

Investigations into *-Self* Expressions*

Byron Ahn (bta@princeton.edu)

Princeton University

Ana-Log Workshop, Harvard University

1 Introduction

- ♦ ‘Standard’ paradigm for English reflexive anaphors – henceforth, “**self-phrases**”:

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

- ♦ Some questions for today:

❶ Is this paradigm reflexive anaphors composed of a fixed set of expressions?

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

❷ Is each reflexive anaphor a lexical item that is marked as [+anaphor] in the lexicon?

- (Perhaps anaphors are the spell-out associated with [+anaphor] feature bundles?)

❸ What governs the case forms (GEN *my* vs. ACC *him*) of the pronominal portion of the anaphor?

- (Or is it just a historical accident? cf. Keenan 2002)

❹ What governs the φ -features of the pronominal portion of the anaphor?

- (Is it managed by syntactic operations? cf. Reuland 2006, Kratzer 2009, Rooryck and Vanden Wyngaerd 2011)

❺ What can we learn about binding from investigating these anaphor-internal properties?

- (Is this interesting?)

- ♦ Some findings, to be motivated:

- ▶ English reflexive self-phrases are morphosyntactically complex **derived objects**
- ▶ There is a **nominal REFL⁰**, and it is responsible for a self-phrase distributing as a reflexive anaphor
- ▶ The case form of the pronoun inside a self-phrase is governed by **morphological rule** sensitive to REFL⁰
- ▶ φ -features in a self-phrase can mismatch its antecedent, **undercutting AGREE-based accounts**
- ▶ This investigation will suggest that “Binding” operations/constraints are **distributed across the Grammar**

*A portion of this research is joint work with Laura Kalin (see Ahn & Kalin *Forthcoming*).

2 Internal Structure of Reflexive Self-Phrases

- ♦ We will see that English reflexive self-phrases are morphologically complex
 - ▶ There is a nominal (*myself*)
 - ▶ There is a pronominal possessor (*myself*)
 - ▶ There is a reflexive morpheme that triggers some allomorphy in reflexive self-phrases

2.1 *Self* is a Nominal

- ♦ This is apparent with cases of English's object-incorporation-like compounding process, as below:
 - (2) a. They are completely **self**-reliant.
 - b. They rely on **themselves** completely.
 - (3) a. He is a **self**-described polyglot.
 - b. He describes **himself** as a polyglot.
 - (4) a. We chose the **self**-install option.
 - b. We chose the option to install it **ourselves**.
 - (5) a. This is a **self**-driving car.
 - b. This car drives **itself**.
 - ▶ This looks quite like other compounding, in which what is adjacent to the V is a bare N
 - (6) a. She is a **pretzel**-eating Philadelphian.
 - b. She is a Philadelphian who eats **pretzels**.
- ♦ *self* also inflects for number: *self/selves*
 - ▶ A property only of nouns in English
- ♦ Conclusion: ***self* in English reflexives anaphors is a nominal** – see Postal (1966:182):
 - (7) “...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, etc. [...] Notice also the self/selve plural alternation parallel to that in such unquestioned noun stems as wife/wive, life/ live, etc.”

HISTORICAL CHANGE

- ♦ In older forms of English (and still in other Germanic languages), the *self* morpheme is an adnominal intensifier¹
 - ▶ It lacked nominal distribution, didn't inflect like a nominal, etc. (cf. Keenan 2002)
- ♦ Now *self* is **certainly nominal**
 - ▶ Given evidence like compounding, pluralization, etc.

¹In fact, this difference is almost certainly related to the other differences between English reflexive anaphors and reflexive anaphors in other Germanic languages (e.g., absence/presence of possessive pronouns within the anaphor, and possibly even (un)availability of long distance binding).

2.2 The Pronoun is a Possessor

♦ Postal continues:

- (8) “If, however, the stem self/selve in reflexive words is a noun stem, what is the preceding element my, our, him, etc. ? My answer is that they are, of course, articles, definite articles, in fact genitive type definite articles.”

♦ Evidence for this is mostly obviously seen in surface form

- (9) a. I will defend **myself**.
b. You can do it **yourselves**.

► (We will return to the question of 3rd person anaphors shortly)

♦ Additionally, Headlines allows for null bound pronoun possessors

- (10) a. ...Bill O'Reilly embarrasses self, colleagues, country... (http://wapo.st/1TYFgoH)
b. Bill O'Reilly embarrassed **himself**, **his** colleagues, and **his** country.

- (11) a. Speilberg thanks family at award ceremony
b. Speilberg thanked **his** family at the award ceremony.

♦ Conclusion: **the pronoun is in a possessor in the D-layer**

3 Two (Seemingly Unconnected) Puzzles

♦ Given these premises, there are two puzzles, regarding English reflexive anaphors

- ① **The CASE PUZZLE:** In many ‘standard’ varieties of English, the case of the pronoun in a reflexive differs across reflexives of different persons, (12):²

- (12) a. \checkmark yourself (\checkmark GEN) vs. *youself (*ACC)
b. *hissself (*GEN) vs. \checkmark himself (\checkmark ACC)

▪ If the pronoun is always a possessor, **why is it sometimes GEN and sometimes ACC?**

- ② **The MODIFIER PUZZLE:** Some self-phrases distribute as reflexives, (13a), while others (just like simple pronouns) do not, (13b).³

- (13) a. \checkmark You better behave {yourself/your annoying self/your damn self}.
b. *You better behave {you/your tired self/your young self}.

▪ **What governs which sorts of self-phrases can be reflexive?**

♦ Probing these puzzles about the **internal structure**⁴ of “**self-phrases**” leads to the conclusion that:

- These pronouns are all possessors in the syntax
► In (13a), there is a reflexivizing morpheme (**not** \checkmark SELF) in a local relationship with D⁰

²There are varieties of English that allow e.g. “hissself” as the 3SG.M reflexive. There are also varieties of English that allow /miself/ as the 1SG reflexive. This important issue of dialect variation is briefly addressed in Appendix B.

³Note the prosody: in (23a), the main stress of the sentence falls on “behave”, in discourse-neutral contexts. This is like subject-bound reflexive anaphors, in general (cf. Ahn 2015a).

⁴See also Iatridou 1988, Anagnostopoulou and Everaert 1999, Collins et al. 2008, and Patel-Grosz 2013 for other discussions/investigations on the internal structure of reflexive anaphors, and their relationship to interpretation/distribution, in different languages/dialects.

3.1 Pronominal Form in Reflexives: The CASE PUZZLE

3.1.1 Observations and Hypothesis

- ♦ English reflexive self-phrases appear exceptional in 3rd person:

- (14) a. 1st/2nd person: myself, ourselves, yourself, yourselves (= GEN + self/selves)
 b. 3rd person: himself, herself, itself, oneself, themselves⁵ (= ACC + self/selves)

⇒ **Observation:** The pronominal component is GEN in non-3rd person, ACC in 3rd person.

- ♦ BUT, consider reflexive self-phrases that contain a modifier:

- (15) 1st/2nd person: GEN (no change)

- a. myself → my own/damn self
- b. ourselves → our own/damn selves
- c. yourself → your own/damn self
- d. yourselves → your own/damn selves

- (16) 3rd person: GEN (*ACC)

- a. himself → **his** own/damn self (*him own/damn self)
- b. themselves → **their** own/damn selves (*them own/damn selves)

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

- ♦ **Hypothesis:** These pronouns are all GEN, but **3rd person surfaces as ACC (in certain environments)**

- ▶ “GEN→ACC”

MODIFIERS NARROW THE HYPOTHESIS SPACE

- ♦ This rules out any analysis in which reflexives are simplex/idiomatic
 - ▶ (This is suggested in passing in, e.g., Safir 2004:§6.2.3 and Rooryck and Vanden Wyngaerd 2011:§2.5.1)
 - ▶ The presence of a modifier changes the form of the pieces of the idiom/atom
 - ▶ Presumably *him* would be considered some un-analyzed part of the himself idiom/atom, preventing it from productively alternating with *his*
- ♦ It also strongly argues against analyses in which the pronoun is “deeply” ACC
 - ▶ Such an analysis would require GEN pronouns to be the result of two separate processes, which seem unable to be unified:
 - ACC 1st/2nd person pronouns become GEN across the board
 - ACC 3rd person become GEN in the presence of a modifier
 - ▶ Alternatively, if only 3rd person is “deeply” ACC, the questions become: “why?” and “why would modifiers change that?”

⁵We tentatively include *herself* and *itself* with the other 3rd persons; we leave them out of the case illustrations going forward.

3.1.2 Beyond Simple Accounts

◆ **Simple linear adjacency** between the pronoun and *self* is **insufficient** to predict ACC/GEN

- Consider possessors of non-reflexive self-phrases:

- (17) a. After spending two years in meditation, { $\sqrt{\text{his}}$ / $\sqrt{\text{him}}$ } self was fully realized.
 b. After spending two years in meditation, { $\sqrt{\text{their}}$ / $\sqrt{\text{them}}$ } selves were fully realized.

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

◆ But isn't there a reflexive $\sqrt{\text{SELF}}$ and a separate non-reflexive $\sqrt{\text{SELF}}$?

- **This is highly suspicious**, for several reasons – two below:

- **Morphophonology:** all usages of *self* have the non-productive plural form *selves*
 - ◇ / selvz / always (/ selfs / is bad in any context)
 - ◇ Suggesting a single $\sqrt{\text{SELF}}$ undergoing the same allomorphy
- **Typology:** Body-part (and other inalienably possessed) nouns are ubiquitous 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)
- Wherever this multiple $\sqrt{\text{SELF}}$ s hypothesis arises, we will have evidence to argue against it

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

◆ **Any adjacency-based account fails** to predict the following as well:⁶

- (18) 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 that disrupts the linear adjacency between the pronoun and *self*

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

- Because there are **two different derivations** to get *fucking* between the pronoun and $\sqrt{\text{SELF}}$
 - ◇ 'Normal' syntactic modification (before vocabulary insertion)
 - ◇ Infixation (after vocabulary insertion)
 - ▷ (Specifics laid out in §3.2)
- Analysis: Derivational timing matters

◆ What this expanded set of data shows us:

- (19) **GEN**→**ACC** (to be revised)

Third person pronouns in English self-phrases (underlyingly GEN) surface as ACC when...

- a. ...**the phrase is reflexive** (not conditioned by $\sqrt{\text{SELF}}$, cf. (17)), and...
 b. ...**at some point in the derivation** (not necessarily reflected in the surface string, cf. (18)).

⁶Thank are due to Kaeli Ward for the observation that *himself* alternates with *his-fucking-self*, which inspired this project.

3.1.3 Basic Solution

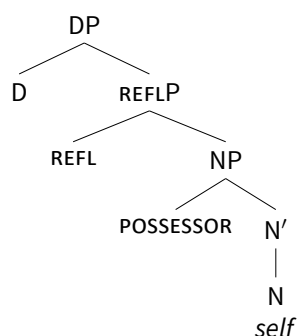
◆ Assumptions

- ▶ The framework of Distributed Morphology (Halle and Marantz 1993, 1994)
 - The output of syntax feeds (i) Semantics/Pragmatics (LF) and (ii) Morphophonology (MS/PF)
 - Features that feed both LF and MS/PF must 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.*).

◆ Proposal

1. (19b): GEN→ACC “**at some point in the derivation**” = before Vocabulary Items are inserted
 - GEN→ACC only impacts the surface form of the pronoun
 - ◇ *them* vs. *their* has no impact on distribution or interpretation (no impact on reflexivity)
 - ◇ This suggests the timing is on the way from syntax to surface phonology (*refined in §3.3*)
2. (19a): GEN→ACC when “**the phrase is reflexive**” = contains an abstract reflexivizing head, REFL

(20) REFL as a functional head in the middlefield of the nominal



- The intuition that there are two *self* words is still essentially right under this analysis – one occurring with this REFL⁰, and one not.
 - ◇ In reflexive contexts, $\sqrt{\text{SELF}}$, like $\sqrt{\text{HEAD}}$ or $\sqrt{\text{BONE}}$ in other languages, apparently 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)
 - ◇ Controlled by presence/absence of the REFL⁰ and principles of ‘local allosemy’ (cf. Marantz 2013)
- Support for representing REFL in the syntax:
 - ◇ REFL must be represented at LF, since it affects interpretation.
 - ◇ REFL must be represented at MS/PF, since it is the trigger for GEN→ACC.

► A loose formalization of GEN→ACC:

■ **Locality between the pronoun and the REFL head is what matters**

(21) **GEN→ACC Rule**

GEN→ACC / REFL [[CASE: __, π :3]

= “A GEN case feature changes to ACC when a third person pronoun is syntactically local to REFL.”⁷

◇ (Evidence for this locality is based on what disturbs it)

■ To be clear: This must apply before Vocabulary Insertion⁸

◇ Vocabulary Insertion (the “spell-out” process for pairing structures with idiosyncratic phonological forms) is sensitive to formal feature specification.

◇ The GEN→ACC rule alters this feature specification, thereby affecting the choice of Vocabulary Item (phonological form).

■ The crucial component of our proposed rule is the environment for its application – namely **uninterrupted (syntactic) locality between the pronoun and REFL**.

SUMMARIZING THE CASE PUZZLE

- ◆ Reflexive self-phrases contain an abstract REFL⁰
- ◆ There is an operation like (21)
 - This gets us the following facts:
 - GEN→ACC does not take place in non-reflexives (*his self was...*)
 - GEN→ACC does not take place in non-3rd person (*yourself*)

◆ Questions that are still open (for the moment):

- What is the precise timing of the application of this morphological rule?
- Why/how do modifiers disrupt the adjacency of REFL and the pronoun (thereby blocking the application of the morphological rule)?
- *Let’s turn now to our second puzzle to help answer these questions, which we return to in §3.3.*

FORMALLY IMPLEMENTING THE GEN→ACC RULE

- ◆ “GEN → ACC” in rule (21) 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.

⁷There 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.

⁸In fact, this alternation could be driven by some process(es) in the syntax. What is crucial is that it does not take place after vocabulary insertion. That said, the many syntactic analyses we tried could not be used to capture the entirety of the data we analyze here.

3.2 Adjectives and Reflexive Distribution: The MODIFIER PUZZLE

- ◆ Recall from before: some self-phrases distribute as reflexives, while others do not; cf. (22)

- (22) a. ✓ You better behave {yourself/your annoying self/your damn self}.
 b. * You better behave {you/your tired self/your young self}.

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 reflexivity

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

- (23) 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*

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

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

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

- *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).⁹
- ◇ They don't require antecedents with perspective/attitudes; cf. inanimates:¹⁰

- (26) The pills themselves don't do anything – they're placebos.

- These diagnostics reveal that **only some** modified self-phrases can be reflexive

- ◆ **Four types of modifiers and how they fare:**¹¹

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

- (27) 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, my damn/goddamn/fucking self is as elusive as ever. (✓matrix sbj)

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

⁹The constraints on emphatic reflexives are distinct from those imposed on logophors / exempt anaphors.

¹⁰Note that GEN→ACC still happens with inanimates (and it can still be blocked with modifiers):

(i) a. Don't just keep multiplying each number by **its** own damn self; multiply it by different numbers!
 b. The pills **their** chemically-inert selves don't do anything – they're placebos.

¹¹We only consider pre-nominal modifiers; it seems no post-nominal modifiers can occur in self-phrases. This matter seems important, and may be an indication of the structures that are (im)possible inside of reflexive self-phrases.

B. Intensifier “Own”

- (28) a. Don’t worry about the other children, just behave your own self. (✓inherent refl)
 b. Can you believe she lost? She her own self can’t. (✓emphatic refl)
 c. While others at the retreat discover their selves, my own self remains elusive. (✓matrix sbj)

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

C. I(individual)-level adjectives

- (29) 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

- (30) 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)

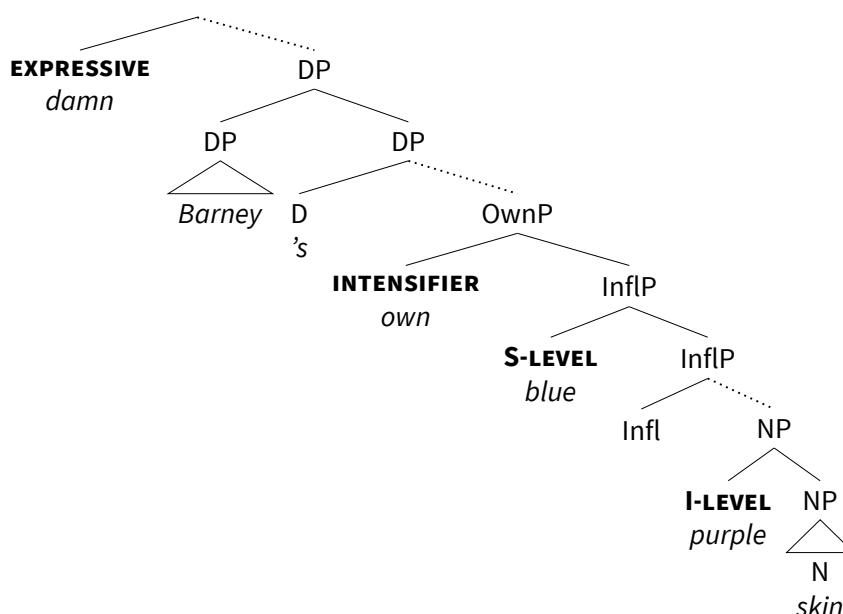
⇒ **Observation:** S-level modifiers are allowed only in self-phrases that are not reflexive.

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

3.2.2 The Fully Specified MODIFIER PUZZLE

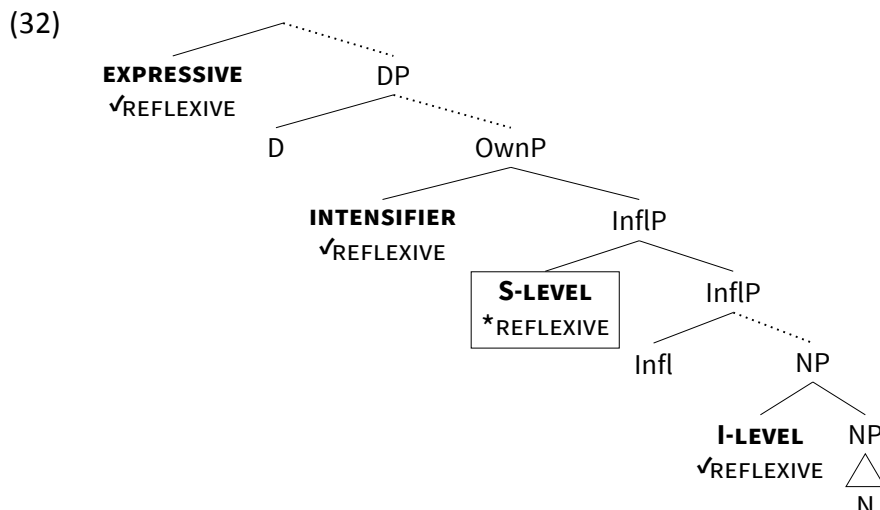
♦ Consider the nominal structure below with different structural positions for different modifiers¹²

(31) *Barney’s own damn blue purple skin*



¹²Nothing hinges on these precise syntactic positions for modifiers; only relative height w.r.t. functional heads matters.

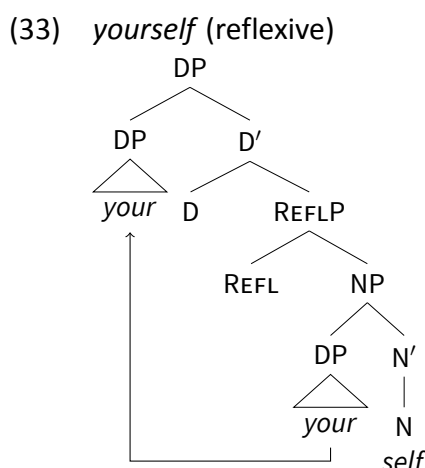
- ▶ Despite (the non-infix) *damn* merging so high, it is **always linearized between *own*** and the S-level modifier (when they are both present)¹³
- ▶ (Abbreviated motivations and references to the literature can be found in Appendix A)
- ◆ Let's annotate the modifiers in (31) with which are compatible with reflexive self-phrases
 - ▶ (✓REFLEXIVE = allows a reflexive interpretation; *REFLEXIVE = disallows a reflexive interpretation)



- ▶ **Q: Why is it the highest two types (expressive/*own*) and the lowest (individual-level) type permit a self-phrase to be reflexive, while intermediate (stage-level) modifiers do not?**

3.2.3 The Structure of English Reflexive Anaphors

- ◆ Following our discussion in §3.1, a reflexive self-phrase like *yourself* contains:
 - ▶ (i) a REFL⁰, (ii) an inalienable possessor pronoun, which raises to Spec,DP, (iii) a √SELF



- ▶ **Reminder: It can't be that a reflexive self-phrase must be small / simplex.**
- ▶ **NOTE:** *yourself* is derivationally related to *you* only in that the former contains the latter (alongside a nominal, *self/selv*)
 - It is not that *you* undergoes a transformation to *yourself* in reflexive contexts (as concluded by Postal 1966)

¹³We model this as some kind of lowering/reordering (Potts 2007) that takes place when syntactic labels are still accessible. We return to this momentarily.

◇ *you* → *yourself* / reflexive

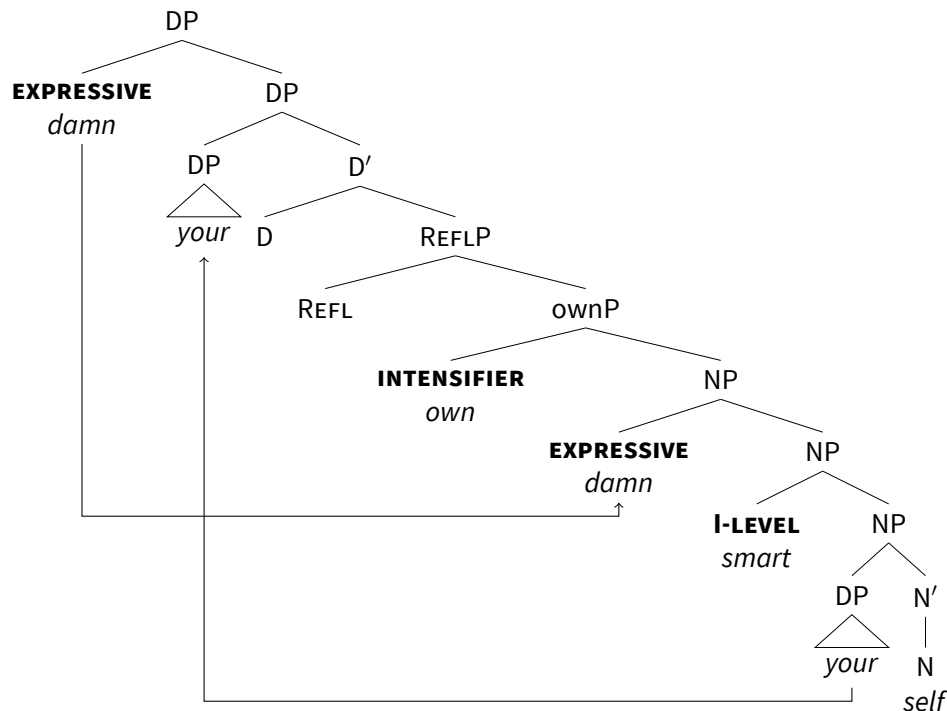
- Nor does it differ from *you* solely in that *yourself* spells out a feature bundle that is comprised of [+reflexive] plus the set that otherwise spells out *you* (contra the view adopted by, e.g., Kratzer 2009)

◇ *yourself* ⇔ [π :2, #:sg, +reflexive]

◆ Prediction: there's space for different types of phrasal modifiers

- ▶ When a reflexive self-phrase contains an expressive modifier, an intensifier, and an I-level modifier, we have a structure like:

(34) *your own damn smart self* (reflexive)



- Expressives compose with the whole DP (Pfaff 2015), and so must ultimately “lower” to derive the surface word order¹⁴ (Potts 2007)

◆ **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. (30))?

- ▶ **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 > Infl > N (cf. (32))

- ▶ **Question:** Why should InflP 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 the D⁰ that triggers movement of the possessor to Spec,DP is a necessary component of reflexive self-phrases

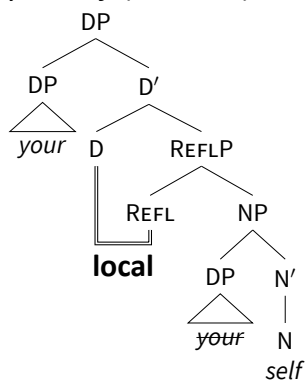
- Déchaine and Wiltschko (2017), surveying varieties of reflexives crosslinguistically, conclude that D is crucial for reflexivity in English

◇ (Though we differ from them in having a unique REFL⁰ on the nominal spine.)

¹⁴See Appendix D for more discussion of this timing.

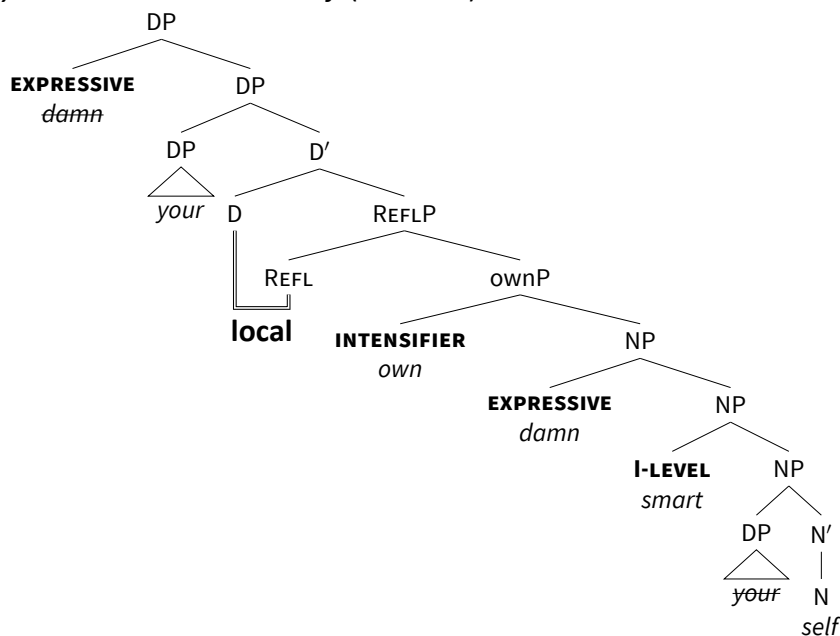
- ◆ Our proposed locality requirement is trivially satisfied in self-phrases without modifiers:

(33') *yourself* (reflexive)



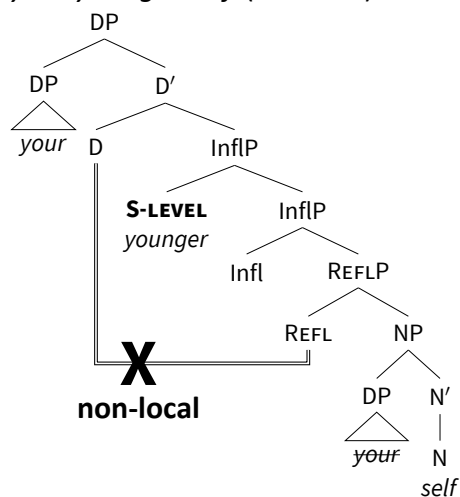
- ◆ This locality requirement is also satisfied in self-phrases with I-level, intensifier, and expressive modifiers, which all occur below REFLP:

(34') *your own damn smart self* (reflexive)

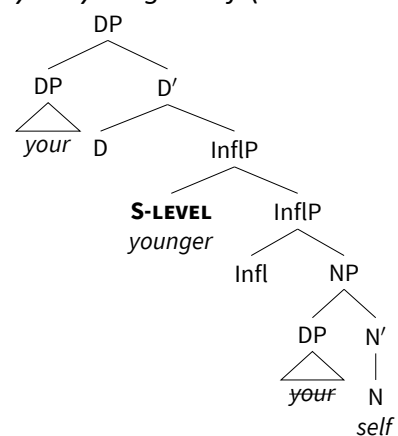


- S-level modifiers require (occur in) a projection in the nominal middlefield, InflP:

(35) **your younger self* (reflexive)



(36) ✓ *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.

- ▷ (i.e. a middlefield functional head blocking the relationship between something in the subject-region of the clause with something in the predicate-region of the clause¹⁵)
- 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 and *own* 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, precluding REFLP (precluding reflexivity)
 - ▶ *(For some specific hypotheses implementing this analysis, see Appendix §F)*
- ◆ **NOTE:** a self-phrase's reflexivity is **not** the property of any individual head alone (e.g., D, REFL, or $\sqrt{\text{SELF}}$)
 - ▶ If it were, it is not clear how InflP would block reflexivity

ANALYZING THE MODIFIER PUZZLE

- ◆ **Reflexive interpretation/distribution for self-phrases in English arises from REFLP in nominal structure**
 - ▶ Reflexive interpretation/distribution requires locality between REFL & D
- ◆ **Self-phrases with a S-level modifier obligatorily lack REFL**
 - ▶ The host of S-level modifiers, InflP, blocks D-REFL locality

3.3 Returning to the CASE PUZZLE

- ◆ Recall the morphological rule that we posited in §3.1, repeated here:

(21) GEN \rightarrow ACC / REFL [[CASE: __, π :3]
- ◆ This rule 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 and REFL^o
 - Some examples in (37), from Twitter:

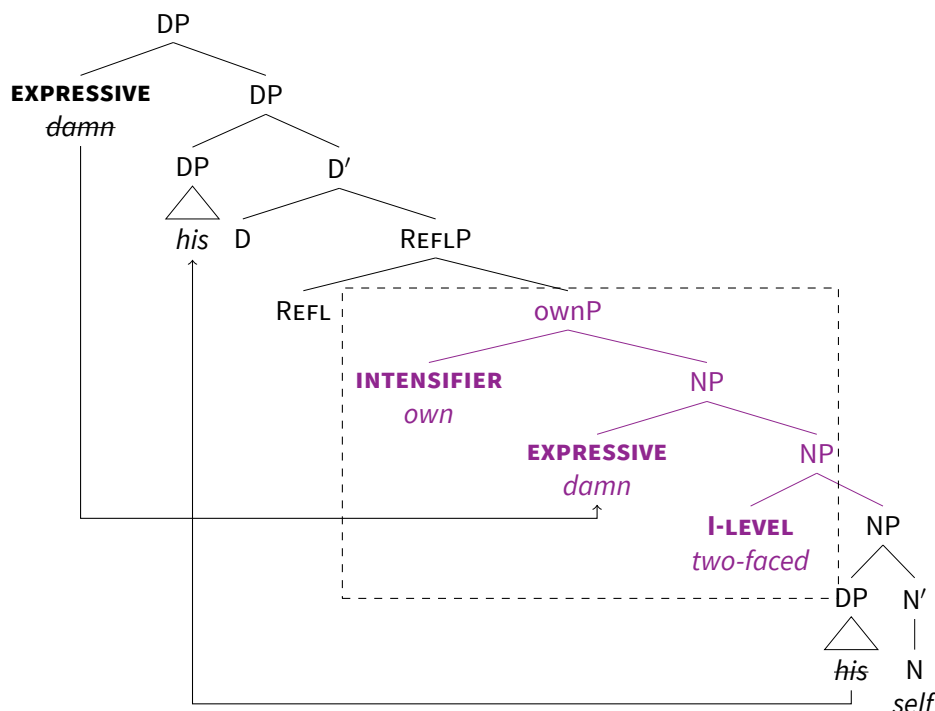
(37) a. Next time, he'll behave **his two-faced self**. (🐦/itsSinmi_/status/591421294673006595)

b. He really better behave **his damn self**... (🐦/the1kimjintae/status/653690311936356352)

c. You can save no one from **his own self**. (🐦/msekla/status/657856163116007424)
 - These examples above employ the modifiers in the box below:

¹⁵And 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.

(38) *his own 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 between *own* and S-level modifiers
 - ▷ This “lowering” operation is necessary for linear order (cf. Potts 2007)
 - ◇ “Lowering” 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 syntax¹⁶

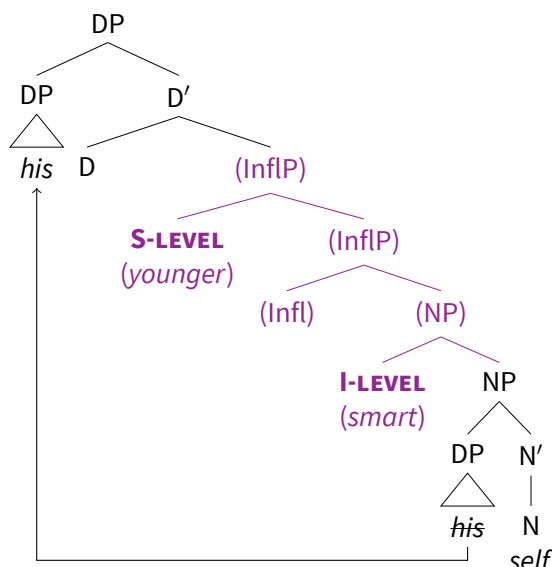
② The expression is not a reflexive one, i.e., when there is no REFL:

- Again, examples from Twitter (39), and the syntax that goes with it in (40):

- (39) 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)

¹⁶More on timing in Appendix §D.

(40) *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 (41)...
- b) ...or REFL is in the derivation, and the only modifiers present are infixed, as in (42).

(41) a. Anthony behaved himself.

b. Anthony and Rebecca built the IKEA furniture themselves.

(42) a. it's not a bloody selfie coz he didn't take it **him-bloody-self** (🐦/joe_1183/status/716011036969721856)

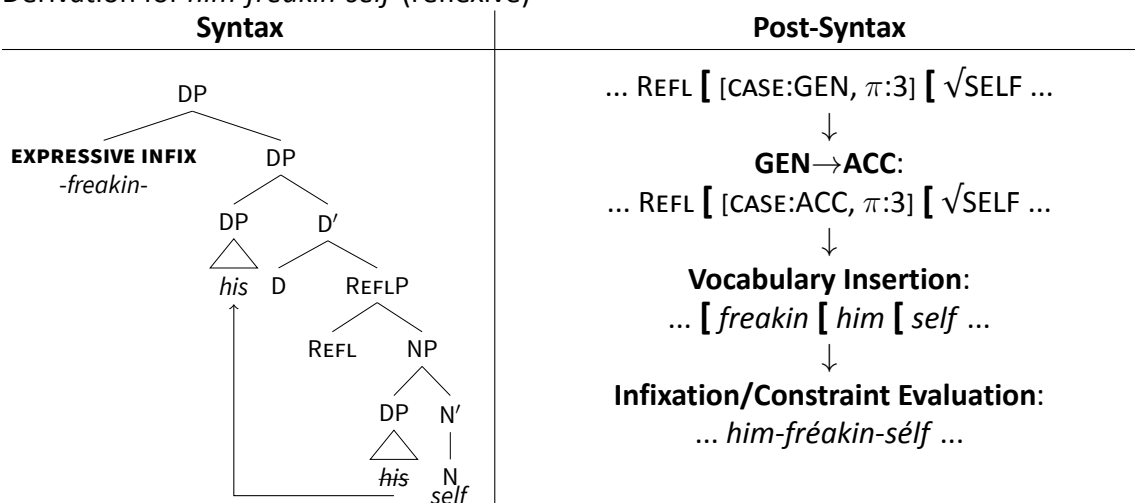
b. remember you're stronger than god **him fuckin self** (🐦/casey_shrout/status/910674199722840065)

c. @ScottCawthorn_ everyone knows u are fake because SCOTT **HIM FREAKIN SELF** SAID HE HAS NO TWITTER (🐦/therealone515/status/550188426688217088)

- For cases like (42), a phonological-infixation route (so-called “expletive infixation”) is available for expressives like *freakin/bloody*

◆ Let's look closely at the derivation for English *him-freakin-self*:

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



► In the syntax...¹⁷

- When an expressive infix is merged, it is above D
- As an infix, it never moves in the syntax
- It gets reordered in the post-syntax (in PF), according to phonological primitives

► In the post-syntax...¹⁸

- GEN→ACC applies, before Vocabulary Insertion¹⁹ (the morphological rule feeds VI)

(21) GEN → ACC / REFL [[CASE: __, π:3]

- PF-infixation must apply after Vocabulary Insertion, because the infixation depends on lexical stress²⁰

(44) ALIGN(R, -freakin-, L, stressed foot)

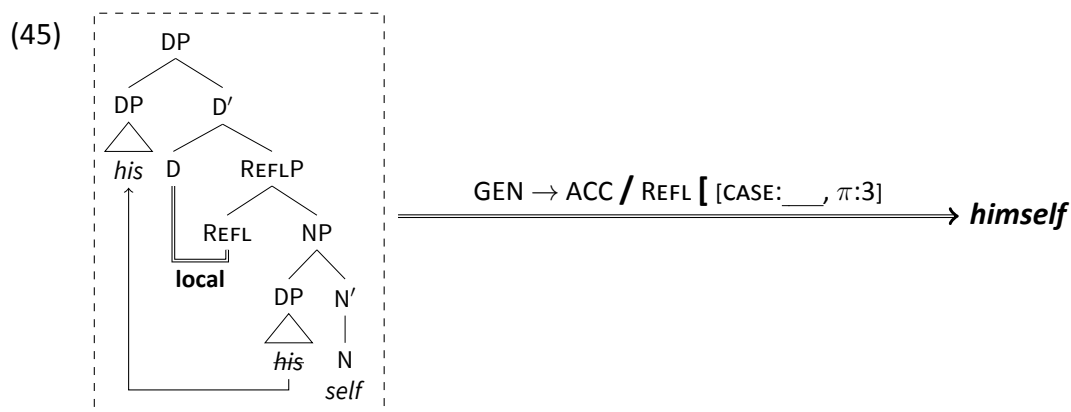
(cf. Yu 2003)

- This has all the hallmarks of PF-reordering: moving of a phonological string, to a position defined by phonological terms (stress, feet, linear order, etc.)

3.4 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
- The syntactic structure we proposed is boxed in (45) below



- This syntactic structure is then interpreted by MS/PF to yield *himself*, (46), and by the conditions on binding to be a reflexive anaphor, (47).

¹⁷The tree in (43) uses English words in the nodes; but they are not yet inserted; feature bundles occur in these positions instead.

¹⁸More details on the timing can be found in the Appendix, §D.

¹⁹The lower copy is what is local to REFL, which is apparently sufficient for the application of (21); see Appendix §D.2.

²⁰Newell (2017) also notes that expletive infixation takes place very late; the host for the infix can have gone through Spell Out more than once (*ibid*:§2.4.2).

(46) **Analysis of the CASE PUZZLE (for 3rd person pronouns)***GEN if there is/are:**Because:*

S-level Modifiers

There is no REFL to trigger GEN→ACC

I-level Modifiers

NP adjuncts intervene between possessor & REFL

Intensifier *own**own*P intervenes between possessor and REFL

Lowered Expressives

Expressives lower before GEN→ACC & intervene

*ACC if there is/are:**Because:*

REFL + No Modifiers

REFL and the possessor are local

REFL + Infix Expressives

PF infixation applies after the GEN→ACC rule

(47) **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).

4 Extending the Analysis

- ♦ We've proposed solutions to our empirical puzzles:
 - ▶ The CASE PUZZLE: there is a morphological rule dependent on locality with REFL in syntactic structure
 - ▶ The MODIFIER PUZZLE: D and REFL must be local for reflexivity, and this locality is disturbed by InflP (host of S-level modifiers)
- ♦ We can now use the form of pronouns to diagnose the presence/absence of REFLP in various self-phrases

4.1 REFLP in English 'Exempt Anaphors'

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

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

 - ▶ No clausal reflexivity (i.e., no syntactic [reflexive] feature in the verbal projections) would be posited in cases like (48a) (involving so-called 'exempt' anaphors)
 - cf. Labelle 2008, Reuland 2011, Ahn 2015b
- ♦ But notice that the self-phrase does not manifest as *hissself*:

(49) *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 (49).

BROAD CONCLUSION

Even 'exempt anaphor' expressions contain a REFLP

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

4.2 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. *himself*), 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; cf. §C in the Appendix).
- ◆ 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 (33), 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 Interim Conclusions

① Reflexives in English must not be listed as static lexical items.

- ▶ Adnominal modifiers can productively occur inside reflexive self-phrases (syntax)

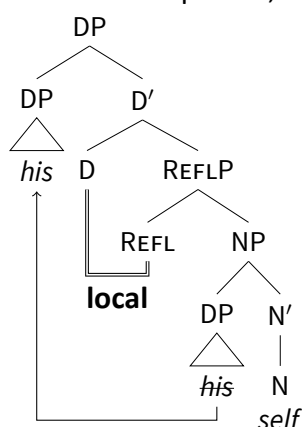
② In that vein, fully-formed reflexives (pronoun+*self*) must not be the input to syntax.

- ▶ REFLP and other syntactic elements (namely, modifiers) condition the surface case of the pronoun (morphology)
- ▶ Morphology does not happen before syntax

③ Reflexivity depends on DP-internal structure, and requires local syntactic relationships in English

- ▶ Reflexivity is not a property of any one morpheme in English
 - It emerges from a derivation

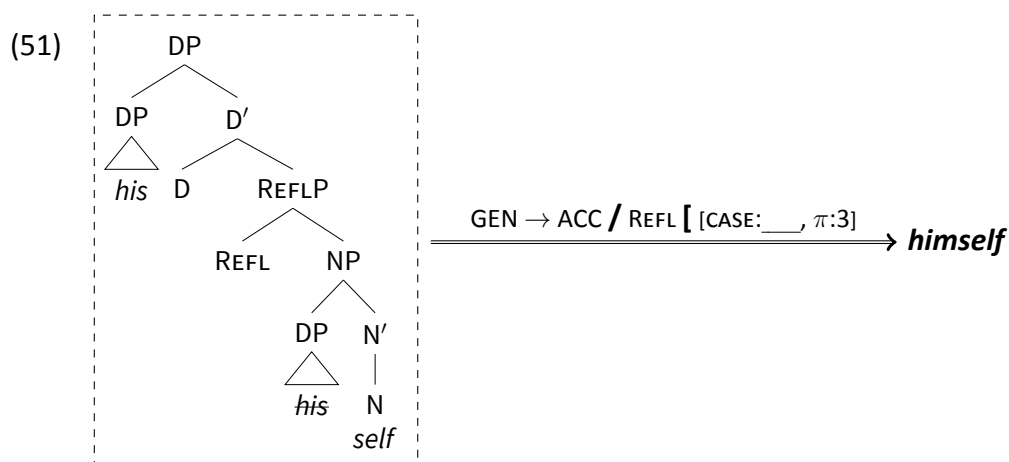
(50) reflexive self-phrase, 3rd person singular masculine



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

④ 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 REFLP (e.g., exempt anaphors, §4.1)

6 Features in the Self-Phrase

- ◆ In this structure of reflexive self-phrases that we have motivated, there is a pronominal possessor inside of the anaphor²¹
 - ▶ This is not isolated to English, in fact it is rather typologically common (cf. §4.2)
- ◆ So, there are two nominals for which nominal features (henceforth φ -features) can manifest²²
 - ▶ The pronoun (person, number, gender, animacy, genericity)
 - ▶ The $\sqrt{\text{SELF}}$ nominal (number)
- ◆ This raises some questions...
 - ▶ Question: how does the pronoun come to have the phi-features it has?
 - ▶ Question: how does the *self* nominal come to have the phi-features it has?

6.1 Matching φ -features

- ◆ There have been attempts to reduce binding to AGREE (or other syntactic operations that yield matching features)
 - ▶ e.g., Heinat 2006, Reuland 2006, Kratzer 2009, Rooryck and Vanden Wyngaerd 2011
- ◆ Theoretical Questions:
 - ▶ What is/are the mechanism(s) that yield feature matching?
 - ▶ Are the pronouns in reflexive self-phrases uniform, in how they get their φ -features?
- ◆ A particular implementation: Kratzer 2009
 - ▶ The features on the pronoun can originate as features on v^0/C^0
 - ▶ A pronoun can merge as a “minimal pronoun” and get its features from this head
 - (This head gets its features under a relationship with a separate nominal; e.g., the subject)
 - ▶ Under this analysis, the features on v^0 are said include [+reflexive], which then identify the pronoun as a reflexive anaphor, to help in the vocabulary insertion process²³
- ◆ For those who ask these questions (and even those who don't), there is a typical assumption about the empirical state of affairs:

(52) Premise: φ -features of an anaphor match their antecedents

 - ▶ “There seems to be more hope, however, for an approach to anaphor binding as φ -agreement, since anaphors and their antecedents do share the same values for [φ].” (Hicks 2009:107-108)
 - ▶ Kratzer, on the benefits of her analysis: “We no longer have to filter out nonagreeing reflexives. We don't build them to begin with.” (p.196)

²¹This raises interesting issues with a Reinhart and Reuland 1993 style typology of anaphors as $\pm R$ and $\pm \text{SELF}$. Under this analysis of English, English anaphors might be seen as $+R$ and $+\text{SELF}$, 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.*)

²²Note that we have already discussed the case features on the pronoun, which some may want to include alongside these other nominal features. We have not discussed the case features of the whole self-phrase, which I leave as an open question.

²³This is somewhat problematic, under the views I've argued for today. We've seen that the [reflexive] feature is located on a nominal REFL^0 (§3.2.3), and the nominal REFL is independent of syntactic representations of [reflexive] in a verbal projection (§4.1).

- The pronominal possessor and the antecedent of binding need not match in ϕ -features:²⁵

- (53) a. I wouldn't blame your self!
 [#:sg, π :1] [π :2]
- b. Everyone loves them selves
 [#:sg, π :3] [#:pl, π :3]
- c. Each of us is defending our selves
 [#:sg, π :3] [#:pl, π :1]
- d. Your majesty needs to protect your self
 [#:sg, π :3] [π :2]
- (Collins and Postal 2012)

- There can be mismatch between the $\sqrt{\text{SELF}}$ and the antecedent:

- (54) a. You guys pushed your self, drove your self, sacrificed, trained and competed
 [#:pl] [#:sg] [#:sg] (M. Romney 2002)
- b. The team credits them selves
 [#:sg, $\pi:3$] [#:pl, $\pi:3$] [#:pl]

- There can be mismatch between the $\sqrt{\text{SELF}}$ and the pronoun:

- (55) a. %Everyone loves them self
 [#:sg, $\pi:3$] [#:pl, $\pi:3$] [#:sg]
- b. %We each did it our self
 [#:pl, $\pi:1$] [#:pl, $\pi:1$] [#:sg]
- c. %We all need to ask our self [a very serious question]
 [#:pl, $\pi:1$] [#:pl, $\pi:1$] [#:sg] (ABC Nightline)

- At the same time, not just anything goes

- (56) a. *The book fell over by itselfs.
b. *He₁ behaved your₁self.

⇒ Whatever rules out these forms must **not** make any appeal to a mechanism that requires a matching of φ -features

6.2 Referential Construal

- *each of us* and *ourselves* are **interpretively identical** enough

²⁴The premise can be rescued if (i) we take a more fine-grained approach to the feature-matching syntactic operation, and (ii) the syntactic φ -features that value the features of the pronoun occur in places where they are not traditionally assumed to exist.

²⁵Data like (53c) 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.

- ▶ Similar to proxy readings: statues and a person are identical enough

(57) Ringo admired himself (=the statue of Ringo)

(58) **Interpretive Constraint on Pronominal Form**

The pronoun in a reflexive self-phrase must be able to be construed as (weakly) interpretive identical to its antecedent

- ▶ It is **not** identity between syntactic features that is necessary in English

- *each of us* can be construed as identical to *we*
- *him* is identical enough to *Ringo* in *Ringo admired himself*

- ▶ This is enough to rule out data like (56)

- *he* cannot be construed as identical to *you*

- ◆ What matters is how the pronoun/antecedent is construed – implicating the role of the interpretation of (not the formal features of) the antecedent

- ▶ Discussed by Collins and Postal (2012) in their investigation of imposters

(59) [*Spoken by a parent to a child*]

Mommy and Daddy need some time to ourselves/themselves.

- They note the generalization that the features of the anaphor can match the features of the “ultimate antecedent” (in the case of addressing ‘*your majesty*’, the ultimate antecedent can be construed as 2nd person or 3rd person masculine) – Collins and Postal 2012:Ch.14

- ▶ ‘*Each of us*’ can be construed as ‘the group including the speaker’, allowing felicitous binding of ‘*ourselves*’

(60) [*Spoken by a single woman in a group of women*]

Each of us is doing it ourselves/herself.

(61) [*Spoken by a single man in a group of men*]

Each of us is behaving ourselves/himself.

- ▶ ‘*They*’ can be construed as indefinite²⁶ individual of unknown/irrelevant gender, allowing felicitous binding by QPs²⁷

(62) [*Spoken about a group of female artists*]

Every artist ought to express themselves/themselves/herself.

(63) [*Spoken about a group of male novelists*]

Every novelist wrote their/his book synopsis by themselves/themselves/himself.

- There is interspeaker/cross-context variation on *themselves* vs. *themselves*

- ▶ Groups of individuals can be construed as a collection of individuals or a single inanimate entity

(64) The local football team always promotes itself/themselves on the radio.

- ◆ In addition, it’s not clear that ϕ -features of the relevant type are syntactically represented on the antecedent

- ▶ Common nouns in English (even ones that appear gendered, according to social norms) don’t

²⁶There are large groups of people (including me) for whom ‘*they*’ can also be used in contexts with definite individuals, where the speaker knows the referent to have male/female gender identity (and has possibly already committed to it in conversation), but does not invoke it (again). e.g., ‘*I know {the secret winner of the contest}₁ has told {his}₁ friends that {he}₁ won. [...] {Their}₁ opponents have not yet been informed.*’ (See also Conrod 2017.)

²⁷This also does not address non-binary gender uses of *they/them*. See Ackerman 2018 for discussion and references.

have gender φ -features (Ackerman 2018)

(65) a. #At the farmhouse, the cowgirl₁ left his₁ lasso in the kitchen.

b. At the Halloween party, the cowgirl₁ left his₁ lasso in the kitchen.

- “The feminine definition associated with cowgirl is thus defeasible, since gender agreement between cowgirl and his should be impossible if the property being checked is a φ -feature” (Ackerman: 4)

► Names might have gender features (Bjorkman 2017), but their gender features must be flexible enough to account for gender identity (“social gender”, Ackerman 2018)

- Thus expressions like ‘*Sue likes himself*’ are not ungrammatical; if deviant, it is infelicity (Conrod 2017, 2018)

◊ Sue \Rightarrow Individual of female gender \Rightarrow infelicitous as binding *himself*

◊ Sue \Rightarrow Individual of non-binary gender \Rightarrow infelicitous as binding *herself*

♦ Careful research is required to define exactly how this notion of weak identity is constrained/defined

- Indeed, this is a (purposefully) weak theory, which will generate a lot of expressions that will be deemed unacceptable
- Auxiliary constraints will be necessary to capture the range of (un)acceptable data
- Let’s turn now to the idea that there are some syntactic/semantic constraints on it

6.3 Conditionals and Weak Identity

♦ One reason to believe construal²⁸ as identical is what matters in English is data like (66):

(66) *Speaker A is going to the airport shortly, and asks Speaker B whether it’s a good idea to bring food or buy food on the plane. B replies...*

a. If I were you, I’d do myself a favor and bring food! [✓1 ant. > 1 anaph.]

b. If I were you, I’d do yourself a favor and bring food! [✓1 ant. > 2 anaph.]

► In this sort of shifted context²⁹, it looks like the syntactic antecedent is a 1st person pronoun, but the self-phrase can contain a 2nd person pronoun

- Because they are construed as identical in the context where ‘I’ = ‘you’

♦ As a first constraint, consider the fact that this kind of shifted context only allows for φ -mismatch with **irrealis mood**

(67) [*same context*]

a. When I was you (in a dream), I did myself a favor and brought food! [✓1 ant. > 1 anaph.]

b. *When I was you (in a dream), I did yourself a favor and brought food! [*1 ant. > 2 anaph.]

► Which φ -features a pronoun in a reflexive self-phrase can bear —i.e., the availability of φ -mismatch— **depends on modality**

²⁸I leave open what grammatical/non-grammatical variables/operations should be used in modeling “construal”.

²⁹In other investigations to anaphors in shifted contexts (e.g., Lakoff 1996, Kamholz 2012, Kauf 2017), what is explored is the interpretation of anaphors that φ -match their closest syntactic antecedent. For example, they have explored sentences like ‘*If I were you, I’d be looking at myself*’, and whether it is a looking-at-addressee action or looking-at-speaker action. As far as I know, these conditional contexts with φ -mismatch have not been given deep investigation up to this point.

- ◆ This pattern φ -mismatching is not limited to conditional contexts of ‘if I were you’
 - ▶ But it is also constrained in complex ways
 - ▶ The pronoun in the anaphor must be 2.SG, 2.PL,³⁰ or 3.PL
- (68) *[Speaker A looks on at Speakers B and C, who are about to move the fridge, just the two of them. A says...]*
- a. If I were you guys, I wouldn’t try to move the fridge by myself! [✓1 ant. > 1 anaph.]
 - b. If I were them, I wouldn’t try to move the fridge by yourselves! [✓1 ant. > 2.PL anaph.]
- (69) *[Speakers A and B look on at Speakers C and D, who are having a meeting to plan an event. They note that C and D have been working alone and that it is a lot of work. B says...]*
- a. If I were them, I wouldn’t try to plan the whole thing by myself! [✓1 ant. > 1 anaph.]
 - b. If I were them, I wouldn’t try to plan the whole thing by themselves! [✓1 ant. > 3.PL anaph.]
- (70) *[Speakers A and B look on at Speaker C, who is holding a second place trophy. They note that C looks unhappy. B says...]*
- a. If I were her, I’d be proud of myself! [✓1 ant. > 1 anaph.]
 - b. *If I were her, I’d be proud of herself! [*1 ant. > 3.SG anaph.]
- ▶ The antecedent must be 1.SG – any of the contexts above repeated with ‘we’ is unacceptable
- (71) *[Speakers A and B look on at Speakers C and D, who are having a meeting to plan an event. They note that C and D have been working alone and that it is a lot of work. B says...]*
- a. If we were them, we wouldn’t try to plan the whole thing by ourselves! [✓1.PL ant. > 1.PL anaph.]
 - b. *If we were them, we wouldn’t try to plan the whole thing by themselves! [*1.PL ant. > 3.PL anaph.]
- ◆ These data have been confirmed with a simple Amazon Mechanical Turk task (currently $n=78$)
 - ▶ Each sentence was accompanied by a comic strip to provide context
 - ▶ Median scores so far are given below³¹ (1=“unnatural”; 5=“natural”)

(72) 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 |

- ◆ Taking all this data on the conditional contexts together, we are left with the generalizations in (73)
- (73) **Complex Constraint(s) on φ -Mismatch in English Conditionals**
- If (i) the antecedent of binding is a 1.SG pronoun, (ii) the mood is irrealis, and (iii) the reflexive self-phrase does not contain a 3.SG pronoun, then the result is grammatical with a reflexive interpretation. If any of the conditions is not met, the sentence is ungrammatical.

³⁰It’s possible that 2.SG and 2.PL are the same; there is only *you*, which is possibly underspecified for number, or which is possibly specified for PL across the board (given verb agreement patterns).

³¹Further details about data analysis upon request! It is still in progress.

6.4 What φ -Mismatch Possibilities Mean

♦ Generalizations we've seen

(58) Interpretive Constraint on Pronominal Form

The pronoun in a reflexive self-phrase must be able to be construed as (weakly) interpretive identical to its antecedent

(73) Complex Constraint(s) on φ -Mismatch in English Conditionals

If (i) the antecedent of binding is a 1.SG pronoun, (ii) the mood is irrealis, and (iii) the reflexive self-phrase does not contain a 3.SG pronoun, then the result is grammatical with a reflexive interpretation. If any of the conditions is not met, the sentence is ungrammatical.

♦ 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

① Interpretation is involved

- Concepts like 'be construed as' in (58) are certainly interpretive
- Social gender (continuously defined) matters, in ways different ways than grammatical gender (categorically defined) – even assuming gender manifests in English syntax
- It's not clear how syntax could be used to unify/define the conditions in (73)
 - ◇ (*My hunch is semantics/pragmatics will have a better go at this*)

② 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
 - ◇ Additional suggestions of this come from number on the $\sqrt{\text{SELF}}$ nominal

③ 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

$\sqrt{\text{SELF}}$ NUMBER MISMATCHES

♦ Beyond mismatches on the pronoun that have interpretive constraints/effects...

- Number mismatch between the antecedent and the $\sqrt{\text{SELF}}$ can yield particular interpretations
 - (74) All of us lifted the table ourselves/%ourself.
- For those that allow both *selves* and *self* here, many people get a contrast in distributivity
- Namely that *ourself* likely gets a distributive interpretation, whereas *ourselves* likely gets a collective interpretation
- **Number on $\sqrt{\text{SELF}}$ can have interpretive effects**

7 Future Prospects

- ◆ 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:

| |
|--|
| <p>“Distributed Binding Theory”</p> |
|--|

- ◆ On the basis of this talk, we have seen that what has been described as core to binding in English-type languages is distributed in this way
 - ▶ 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
- ◆ This talk hasn't aimed to produce definitive analyses for all of these problems
 - ▶ Rather, the goal is to show that binding does not emerge from a single grammatical module
 - ▶ And working on binding is interface work

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A Modifier Heights: The Literature

- ◆ 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

(75) ‘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.*):

(76) “Barney, the dinosaur that has purple skin who is currently blue...”

- 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 intensifier *own* occurs outside S-level adjectives (like *earlier*), and closer to the N than the D⁰:³²
- (77) a. The bully’s own earlier experiences as a victim of bullying...
b. *The bully’s earlier own experiences as a victim of bullying...
- ▶ We posit the projection ownP outside of S-level modifiers

B 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)

³² *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 (77).

- ◇ As with *themselves*, 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 |
|--|
| <ul style="list-style-type: none"> ◆ Cross-dialectal variation can be easily understood under our analysis <ul style="list-style-type: none"> ▶ 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 "hissself"/"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

C History of English Pronoun+Self

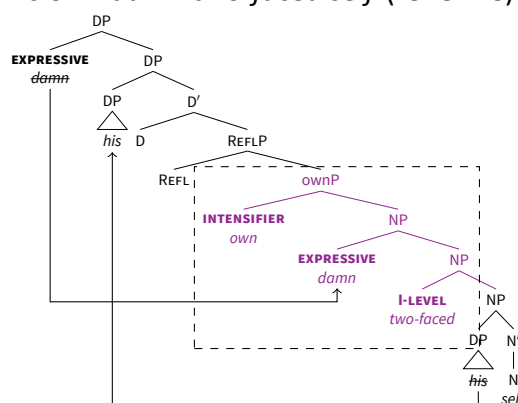
- ◆ Where did this pronoun+*self* as an expression of reflexivity originate?
 - ▶ Keenan (2002): pronoun+*self* forms occur as reflexive since c.1200
 - Keenan: this was a re-analyzed form consisting of a pronoun frozen in DAT case form (syncretic with ACC) and adnominal modifier *self* in a frozen NOM (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 §4.2)
- ▶ 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

D GEN→ACC and Timing

D.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
- (78) a. his own damn two-faced self
 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
- (38) *his own damn two-faced self* (reflexive)



- (78c) 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 (78f)
- ◆ 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
 - (79) 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: expressives must immediately precede a stressed foot
 - (44) 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 |
|--|
| <ul style="list-style-type: none"> ◆ Expressive modifiers like <i>fricken</i> or <i>goddamn</i> have two ways to get linearized between the pronoun and the <i>self</i> <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> ▶ syntax <i>before</i> GEN→ACC <i>before</i> VI <i>before</i> infixation |

D.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 sees 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*)

E 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
 - (80) 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
 - (81) 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 (82b)
 - (82) 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 (82a), then perhaps that same operator could also cause a Principle C violation in (82b)

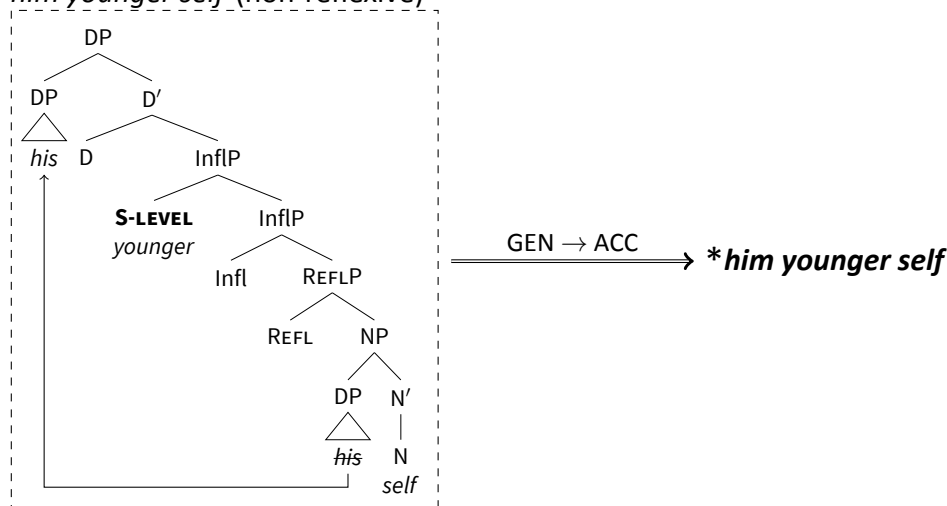
F Could REFLP occur in non-reflexive self-phrases?

- ◆ In §3.2.3, 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 allophony; the inter-

pretation 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.

(83) **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. (21).

G Other (Problematic) Analyses for the Case/Modifier Puzzles

G.1 *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 $\sqrt{\text{SELF}}$ s (see below about would not help us solve the MODIFIER PUZZLE and see §G.2 for independent problems with this proposal), or
 - ◇ (ii) that there is only one $\sqrt{\text{SELF}}$ but $\sqrt{\text{SELF}}$ is inalienably possessed only in reflexives (in order to prevent GEN→ACC from occurring in non-reflexive self-phrases).
 - Assuming there is only one $\sqrt{\text{SELF}}$ (and so option (ii) above is the more plausible alternative)...
 - ◇ The inalienable possessor of $\sqrt{\text{SELF}}$ 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 $\sqrt{\text{SELF}}$ (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 $\sqrt{\text{SELF}}$
- But, this still has a problem: The Poss head should be linearized in between the possessor and the $\sqrt{\text{SELF}}$ 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 $\sqrt{\text{SELF}}$ and D in the same way as InflP does.)
 - However, whenever we have REFL, there is also a $\sqrt{\text{SELF}}$ morpheme
 - Could be modeled as REFL selecting an NP headed by $\sqrt{\text{SELF}}$
 - Leading to the illusion that $\sqrt{\text{SELF}}$ (and not REFL) is relevant

G.2 Two *self* morphemes

- ◆ If $\sqrt{\text{SELF}}$ isn't the locus of reflexivity, but REFL selects $\sqrt{\text{SELF}}$...
 - It could it still be that, redundantly, there are 2 $\sqrt{\text{SELF}}$ morphemes — one reflexive one not
 - In the best way of interpreting this idea, we should want to define a process whereby an inalienably possessed noun can easily become the reflexive marker (while still also having a literal meaning)
 - Given the crosslinguistic commonality of this form
- ◆ While plausible, there is no obvious reason to favor a dualism between different types of $\sqrt{\text{SELF}}$
- ◆ In fact, there are reasons to not believe this
 - See §3.1.2 and Patel-Grosz 2013
- ◆ While *self* in reflexive contexts is typically prosodically weak, as in (84a), other *self* morphemes in reflexives are not, as in (85a)
 - (84) a. He fóund himself
 - b. He found his sélf.
 - (85) a. He found people like himsélf.
 - b. He found things like his sélf.
 - As established in §4.1, exempt anaphors like (85a) must contain a REFLP since the possessor has undergone GEN→ACC
 - Prosodic strength is indicative of the different structural heights of the self-phrases above (cf. Ahn 2015b:Ch.3)
 - Thus prosodic strength differences in (84) are not evidence of different $\sqrt{\text{SELF}}$ morphemes

H Nominal REFL and Clausal REFL

- ◆ We have clausal REFL (Reflexive Voice⁰) and nominal REFL (head of ReflP)
 - ▶ Open Question: Why are there two loci of reflexivity?
- ◆ The two are independent of one another
 - ▶ As demonstrated in §4.1, REFLP in self-phrases can occur without REFLP in the clause ('exempt anaphora')
 - While the clausal REFLP can be formulated as requiring a reflexive anaphor, the clausal REFLP has additional constraints on it
 - Namely, clausal REFLP requires the reflexive marker to occur in REFLP (resulting in a local subject antecedent)
- ◆ Thus we distinguish two types of reflexivity
 - ▶ Clausal REFLP merges only when the local subject is the antecedent
 - ▶ All other types of reflexivity (including 'exempt anaphora') make use only of the nominal REFLP
 - ▶ When nominal REFLP is absent, the self-phrase is non-reflexive

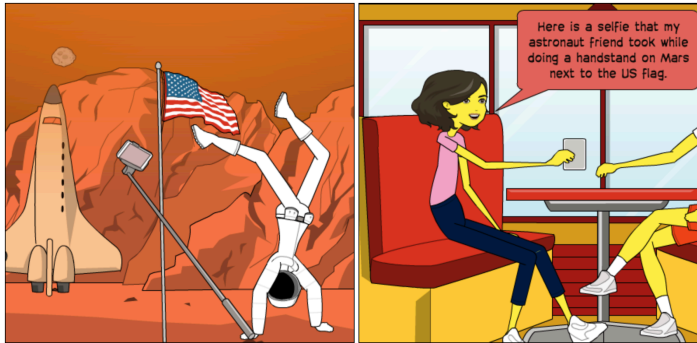
| | clausal REFLP | no clausal REFLP |
|-------------------------|-------------------------------------|------------------------------|
| nominal REFLP | local subject orientated reflexives | all other reflexive uses |
| no nominal REFLP | (ungrammatical) | non-reflexive interpretation |

- ◆ This seems **suspicious**
 - ▶ We have REFL in two syntactic positions, with similar interpretive effects
 - (Weak) Identity between the antecedent and the pronoun inside the self-phrase
 - ▶ Perhaps similarities/differences can be understood through the same REFL being merged in different places
 - ▶ Perhaps this could be used to gets us closer to understanding the forms/meanings that self-phrases can occur with
 - Exempt/non-exempt
 - ◇ Exempt and non-exempt anaphors always have the same form
 - ◇ 'Strong' forms: lots of base-generated nominal-internal structure (cf. Cardinaletti and Starke 1999)
 - Subject/non-subject bound
 - ◇ English subject-bound anaphors and other anaphors are surface identical
 - ◇ While allowing languages to do things very differently (perhaps none of this complex DP building; cf. clitic reflexives being VoiceP-type)
 - Emphatic reflexives
 - ◇ A large portion of languages have argument/emphatic reflexives that use the same form (König and Gast 2006, Ahn 2010)

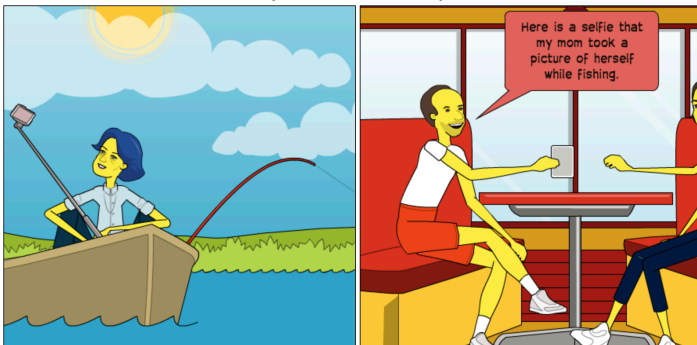
I Rating Task Details

◆ 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”



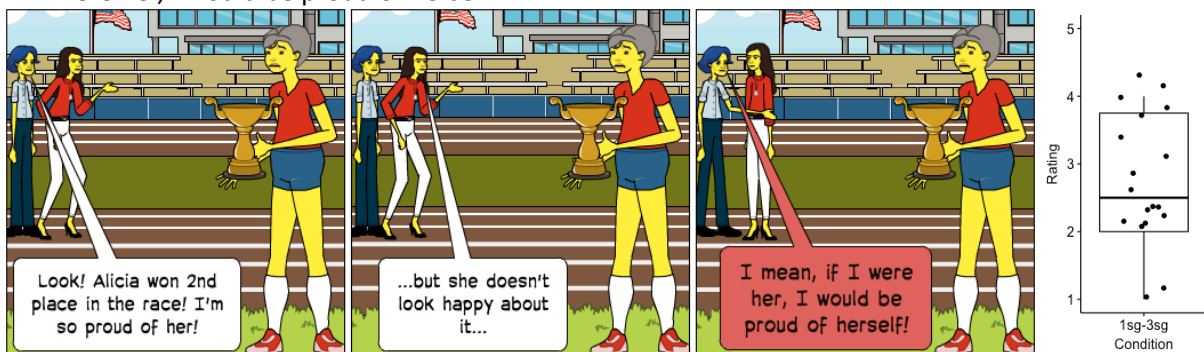
- “If I were you guys, I wouldn’t try to move the fridge by yourselves”



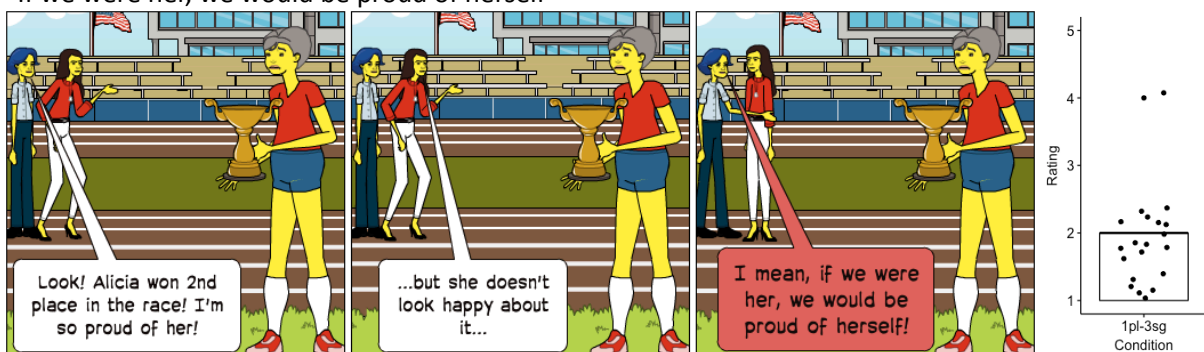
- “If we were you guys, we wouldn’t try to move the fridge by yourselves”



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



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



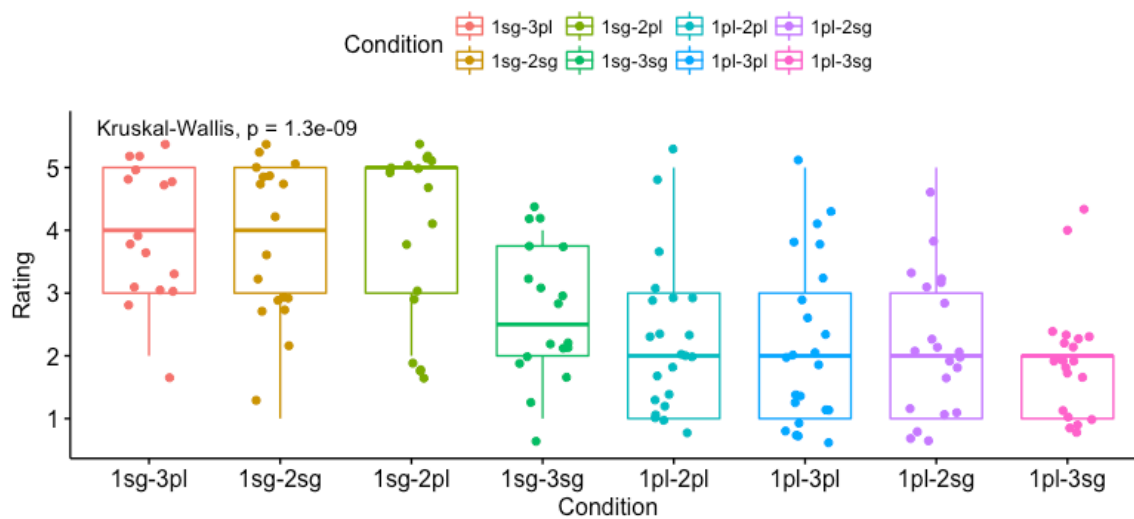
- “If I were you, I wouldn’t try to plan the whole thing by themselves!”



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



◆ Summary of results:



- ◆ Pairwise comparisons of ratings, using t-tests with pooled SD:

| | 1pl-2pl | 1pl-2sg | 1pl-3pl | 1pl-3sg | 1sg-2pl | 1sg-2sg | 1sg-3pl |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 1pl-2sg | 1.00000 | - | - | - | - | - | - |
| 1pl-3pl | 1.00000 | 1.00000 | - | - | - | - | - |
| 1pl-3sg | 1.00000 | 1.00000 | 1.00000 | - | - | - | - |
| 1sg-2pl | 0.00013 | 0.00011 | 6.8e-05 | 1.5e-06 | - | - | - |
| 1sg-2sg | 0.00028 | 0.00024 | 0.00014 | 3.9e-06 | 1.00000 | - | - |
| 1sg-3pl | 0.00010 | 8.6e-05 | 5.1e-05 | 1.2e-06 | 1.00000 | 1.00000 | - |
| 1sg-3sg | 1.00000 | 1.00000 | 1.00000 | 0.25981 | 0.01685 | 0.03391 | 0.01289 |