, animacy, or genericity

(68)

	SG	PL
1	me	us
2	you	
3.M	him	them
3.F	her	
3.INANIM	it	
3.GENERIC	one	

- ◆ Observation: English 3.SG pronouns are φ -valued for gender (γ), unlike other (pro)nominals²³

(69)

	SG	PL
1	\emptyset	\emptyset
2	\emptyset	
3	$[\pm F, \pm M]$	\emptyset

- ◆ All $[\gamma:\emptyset]$ pronouns (reflexive or not) may φ -mismatch the antecedent of binding
 - ▶ So long as they adhere to the Construed Reference condition (64)
- ◆ However, $[3.SG]$ reflexive pronouns behave differently
 - ▶ They never allow φ -mismatch from their binder

- (70) a. **Each of us** is behaving **ourselves/himself**.
 b. **We** are each behaving **ourselves/*himself**.

- (71) a. If I were her, I'd be proud of **myself**!
 b. *If I were her, I'd be proud of **herself**!

- ▶ This suggests that φ -features of 3.SG reflexive pronouns are **derivationally entangled** with those of the binder²⁴
- ▶ In a different way than other reflexive pronouns

Idea: 3.SG bound pronouns are subject to additional derivational operations/constraints, due to φ -features

- ▶ 3.SG is unique in exponing γ -features
 - This suggests that γ -features trigger some process/constraint for φ -matching/valuation
- (72) **Generalization on English Gender-Conditioned φ -Match**
 If a bound pronoun has a gender φ -feature that is specified (i.e., not \emptyset), then the bound pronoun cannot have φ -features that conflict with those specified on the binder.²⁵
 - In other person-number combinations, mismatch is possible: the γ -feature can remain unspecified, and the pronoun can go unconstrained by the morphosyntactic derivation)
- ▶ This condition is purposefully stated in general, descriptive terms
 - (Different possible formal implementations which might capture (72) are briefly described in the grey box below)

²³Nothing relies on these particular γ features for 3.SG.

²⁴Perhaps because in 3.SG bound pronouns γ is inherently unvalued (requiring syntactic valuation; cf. Sundaresan 2018's 3rd-PERSON anaphor). Perhaps because γ is valued (and there are constraints on where valued γ -features can appear).

²⁵Stated more formally: If $\gamma_{\text{pronoun}} \neq \emptyset$, then $\varphi_{\text{antecedent.of.binding}} \subseteq \varphi_{\text{pronoun}}$

SOME WAYS TO FORMALLY DERIVE (72)

- ◆ I leave open the question how to formally define the φ -matching condition in (72)
 - ▶ It could be that this is about syntactic feature-checking (or valuation)
 - Perhaps 3.sg bound pronouns are indeed φ -deficient, in terms of γ , and that there is a syntactic feature-valuing process between the anaphor and an accessible γ -valuer, which may be a functional head/operator (see §G.2.2) or a nominal
 - ◇ At the same time, non-3.sg bound pronouns (including 3.sg discourse anaphoric pronouns) would have to not be φ -deficient
 - ◇ Sundaresan (2018) argues that some anaphors are φ -deficient while others are not, on the basis of Tamil and crosslinguistic data
 - ▶ It could be about interpretation of mismatches
 - Perhaps γ -features on bound pronouns is only well-formed in particular semantic/ pragmatic contexts
 - ▶ It could be that this is about vocabulary insertion and how that works
 - Perhaps it is a question of where particular feature bundles are generable and which of those maps onto an available vocabulary items

7.2 Constraints on Possible Derivations

◆ Reflexive anaphors do not uniformly get their φ -features valued in the derivation

- ▶ Premise: English reflexive anaphors structurally contain a (bound) pronoun
- ▶ Premise: Not all (bound) pronouns are completely φ -deficient
- ▶ Premise: Whenever a pronoun’s φ -features are derivationally valued, those φ -features must match the antecedent’s
- ▶ Observation: Reflexive pronouns do not always match all the φ -features of the antecedent

∴ Reflexive pronouns are not always φ -deficient

- ◆ Perhaps one could rescue a valuation-across-the-board approach by positing covert elements that give rise to the appearance of φ -mismatch, without φ -mismatch at a derivational level

- ▶ i.e., something like the following:

- (73) a. If I_5 were them₈, I_5 wouldn’t try to plan the whole thing by my₅ self!
 b. If I_5 were them₈, I_5 wouldn’t try to OP₈ plan the whole thing by them₈ selves!

- ▶ A covert-element approach would still require extra steps to explain the fact that **3.sg reflexive pronouns never mismatch their antecedents**:

- (74) a. Each of us is behaving ourselves/himself.
 b. We are each behaving **ourselves**/*himself.

- (75) a. If I were her, I’d be proud of myself!
 b. *If I were her, I’d be proud of herself!

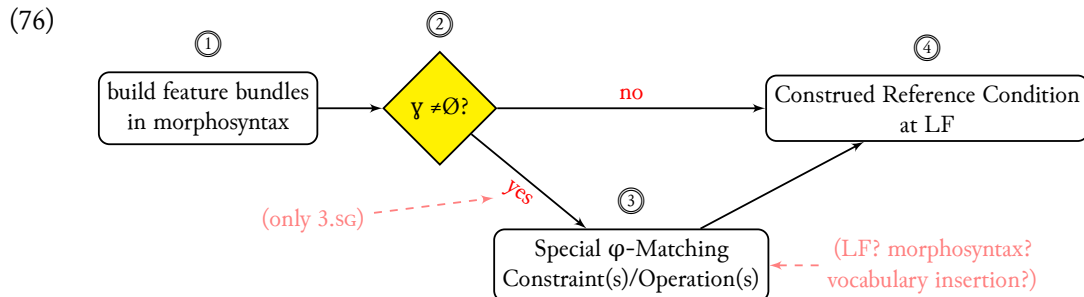
- ◇ If we can use a covert φ element in (73b), why not in (74b) or (75b)?

- ◇ (Note: this is about π and #, and not about person alone; cf. ‘them’)

∴ 3.sg reflexive pronouns require unique analysis

7.2.1 Two Routes

- ◆ 3.sg bound pronouns are unique: their γ -features must match the γ -feature of an antecedent
- ◆ In this way, there are two algorithms for determining whether a bound pronoun φ -features are compatible with an antecedent
 - ▶ One route allows for φ -mismatch between the pronoun and its binder (non-3.sg)
 - ▶ The other disallows this, through additional constraints/operations on φ -matching (3.sg)



◇ (N.B.: this is not meant as a description of the formal derivation, but rather as a descriptive algorithm for the theoretician hypothesizing about derivations)

- ▶ ①: Feature bundles are built during morphosyntax

▪ e.g., $\begin{bmatrix} \pi: 3 \\ \#: \text{pl} \\ \gamma: \emptyset \\ \text{VAR}: x \end{bmatrix}$, which spells-out as *they/them/their* and is interpreted as bound by x

- ▶ If, as is the case for 3.sg bound pronouns, ② γ is not specified as \emptyset ...

▪ ...because, e.g., *it* has γ -features valued as $[-F, -M]$...

- ▶ ... then ③: invoke a separate set of constraints/operations

▪ Perhaps these are well-formedness constraints on possible φ -feature combinations between antecedents and bound pronouns (cf. (72))

◇ (In morphosyntax? At LF? Both?)

▪ It should be noted that prospects are weak for a syntax-only solution in which the antecedent nominal values the gender φ -feature in 3.sg pronouns

◇ Because φ -compatibility with an antecedent is mediated by interpretation (cf. the construed reference constraint and discussion in §64)

- ▶ ④: All bound pronouns are subject to the Condition on Construed Reference, (64)

▪ Necessarily at LF, since it is about construal and context

- ◆ Notably the constraints/operations in ③ don't apply all the time

▶ Allowing mismatch for bound pronouns that are 3.PL, 1st person, or 2nd person

- ◆ Different bound pronouns are subject to different derivations, **depending on the pronoun's φ -feature specification in the morphosyntax**

8 φ -feature conclusions

♦ An English reflexive pronoun doesn’t always φ -match the antecedent of binding

- ▶ Though in the case of a 3.SG reflexive pronoun, it must
- ▶ English reflexive pronouns are derivationally heterogeneous
 - 3.SG reflexive pronouns must φ -match the antecedent of binding
 - They may be φ -deficient (perhaps because of γ) in a way that other reflexive pronouns are not

♦ This suggests that, assuming the underlined *herself* is the antecedent of binding in (77), reflexive anaphors may have the same φ -features as the reflexive pronouns they contain

(77) She considers herself proud of herself.

- ▶ This is curious given that the nominal *self* can have a different number than the possessive pronoun
- ▶ Each of the reflexive pronouns below is PL, but the *self* nominal is SG

- (78) a. We each gave ourselves a pat on the back.
 b. This artist expressed themselves well.
 c. {You/You guys/Y’all} all need to ask yourselves a difficult question.

- How to resolve this is an open question

♦ We should replace any generalization/analysis that mandates φ -match with the antecedent of binding with some others

- ▶ Some more refined generalizations:

(64) Construed Reference Condition in English

An English reflexive pronoun must be able to be construed as referring to its antecedent

(72) Generalization on English Gender-Conditioned φ -Match

If a bound pronoun has a gender φ -feature that is specified (i.e., not \emptyset), then the bound pronoun cannot have φ -features that conflict with those specified on the binder.

♦ These constraints are meant more as descriptive generalizations at this point

- ▶ Some explananda to be captured by a deeper analysis

♦ The generalizations are suggestive of three things

❶ Interpretation is involved

- Concepts like ‘be construed as’ in (64) are certainly interpretive

❷ These φ -features are active at LF

- Assuming interpretation is involved in where mismatches are possible (and possibly involved in what φ -features match with), this means these features are interpretable at LF
- This contrasts with the view that is quite common amongst binding theorists:
 - ◊ “The form of the anaphor (e.g. the reflexive) plays no real role in the interpretation afforded” (Drummond et al. 2011:399)
- But it suggests that what has syntactic roots (φ -features inside self-phrases) also has semantic consequence

❸ The pronoun inside an English reflexive self-phrase may ‘be born with’ its φ -features

- Since the pronoun inside a reflexive self-phrase can have independent φ -features, with interpretive effects

9 Big Picture

- ◆ Recall the morphology of reflexive anaphors in standard English in most contexts

(1)

	SG	PL
1	myself	ourselves
2	yourself	yourselves
3.M	himself	themselves
3.F	herself	
3.INANIM	itself	
3.GENERIC	oneself	

- ▶ On the basis of such a paradigm, one might be tempted towards a uniform theory of binding, all under one roof
- ◆ Shifting the sorts of data we attend to (even within English!), we might be led to a new perspective
 - ▶ The set of grammatical properties exposed by probing the internal properties of reflexives reveals that that set is **not solely the product of syntax**
 - ▶ Instead, those properties are derived through operations/constraints distributed across grammatical modules
- ◆ Suggestion: people beyond binding theorists should know this from the name of the theory. A proposal:

“Distributed Binding Theory”

- ◆ What has been described as core to binding in English-type languages is distributed across modules
 - ▶ Some of it is syntactic
 - The internal structure of reflexive self-phrases, and the locus of the [reflexive] feature within the nominal
 - Perhaps ϕ -matching cases could invoke AGREE type mechanisms, but it **can't** be active in all cases of binding
 - ▶ Some of it is postsynthetic (based on syntactic input)
 - The pronominal form of the reflexive (GEN→ACC)
 - The (lack of) interpretation of $\sqrt{\text{SELF}}$ in reflexive self-phrases
 - ▶ Some of it is semantic/pragmatic
 - Whatever determines the interpretable ϕ -features of the pronoun in mismatch cases
 - Whatever constrains mismatches in the conditional contexts
- ◆ Beyond this talk, there is more evidence that binding works this way
 - ▶ Some of it is syntactic
 - Reflexive Voice⁰ (cf. Ahn 2015a)
 - ▶ Some of it is phonology (based on syntactic input)
 - Where anaphors are prosodically weak/strong
 - ▶ Some of it is semantics (based on syntactic input)
 - What types of meanings are possible for anaphors

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APPENDIX

A Only Pronoun Possessors in Reflexive Self-Expressions

- ◆ If these are DPs, why not a wider range of possessors? (cf. Keenan 2002:§4.2.3)
 - ▶ cf. *that person’s self*, which only has a non-reflexive interpretation
 - ▶ Perhaps this is because of Principle C
 - (79) a. *Every person_i at the wedding likes that person_i’s dancing partner.
 - b. *Every person_i at the wedding likes that person_i’s self.
 - *that person*, when co-variant with *every person*, is ungrammatical
 - *that person*, as an R-expression, must be unbound throughout the expression
 - ▶ Pronouns do not have this issue, as the domain of Principle B is more local
 - (80) a. ✓Every person_i at the wedding likes [his_i dancing partner].
 - b. ✓Every person_i at the wedding likes [him_i self].
 - *him/his* only needs to be unbound within the bracketed DP, above
 - **Pronouns are possible as possessors because they are always free in their domain**
 - The structure around *self* essentially “protects” the pronoun from being bound in its domain
- ◆ What about exempt reflexives?
 - ▶ It’s not obvious that there is any Principle C violation in (81b)
 - (81) a. Kenneth₁ said that Liz₂ invited both myself₃ and the boss to dinner.
 - b. *Kenneth₁ said that Liz₂ invited both his mother’s self₃ and the boss to dinner.
 - Possible solution: If exempt anaphors are bound in the syntax (e.g., Charnavel and Sportiche 2016) by an operator in cases like (81a), then perhaps that same operator could also cause a Principle C violation in (81b)

B Alternative (Problematic) Analysis: *Self* as the Locus of Reflexivity

- ◆ Alternative proposal: *self* is the locus of semantic and morphological reflexivity.
- ◆ Such a proposal causes problems for solving the CASE PUZZLE:
 - ▶ The morphological rule would then hold that GEN→ACC is triggered under locality with *self*.
 - This requires either...
 - ◇ (i) that there be two √SELF's (see below about would not help us solve the MODIFIER PUZZLE), or
 - ◇ (ii) that there is only one √SELF but √SELF is inalienably possessed only in reflexives (in order to prevent GEN→ACC from occurring in non-reflexive self-phrases).
 - Assuming there is only one √SELF (and so option (ii) above is the more plausible alternative)...
 - ◇ The inalienable possessor of √SELF could not be merged in spec,NP, because then I-level modifiers (and “own”) wouldn’t be predicted to intervene/block GEN→ACC.
 - ▷ The inalienable possessor must be merged in a PossP that can be separated from NP by OwnP and I-level modifiers (blocking GEN→ACC).
 - ◇ But, because the inalienable possessor is so far away from √SELF (specifier of a higher, independent projection, PossP), it’s not clear what sort of morphological rule would hold these as being local to each other at any point in the derivation, which is itself necessary to get GEN→ACC to happen at all.
 - ▷ A possible solution: GEN→ACC is triggered under linear locality between the possessor and √SELF
 - ▷ But, this still has a problem: The Poss head should be linearized in between the possessor and the √SELF root morpheme, blocking locality.
 - VI can’t have already taken place, rendering Poss “null”, because then it would be too late to affect the choice of GEN or ACC pronoun.
 - ◆ Such a proposal also causes problems for solving the MODIFIER PUZZLE:
 - ▶ There would be no obvious reason why InflP (S-level modifiers) would block reflexivity while ownP (and potentially I-level modifiers) would not block it.
 - (Recall: InflP blocks reflexivity because it disturbs local relationship between Refl and D; but ownP should disturb locality between √SELF and D in the same way as InflP does.)
 - ▶ However, whenever we have Refl, there is also a √SELF morpheme
 - Could be modeled as Refl selecting an NP headed by √SELF
 - Leading to the illusion that √SELF (and not Refl) is relevant

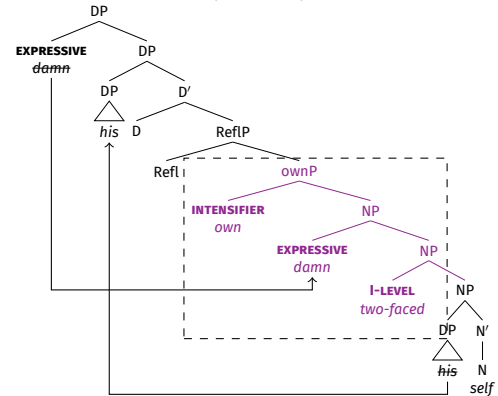
C GEN→ACC and Timing

C.1 Timing and Ordering of Expressives

- ◆ Recall GEN→ACC must take place *before* VI
 - ▶ If it applied after VI, it would have no effect on the vocabulary item chosen by VI (*him* vs. *his*)
 - ▶ This timing interacts with the reordering of expletives to occur after the pronoun possessor
- ◆ Expressive modifiers originate outside of the DP
 - ▶ Like appositives, they convey not-at-issue content, and are treated as outside the DP (Potts 2007)

- ▶ Pfaff (2015) argues, based on Icelandic morphology, they are outside the scope of the D
- ◆ But expressives end up between the possessor pronoun and the *self*
 - ▶ Expressives can reach this position one of two ways: “lowering” and expletive-infixation
- ◆ First: lowering
 - ▶ In the lowering of expressives in reflexive self-phrases, *damn* originates in the nominal left periphery and always lands between *own* and I-level adjectives

- (82) a. his own damn two-faced self (37) *his own damn two-faced self* (reflexive)
- b. *your damn own two-faced self
- c. *your own two-faced damn self
- d. his own damn self
- e. his damn two-faced self
- f. his damn self
- g. himself



- (82c) may be judged as good, if the speaker allows *damn* to be phonologically infixed (not every dialect allows this)
 - ▶ We tentatively analyze this as lowering because it targets a particular syntactic position: the NP edge
 - ▶ If this lowering is post-syntactic, it must be very shortly after syntax
 - It precedes the GEN→ACC rule, in order for *damn* to intervene in (82f)
- ◆ Second: expletive-infixation
 - ▶ Expressives that can undergo expletive infixation (e.g., *bloody*, *fricken*, *goddamn*, *fucking*) exhibit different properties
 - ▶ These can appear with ACC 3rd person pronouns

(83) a. him-fuckin/bloody/frickin/goddamn/*damn-sélf

b. abso-fuckin/bloody/frickin/goddamn/*damn-lútely

 - There may be dialects that allow *him-damn-self*: we predict that those dialects that do allow that would also allow *abso-damn-lutely*
 - ◇ (i.e., the locus of variation is whether or not *damn* is the kind of thing that can undergo expletive infixation)
 - ▶ Infixation is sensitive to PF properties: the expressive must immediately precede the stressed syllable

(43) ALIGN(R, -freakin-, L, stressed foot) (cf. Yu 2003)
 - ▶ Expressive-infixation must happen after lexical stress is determined
 - Lexical stress cannot be determined until *after* Vocabulary insertion
 - (Possibly still in MS)

BROAD CONCLUSION

- ◆ Expressive modifiers like *frickin* or *goddamn* have two ways to get linearized between the pronoun and the *self*
 - ① reordering before VI (in/before MS)
 - ② reordering after VI (in/after MS)
- ◆ **Some post-syntactic operations seem to need to occur in a fixed order**
 - syntax *before* GEN→ACC *before* VI *before* infixation

C.2 Copies

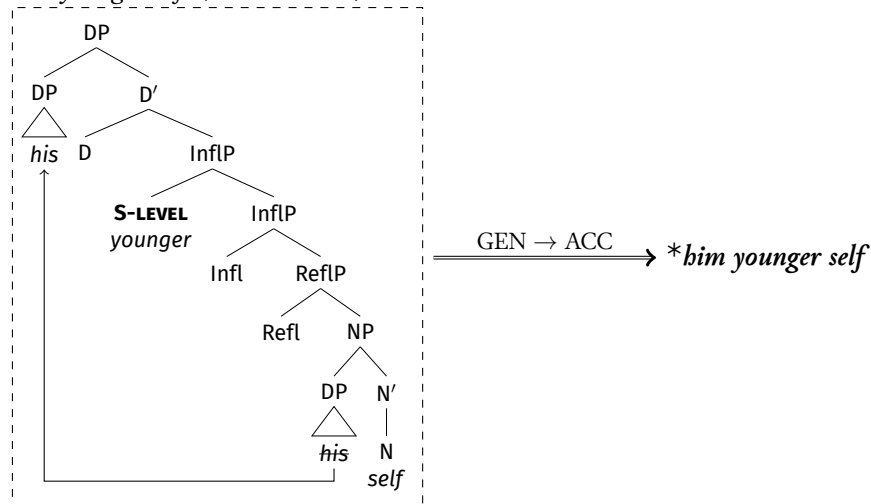
- ◆ Expressive-lowering feeds GEN→ACC
 - This should mean it is a phase-bound operation (due to the PIC)
 - Its phase-bound nature means DP is one phase
- ◆ In this way, the possessor pronoun will have made it to Spec,DP by the time GEN→ACC can apply
 - But we also need to have GEN→ACC see the pronoun in Spec,NP
- ◆ We appeal to copy theory of movement
 - The low(est) copy is in the conditioning environment for the GEN→ACC rule
 - The high(est) copy is linearized
- ◆ Changes to one copy affect the other
 - Because MS will see them as copies of one another (and not different elements in the numeration)
 - (*For other cases where post-lexical marks associated with one member of a chain are realized in other members of the chain, see: See Selkirk 1995, McPherson 2014, Ahn 2015b*)

D Could ReflP occur in non-reflexive self-phrases?

- ◆ In §4.1, the formal analysis of how to derive the incompatibility of REFLP and InflP in nominals
 - Below we identify four possible hypotheses about the locality relationship between D and Refl, to explain where a self-phrase can be reflexive
 - **Hypothesis A:** InflP and ReflP both require sisterhood with D, essentially causing complementary distribution
 - **Hypothesis B:** ReflP needs to be licensed by a local relationship with the reflexive D (e.g., AGREE), and InflP acts as an intervener
 - **Hypothesis C:** Refl must raise to D; Infl blocks this raising (HMC, Travis 1984)
 - **Hypothesis D:** the D in reflexives must lower to Refl; Infl blocks this lowering
- ◆ A fifth (ill-formed, as described below) alternative hypothesis might allow Refl in any self-phrase, even non-reflexive ones like *your younger self*:
 - **Hypothesis E:** a D(P) gets interpreted as reflexive when it is local to Refl(P)
 - Interpretation can be determined according to locally-based rules of allosemy; the interpretation of D is dependent on its sister (cf. Marantz 2013's outline of allosemy)
 - However these locally-based rules of allosemy are formulated, Infl blocks locality between Refl and D, thereby blocking reflexive interpretation
- ◆ While Hypothesis E is plausible, **our solution to the MODIFIER PUZZLE precludes it.**

- Hypothesis E predicts this structure is possible and non-reflexive: InflP blocks locality between Refl and D, yielding a non-reflexive interpretation.

(84) **him younger self* (non-reflexive)



- But, this structure predicts that the possessor pronoun will undergo GEN→ACC, since the pronoun is local to Refl. *This prediction is incorrect.*
- ◆ Instead, it must be that Refl is absent altogether, so as to *not* trigger GEN→ACC, cf. (35).

E History of English Pronoun+Self

- ◆ Where did this pronoun+*self* as an expression of reflexivity originate?
 - Keenan (2002): pronoun+*self* forms occur as reflexive since c.1200
 - Keenan: this was a re-analyzed form consisting of a pronoun frozen in DAT case form (syncretic with ACC) and adnominal modifier *self* in a frozen NOM (uninflecting) form.
 - ◇ This adnominal modifier is the *self* that leads to the label “self-type reflexive” in, e.g., Kiparsky 2008
 - Keenan: *self* was not a N in 13th c; it never bore plural markers even when the pronoun was plural
 - Keenan: 1st/2nd person singular pronouns in DAT case form were the only DAT pronouns that were light syllables; a phonological reduction process targeting light syllables thus reduced just the 1st/2nd person singular DAT pronouns, which made them look like their GEN counterparts.
 - By the mid-1300s, This phonological reduction seems to have brought about a reanalysis of all 1st/2nd person pronouns in a self-phrase (not just the singular pronouns) as being GEN pronouns
 - *self* at the same time may have been starting to get interpreted as an N, reinforced by the GEN (possessive) pronoun
 - At the same time (up until now), the 3rd person continued to surface in ACC/DAT form
 - Despite reanalysis of *self* as a N
- ◆ We propose:
 - Once 1st/2nd person pronouns in self-phrases were reanalyzed as GEN, so were 3rd person pronouns
 - The syntax of inalienable possession was assigned to self-phrases
 - Which was made possible/plausible by whatever mechanisms make inalienably possessed Ns occur in reflexive markers (see §5.3)

- ▶ But an analysis had to be given to 3rd person so as to allow a DAT/ACC surface form
 - This led to the birth of the GEN→ACC rule
 - Which was made possible/plausible by the syntax of inalienable possession + nominal-internal ReflP
- ▶ By Early Modern English:
 - The GEN→ACC rule is an auxiliary addition to the reflexive structure
 - Independent of reflexive structure

F Deriving Well-/Ill-Formed φ -Mismatch

- ◆ Our two constraints

(64) Construed Reference Condition in English

An English reflexive pronoun must be able to be construed as referring to its antecedent

(72) Generalization on English Gender-Conditioned φ -Match

If a bound pronoun has a gender φ -feature that is specified (i.e., not \emptyset), then the bound pronoun cannot have φ -features that conflict with those specified on the binder.

- ◆ Let's consider some data and state explicitly how the well-/ill-formedness for each is predicted

(85) **The team** will do it by **itself**

- Since γ is specified for *it*, ③ is operative, and the φ -features of the antecedent match

(86) *#**They** will do it by **itself**

- Since γ is specified for *it*, ③ is operative, but the φ -features of the antecedent (namely PL) do not match, resulting in ungrammaticality and/or infelicity

(87) **The team** will do it by **themselves**

- Since γ is not specified for *them*, all that matters is Weak Identity, which can be met in this context

(88) *#**He** will do it by **itself**

- Since γ is specified for *it*, ③ is operative, but the φ -features of the antecedent (namely M) do not match, resulting in ungrammaticality and/or infelicity

(89) #**He** will do it by **themselves**

- Since γ is not specified for *them*, all that matters is Weak Identity, which cannot be met in this context: *he* cannot be construed²⁶ as a group or as having non-binary/unknown/irrelevant gender, resulting in infelicity

(90) **This person** will do it by **themselves**

- Since γ is not specified for *them*, all that matters is Weak Identity, which can be met in this context: *this person* can be construed as having non-binary/unknown/irrelevant gender

²⁶While changing pronoun reference for an individual is possible over the course of a conversation, it appears not to be possible within a clause – at least not here. This is probably akin to alternating between informal and formal pronouns for a single individual (an idea inspired by the work of Kirby Conrod). It is an open question as to what constrains there are about changing pronouns used to refer to an individual.

G Counter-Indexical Contexts

G.1 Rating Task

- Native-speaker linguist judgments were checked with a pilot study on Amazon Mechanical Turk ($n=78$)

- Participants rated sentences of the form (91), as in (92)

(91) If [ANTECEDENT] were [ANAPHOR], [ANTECEDENT] would [PREDICATE] [ANTECEDENT]

(92) If I were you, I would be proud of myself.

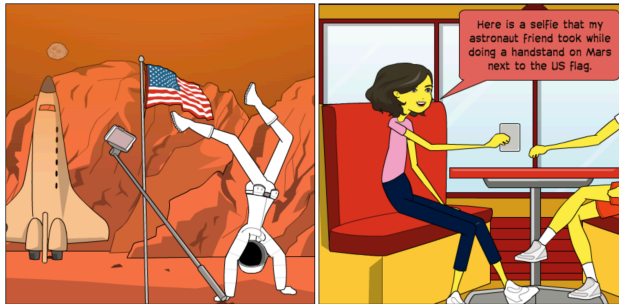
- Tested a subset of ϕ -features on the antecedent and on the anaphor

- Antecedent: 1.SG or 1.PL
- Anaphor: 2.SG, 3.SG, 2.PL, 3.PL

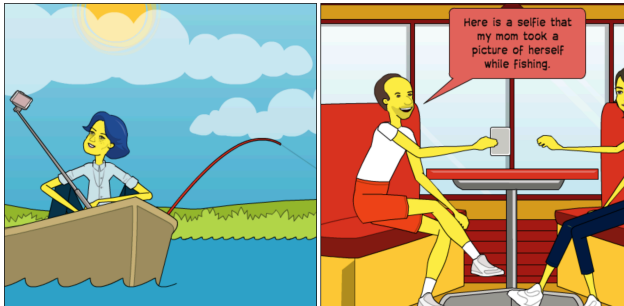
- Each sentence was accompanied by a comic strip to provide context

- Introduction to the task:

- “Here is a selfie that my astronaut friend took while doing a handstand on Mars next to the US flag”

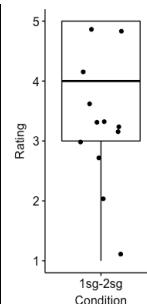


- “Here is a selfie that my mom took a picture of herself while fishing”

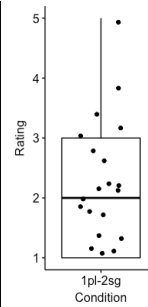


- Target Stimuli:

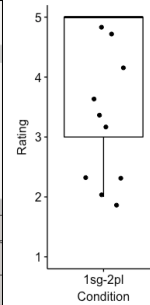
- “If I were you, I’d do yourself a favor and bring food”



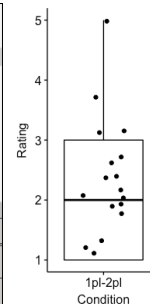
- “If we were you, we’d do yourself a favor and bring food”



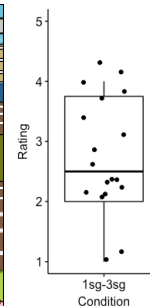
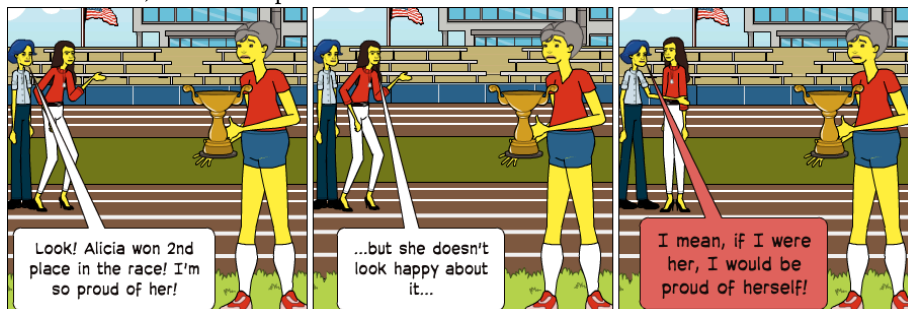
- “If I were you guys, I wouldn’t try to move the fridge by yourselves”



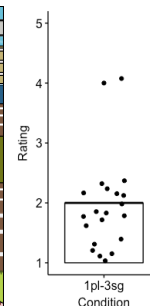
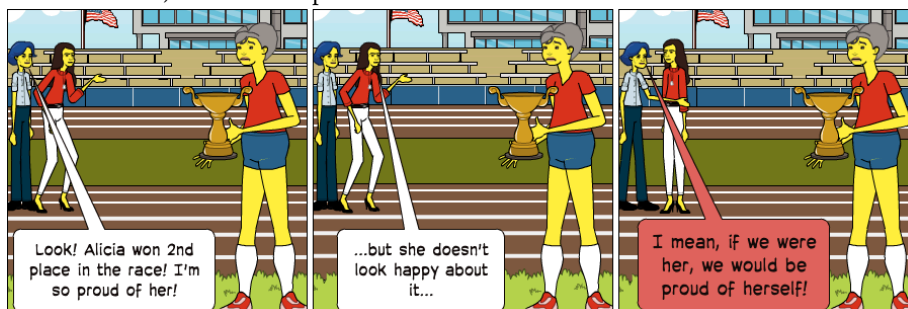
- “If we were you guys, we wouldn’t try to move the fridge by yourselves”



- “If I were her, I would be proud of herself”



- “If we were her, we would be proud of herself”



- ▶ “If I were you, I wouldn’t try to plan the whole thing by themselves!”

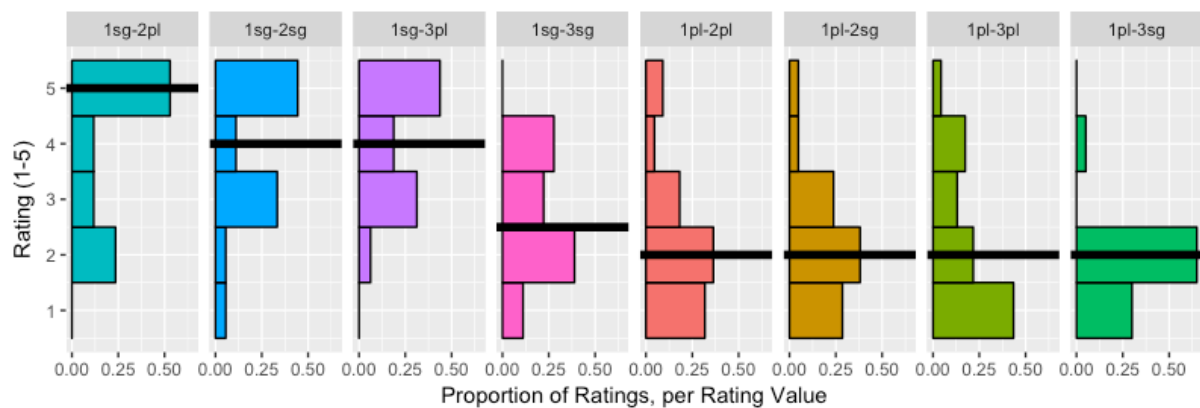


- ▶ “If we were you, we wouldn’t try to plan the whole thing by themselves!”



◆ Summary of results:

Ratings of Mismatches, by Condition



- ▶ There is a sharp change in the distribution of the ratings when the constraints on antecedents/pronouns are not met²⁷ (*Dark black lines indicate median score*)
- ▶ Median scores so far are given below (1=“unnatural”; 5=“natural”)

(93) Ratings for ϕ -mismatch anaphors in conditionals

		Anaphor					
		1.SG	2.SG	3.SG	1.PL	2.PL	3.PL
Ant.	1.SG	–	4	2.5	–	5	4
	1.PL	–	2	2	–	2	2

- ▶ T-tests confirm what can be seen visually above (data formatted as “*T-value*; *p* significance”)

²⁷A full-fledged follow-up study is in progress.

	1pl-2pl	1pl-2sg	1pl-3pl	1pl-3sg	1sg-2pl	1sg-2sg	1sg-3pl
1pl-2sg	-0.1; ns						
1pl-3pl	-0.1; ns	-0.1; ns					
1pl-3sg	-1.2; ns	-1.1; ns	-1.1; ns				
1sg-2pl	4.7; ***	4.7; ***	4.9; ***	5.7; ***			
1sg-2sg	4.5; ***	4.5; ***	4.7; ***	5.5; ***	-0.3; ns		
1sg-3pl	4.8; ***	4.8; ***	5.0; ***	5.8; ***	0.2; ns	0.4; ns	
1sg-3sg	1.2; ns	1.3; ns	1.4; ns	2.4; ns	-3.3; *	-3.1; *	-3.4; *

Pairwise comparisons using t tests with pooled SD (df=147)

- ▶ The 3 conditions deemed grammatical by native speaker linguists (**1sg-2pl, 1sg-2sg, 1sg-3pl**) were **all given ratings significantly different from** (in a positive direction) **the other conditions**
 - In addition, the ratings given to the 1sg-3sg condition was not significantly different from the ratings given to the conditions with 1PL antecedents
- ▶ This corroborates the generalizations that 3sg pronouns cannot mismatch their antecedents, and that mismatch requires the antecedent to be 1sg

G.2 Generalizations on φ -Mismatch in English Counter-Identicals

G.2.1 An Initial Three Constraints on Counter-Indexical φ -Mismatch

❶ The embedded clause must be in the irrealis mood

- (94) a. If I₅ were you₈, I_{5,as,8} would buy myself_{5,as,8} / **yourself**_{5,as,8} a new car.
 b. When I₅ was you₈ in a dream, I_{5,as,8} bought myself_{5,as,8} / ***yourself**_{5,as,8} a new car.

- ▶ Perhaps the semantics of irrealis mood is necessary
- ▶ Perhaps it has to do with an operator in the syntax, introduced by irrealis mood

❷ The antecedent has to be 1.sg

- (95) a. If I₅ were you₈, I'd do it myself_{5,as,8} / **yourself**_{5,as,8}.
 b. If we₅ were you₈, we'd do it ourselves_{5,as,8} / ***yourself**_{5,as,8}.
 c. If you₅ were me₈, you'd do it yourself_{5,as,8} / ***myself**_{5,as,8}.

- ▶ Perhaps this has to do with semantic/syntactic privileges afforded to the speaker of the utterance

❸ A 3.sg reflexive pronoun can't mismatch the antecedent

- (96) a. If I₅ were her₈, I'd be proud of myself_{5,as,8} / ***herself**_{5,as,8}
 b. If I₅ were him₈, I'd be proud of myself_{5,as,8} / ***himself**_{5,as,8}
 c. If I₅ were them₈, I'd be proud of myself_{5,as,8} / **themselves**_{5,as,8}
 d. If I₅ were them₈, I'd be proud of myself_{5,as,8} / **themselves**_{5,as,8}

- ▶ Recall that this is a constraint on syntactic φ -features and not number of referents: examples with *themselves/themself* are fine with singular referents

G.2.2 Three Additional Generalizations

❹ The antecedent cannot be a local object(?), though passive subjects will do

- (97) If I₅ were in your₈ shoes...
 a. I_{5,as,8} 'd ask the administrator to assign me_{5,as,8} to myself_{5,as,8} / ***yourself**_{5,as,8}

- b. I_{5,as.8}’d ask the administrator to assign **you**_{5,as.8} to yourself_{5,as.8} / ***myself**_{5,as.8}
- c. I_{5,as.8}’d ask the administrator to assign the task(s) to myself_{5,as.8} / **yourself**_{5,as.8}
- d. I_{5,as.8}’d ask **PRO**_{5,as.8} to be assigned to myself_{5,as.8} / **yourself**_{5,as.8}

- Notice the interpretation here
 - In the irrealis clause, all pronouns/anaphors are interpreted in the same way: me-in-your-shoes
 - This yields maps onto a reflexive predicate: two identical (enough) arguments
- Perhaps this is a condition on interveners?
 - That would mean that, in CID contexts, there are syntactically-specified features/operators that lead to the apparent mismatch
- In this way, ‘*me*’ in (97a) intervenes between the reflexive pronoun and the feature/operator that allows it to have an interpretation of 5.as.8
 - Similarly for ‘*you*’, as in (97b), but 3rd person expressions do not intervene, as in (97c)
 - This sounds like 1/2 blocks long distance antecedents
- Of course, the 1st person subject doesn’t intervene between the features/operators and the bound pronoun
 - So the relevant features/operators must be lower than subject position, in the middle-field, but not in the high left-periphery of the clause
 - This is a similar position to where modality might be specified; recall that irrealis mood is necessary for mismatch in CID contexts
- Moreover, if *me* is interpreted as in the non-counterfactual sense, then mismatch is possible again

(98) If I₅ were in your₈ shoes, I_{5,as.8}’d ask them to assign me₅ to myself_{5,as.8} / **yourself**_{5,as.8}

 - This suggests that the two pronouns in object position need to match *only* if both are interpreted counterfactually

⑤ Mismatch is impossible if there is another matching anaphor in the predicate/clause

- (99) a. If I₅ were you₈, I_{5,as.8}’d keep **myself**_{5,as.8} to myself_{5,as.8} / ***yourself**_{5,as.8}
 b. If I₅ were you₈, I_{5,as.8}’d keep **yourself**_{5,as.8} to yourself_{5,as.8} / ***myself**_{5,as.8}

- This suggests some kind of grammatical constraint that, when the mechanism that allows mismatch applies, it applies uniformly
- (Perhaps this is defined by the scope of some operator in the middle-field)

⑥ Adnominal ERs don’t allow mismatch, (100); even though agentive ERs and by-Xself do, (101)

- (100) a. If I₅ were you₈, I_{5,as.8} would myself_{5,as.8} / ***yourself**_{5,as.8} formulate it differently
 b. If I₅ were you₈, I_{5,as.8} myself_{5,as.8} / ***yourself**_{5,as.8} would formulate it differently

- (101) a. If I₅ were you₈, I_{5,as.8} would do it myself_{5,as.8} / **yourself**_{5,as.8}.
 b. If I₅ were you₈, I_{5,as.8} would do it by myself_{5,as.8} / **yourself**_{5,as.8}.

- (See Ahn 2010 for a discussion of these terms; in this case, it is similar to the notion of *additive* vs. *exclusive* intensifiers employed by Eckardt 2001)
 - At the same time, it’s not that adnominal ERs must match the ‘real’ antecedent; it can match a local counter-identical pronoun

- (102) If I₅ were you₈ ...
 a. I_{5,as.8} would describe **you**_{5,as.8} **yourself**_{5,as.8}.
 b. I_{5,as.8} would describe **me**_{5,as.8} **myself**_{5,as.8}.

- But in those cases, the adnominal ER cannot mismatch its antecedent

(103) If I₅ were you₈

- a. *I_{5.as.8} would describe **me**_{5.as.8} **yourself**_{5.as.8} .
- b. *I_{5.as.8} would describe **you**_{5.as.8} **myself**_{5.as.8} .

- ▶ Perhaps adnominal ERs (unlike adverbial ones) are too local to their antecedent, and no operators/heads intervene to yield a surface-mismatch

G.2.3 Suggestions Towards Understanding CID Constraints

- ♦ Counter-indexical contexts suggest that the mismatch is influenced by the syntax/semantics of mood and of scope/intervention
 - ▶ In particular, there appears to be some sort of operator in the inflectional middle-field or perhaps in the low left periphery in the verbal spell-out domain
 - This will cause everything to shift together
 - ▶ The inflectional middle-field seems a likely choice, given the facts about modality
 - Perhaps irrealis modals (that are in the middle-field) co-occur with the proper syntactic/semantic material to license apparent mismatch
- ♦ In this way, these CID contexts give the appearance of mismatch, but perhaps local match could be happening between the bound pronoun and the covert head/operator
 - ▶ Still unexplained: Why does this only happen with 1sg subjects? Why are the *you* and *we* subjects in (94) unacceptable?
- ♦ If there is local functional material that drives apparent mismatch in CID contexts, what blocks a 3.sg bound pronoun?
 - ▶ i.e., What about the covert material is incompatible with a 3.sg pronoun in the anaphor?
 - ▶ Perhaps it's that the feature matching constraint described in (72) can't be met with this silent material as a binder
 - (Perhaps this head/operator doesn't have the \bar{y} -features necessary to match/value those of the 3.sg pronoun)