What's in a (English) Reflexive?*

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1 Introduction

- In this talk, we probe the inner structure of English reflexives by examining two seemingly unconnected puzzles, which we call the CASE PUZZLE and the MODIFIER PUZZLE.
 - ► The CASE PUZZLE: In standard dialects of English, the case of the pronoun in a reflexive differs across reflexives of different persons, (1):¹
 - (1) a. \(\forall \) ourself (\(\forall \) GEN) vs. \(\forall \) youself (\(\forall \) ACC) b. \(\forall \) hisself (\(\forall \) GEN) vs. \(\forall \) himself (\(\forall \) ACC)
 - Q1 Why is the pronominal component of a reflexive sometimes GEN and sometimes ACC?
 - ► The MODIFIER PUZZLE: Some expressions that contain a pronoun + *self* (henceforth "self-phrases") distribute as reflexives, (2a), while others (just like simple pronouns) do not, (2b).
 - (2) a. You better behave {yourself/your annoying self/your damn self}.
 - b. *You better behave {you/your tired self/your young self}.
 - Q2 Which sorts of self-phrases can be reflexive?
- Previews of the specific answers to Q1 and Q2:
 - A1 ACC case in reflexives is the result of a morphological rule that targets a third person pronoun when it stands in a local configuration with an abstract reflexivizing morpheme.
 - A2 Temporally-anchored (stage-level) modifiers interfere in an obligatory relationship between D and the reflexivizing morpheme, making a reflexive interpretation impossible.
 - ► These solutions collude to point to two general conclusions about reflexives.

GENERAL CONCLUSIONS ABOUT REFLEXIVES

- Reflexives are syntactically complex
- 2 Reflexivity emerges from the derivation, via an abstract reflexive morpheme
- More broadly, this research:
 - ▶ Uses morphological evidence to constrain/inform hypotheses about syntactic representations; and
 - ► Furnishes an argument for morphology necessarily following structure-building.

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1 There are varieties of English that allow e.g. "hisself" as the 3sg.M reflexive. There are also varieties of English that allow /miself/ as the 1sg reflexive. We will return to this important dialect variation in §4.4.

2 Pronominal Form in Reflexives: The CASE PUZZLE

2.1 Observations and Hypotheses

• It is well-known that English reflexives are not morphologically uniform w.r.t. pronominal case, (3).

- (3) a. 1st/2nd person: <u>myself</u>, <u>ourselves</u>, <u>yourself</u>, <u>yourselves</u> (= GEN + self/selves)
 - b. 3rd person: <u>himself, herself, itself, oneself, themselves</u>² (= ACC + self/selves)
 - ⇒ **Observation:** The pronominal component is GEN in non-3rd person, ACC in 3rd person.
- ► Three logically-possible explanations of this variation:
 - Hypothesis A: The pronoun inside a reflexive is underlyingly GEN, but appears exceptionally as ACC in 3rd person reflexives.
 - Preliminary support:
 - ▶ 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.
 - ♦ Preliminary support:
 - ▶ 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.
 - ♦ Preliminary support:
 - ▶ 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)
- However, not all these hypotheses are plausible in light of reflexive self-phrases that contain a modifier:
 - (4) a. 1st/2nd person: GEN (no change)
 - (i) myself \rightarrow my own/damn self
 - (ii) ourselves \rightarrow our own/damn selves
 - (iii) yourself \rightarrow your own/damn self
 - (iv) yourselves \rightarrow your own/damn selves
 - b. 3rd person: GEN (*ACC)
 - (i) himself \rightarrow his own/damn self (*him own/damn self)
 - (ii) themselves → their own/damn selves (*them own/damn selves)
 - \Rightarrow **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.

²We tentatively include herself and itself with the other 3rd persons; we leave them out of the case illustrations going forward.

- ▶ Still in the running:
 - **Hypothesis A** (GEN underlying, ACC exceptional; *henceforth "GEN→ACC"*)

2.2 Expanding the data set

- Could it just be that there is an **adjacency requirement** between the exceptional ACC pronoun and *self*?
 - ► Consider possessors of non-reflexive self-phrases:
 - (5) a. After spending two years in meditation, {\shis/*him} self was fully realized.
 - b. After spending two years in meditation, {\state their/*them} selves were fully realized.
 - \Rightarrow **Observation:** Simple adjacency with *self* does not guarantee ACC.
 - But is this even the same *self*? Maybe there's one reflexive √SELF and one non-reflexive √SELF.
 - Highly suspicious, given the crosslinguistic ubiquity of body-part (and other inalienably possessed) nouns in reflexives.
 - ▷ Such an analysis would have to hold that there are always two homophonous such morphemes, one reflexive and one not (e.g., reflexive √HEAD and non-reflexive √HEAD).
 - □ (We return to this discussion in §4.3, and to alternative analyses involving two √SELFs in the Appendix, §7.)
 - ♦ We will also see that the MODIFIER PUZZLE points away from two √SELFs.
 - ► Consider also what happens with *fucking* as a modifier:
 - (6) a. Batman {\shis/\shim} fucking self couldn't catch the Riddler.
 - b. Batman and Robin {\stacking selves couldn't catch the Riddler.
 - ⇒ **Observation:** Simple non-adjacency with *self* does not guarantee GEN.
- What this expanded set of data shows us:
 - (7) Third person pronouns in English reflexives go from underlying GEN case to ACC case in a local configuration with...
 - a. ...something reflexive (not self, cf. (5)), and...
 - b. ...at some point in the derivation (not necessarily reflected in the surface string, cf. (6)).

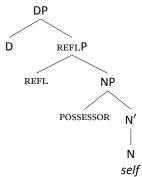
2.3 Our Basic Solution

- 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 √SELF, and it is inalienably possessed; inalienable possessors merge lower than other possessors, e.g., in the specifier of NP (Español-Echevarria 1997, Alexiadou 2003, *i.a.*).

Proposal

1. (7b): "at some point in the derivation" = in the post-syntax

- Support for GEN→ACC as a post-syntactic operation:
 - ♦ GEN→ACC is purely morphological (involves just a feature change).
 - ♦ GEN→ACC does not impact LF/interpretation (does not impact reflexivity).
- 2. (7a): "something reflexive" = an abstract reflexivizing head, REFL
 - (8) Refl as a functional head in the middlefield of the nominal



- Support for representing Refl in the syntax:
 - ♦ Refl must be represented @ LF, since it affects interpretation.
 - ♦ REFL must be represented @ MS, since it is the trigger for GEN→ACC.
- ▶ Formalization
 - A morphological rule is responsible for the GEN→ACC alternation:
 - (9) GEN \rightarrow ACC / Refl [[case: $, \pi$:3]
 - = "A GEN case feature changes to ACC when a third person pronoun is syntactically local to Refl."
 - ♦ 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).
 - ♦ The crucial component of our proposed rule is the environment for its application namely uninterrupted locality between the pronoun and Refl.
- "GEN \rightarrow ACC" in rule (9) 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 featurechanging 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.

³There 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.

PROPOSAL

- ◆ Reflexive self-phrases contain an abstract Refl
- ◆ There is a post-syntactic operation like (9)
 - ▶ This gets us the following facts:
 - GEN→ACC does not take place in non-reflexives (*bis self was...*)
 - GEN→ACC does not take place in non-3rd person (yourself)
- Questions that are still open (for the moment):
 - ▶ What is the timing of the application of the morphological rule?
 - ► Why/how do modifiers disrupt the adjacency of Refl and the pronoun (thereby blocking the application of the morphological rule)?
 - We turn now to our second puzzle to help answer these questions, which we return to in $\S 3.3$.

3 Adjectives and Reflexive Distribution: The MODIFIER PUZZLE

• Recall from the introduction: some self-phrases distribute as reflexives, while others do not; cf. (2).

3.1 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
 - Diagnostic 1: Object of an inherent reflexive verb (Levin 1993) \rightarrow Only a <u>reflexive</u> allowed
 - (10) a. He perjured {\shimself/*yourself/*him/*his daughter/*you}.
 - b. I sunned {\sqrt{myself/*himself/*me/*my daughter/*him}.
 - c. They behaved {\statemselves/*ourselves/*them/*their friends/*us}.
 - **Diagnostic 2:** Emphatic reflexive position \rightarrow *Only a reflexive allowed*
 - (11) a. We assembled the IKEA table {\fourselves/*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).
 - **Diagnostic 3:** Matrix subject position \rightarrow *Only a non-reflexive allowed*
 - (12) a. $\{\sqrt{I}/\text{*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 can't.
- Four types of modifiers and how they fare:
 - A. Expressives (e.g., expletives conveying not-at-issue content)
 - (13) 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"

- (14) 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(ndividual)-level adjectives

- (15) 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

- (16) 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.

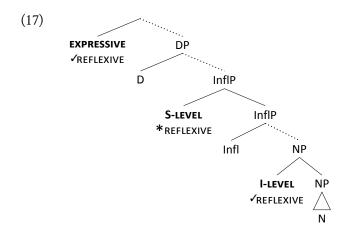
(✓matrix sbj)

 \Rightarrow **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.

Modifier height—setting up the puzzle fully:

- ▶ Expressives have been argued to merge high in nominal structure, outside D (Pfaff 2015).
- ▶ I- vs. S-level modifiers occur in different positions (Larson 1998, Larson and Takahashi 2007, i.a.):
 - 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.
- ▶ Putting together the relative heights (ignoring "own" for the moment), we get the structure in (17).⁴
 - (✓REFLEXIVE = allows a reflexive interpretation; *REFLEXIVE = disallows a reflexive interpretation)

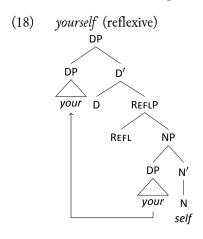


▶ Q: Why is it the highest (expressive) and lowest (individual-level) modifiers that permit a selfphrase to be reflexive, while intermediate (stage-level) modifiers do not?

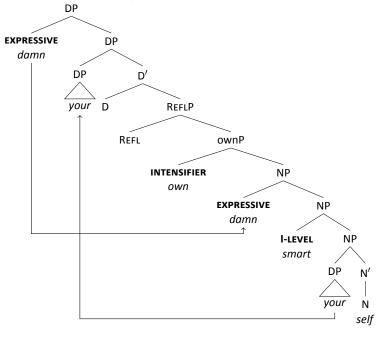
⁴Nothing hinges on these precise syntactic positions for modifiers; only relative height w.r.t. functional heads matters.

3.2 The Structure of Reflexive Anaphors

- ◆ The solution to the MODIFIER PUZZLE depends on:
 - ▶ (i) Refl's structural position, and (ii) the relationship between Refl and reflexivity
- Following our discussion in §2, a reflexive self-phrase like yourself contains:
 - ▶ (i) a Reflo, (ii) an inalienable possessor pronoun, which raises to Spec,DP, (iii) a self



- As we discovered in §3.1, a reflexive self-phrase can contain much more than this:
 - expressive modifiers (e.g., damn), an intensifier own⁵, and I-level modifiers (e.g., smart)
 - (19) your own damn smart self (reflexive)



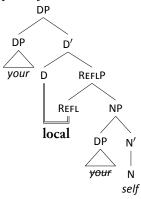
- Expressives compose with the whole DP (Pfaff 2015), and so must ultimately lower to derive the surface word order (Potts 2007).⁶
- ▶ Reminder: It can't be that a reflexive self-phrase must be small / simplex.

⁵own is different from other modifiers: it is always before all other modifiers, and 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.

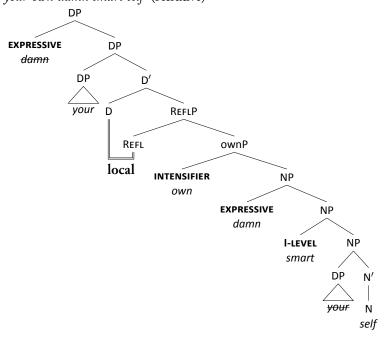
⁶See §8 in the Appendix for more discussion of this timing.

• The MODIFIER PUZZLE: What about S-level modifiers is different, such that they can<u>not</u> be in a self-phrase that gets a reflexive interpretation (cf. (16))?

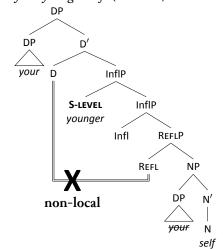
- ▶ **Hypothesis**: InflP (host of S-level modifiers) and its intermediate position is the problem.
 - InflP disturbs the relationship(s) necessary for a reflexive interpretation/distribution.
 - D > Infl > N (cf. (17))
- ▶ **Question:** Why should InflP disrupt the ability to be a reflexive self-phrase?
- ▶ Proposal: We posit that a local relationship must hold between D^0 and Refl⁰ in reflexive pronouns.
 - Why D⁰? Déchaine and Wiltschko (2017) conclude D is crucial for reflexivity in English.
 - ♦ (Though we differ from them in having a unique Refl⁰ on the nominal spine.)
 - Importantly, if reflexivity were the property of any individual head on its own (e.g., D, Refl., or $\sqrt{\text{SELF}}$), we could not make sense of the MODIFIER PUZZLE.
- Our proposed locality requirement is trivially satisfied in self-phrases without modifiers:
 - (18') yourself (reflexive)



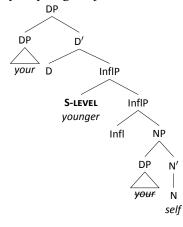
- This locality requirement is also satisfied in self-phrases with I-level, intensifier, and expressive modifiers, which all occur below Refle:
 - (19') your own damn smart self (reflexive)



- ▶ S-level modifiers require (occur in) a projection in the nominal middlefield, InflP:
 - (20) *your younger self (reflexive)



(21) ✓ your younger self (non-reflexive)



- Modifiers that require an XP between Refle 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 clause⁷)
- Modifiers that occur outside of this middlefield do not block a reflexive interpretation.
 - ♦ I-level modifiers are too low (Larson 1998) to interfere in this locality relation.
 - ♦ Expressive modifiers too high (Pfaff 2015) to interfere in this locality relation.
- Formal implementation of the incompatibility of InflP and REFLP
 - ► Core Idea: Refl must be licensed under a local relationship with D
 - Four hypotheses:
 - ♦ **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 relexives must lower to Refl.; Infl blocks this lowering
 - The crucial piece: An S-level adjective requires InflP, precluding ReflP (precluding reflexivity)

SUMMARIZING THE MODIFIER PUZZLE

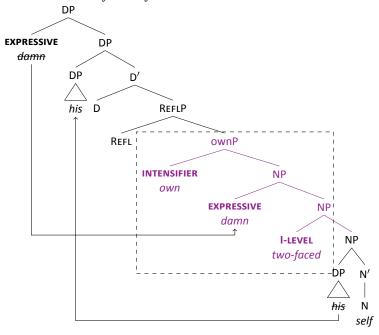
- ◆ Reflexive interpretation/distribution arises from RefleP in nominal structure
 - ▶ Reflexive interpretation/distribution requires locality between Refl & D
- Self-phrases with a S-level modifier obligatorily lack Refl.
 - ► The host of S-level modifiers, InflP, blocks D-Refl locality

3.3 Revisiting the CASE PUZZLE

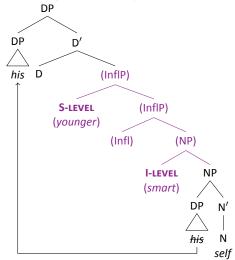
• Recall the morphological rule that we posited in §2, repeated here:

⁷And 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).

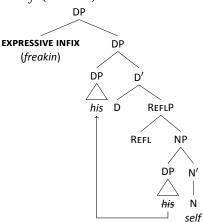
- (9) GEN \rightarrow ACC / Refl [[case: $, \pi$:3]
- This rule predicts that there are essentially **two reasons a third person possessor will be realized as GEN** (rather than undergoing the change in the rule and becoming ACC):
 - 1. Something intervenes between the possessor and Refl⁰, i.e., any of the modifiers in the box below:
 - (22) his own damn two-faced self (reflexive)



- (23) a. Next time, he'll behave his two-faced self.
 - b. He really better behave his damn self...
 - c. You can save no one from his own self.
- (//itsSinmi_/status/591421294673006595)
- (**Y**/the1kimjintae/status/653690311936356352)
 - (**y**/msekla/status/657856163116007424)
- Note: expressives like *damn* are being lowered into a position where they can intervene between Refl and the possessive pronoun.
 - ♦ This lowering operation is necessary for linear order (cf. Potts 2007).
 - ♦ However formalized, lowering must take place before GEN→ACC. (More in Appendix §8.)
- 2. The expression is not a reflexive one, i.e., when there is no Refl:
 - (24) his (younger) (smart) self (non-reflexive)



- 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)
- ◆ In contrast, GEN→ACC does apply if...
 - a) Refl is in the derivation, and there are no modifiers, as in (26)...
 - b) ...or Refl is in the derivation, and the only modifiers present are infixed, as in (27).
 - (26) a. Anthony behaved himself.
 - b. Anthony and Rebecca built the IKEA furniture themselves.
 - (27) 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 (\$\sqrt{therealone515/status/550188426688217088})
 - For cases like (27), a phonological-infixation route (so-called "expletive infixation") is available for expressives like *freakin/bloody*
 - ► **Syntax** for *him(-freakin-)self*:
 - (28) himself (reflexive)



- ▶ Post-Syntax for him(-freakin-)self:8
 - GEN→ACC applies, before Vocabulary Insertion (the morphological rule feeds VI)

(9) GEN
$$\rightarrow$$
 ACC / Refl [[CASE: $, \pi$:3]

- ♦ (n.b. the lower copy is what is local to REFL, which is apparently sufficient for the application of the morphological rule in (9); see Appendix §8.2.)
- ♦ Linear order, after GEN→ACC and VI: '(freakin) him self'
- PF-infixation applies after Vocabulary Insertion (the position of the expressive depends on lexical stress, and the infixation is only possible for expressives with a certain prosodic structure)⁹

♦ Linear order, after infixation: 'bim-freakin-self'

⁸More details on the timing can be found in the Appendix, §8.

⁹Newell (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).

Summarizing the case puzzle			
A 3π possessor is GEN if $\exists \downarrow$	Because ↓		
S-level modifiers	There is no Refl to trigger the GEN→ACC rule		
I-level modifiers	NP adjuncts intervene between the poss'r and Refl		
Intensifier own	ownP is present and intervenes between poss'r and Refl		
Lowered Expressives	expressives lower to NP (before GEN \rightarrow ACC) & intervene		
A 3π possessor is ACC if $\exists \downarrow$	Because ↓		
Refl + No Modifiers	Refl and poss'r are local		
REFL + PF-infixed Expressives	PF infixation applies after the GEN→ACC rule		

4 Predictions and Consequences

- 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 Refl in 'Exempt Anaphors'

- A reflexive self-phrase can occur even when the clause is not reflexive:
 - (30) Kenneth₁ said that Liz₂ invited both himself₁ and the boss to dinner.
 - ▶ No clausal reflexivity would be posited in cases like (30a) (involving so-called 'exempt' anaphors)
 - cf. Labelle 2008, Reuland 2011, Ahn 2015
- But notice that the self-phrase does not manifest as *bisself*:
 - (31) *Kenneth₁ said that Liz₂ invited both $\boxed{\text{hisself}_1}$ and the boss to dinner.
 - ► The GEN→ACC rule that yields *him* in 3rd person self-phrases relies on a Refl.P.
 - ▶ If there were no Refle inside the self-phrase in exempt anaphors, we would incorrectly predict *hisself* as acceptable contra (31).

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 Nominal ReflP and Clausal ReflP

- We are positing a reflexive head inside nominals; such a head has independently been posited for clauses (Labelle 2008, Ahn 2015¹⁰)
 - ▶ There are clear parallels between the nominal REFLP and the clausal REFLP
 - Both occur above the lexical root, and below the subject position
 - ▶ Open Question: Why are there two loci of reflexivity?
- Independently, it has been suggested that some kind of matching/Agree relation happens to license reflexive anaphors
 - ▶ Perhaps we could understand the multiple Refles if there is a licensing relationship (Agree/matching) between the two Refle heads
 - Q: Does anaphor licensing reduce to a relationship between REFLPs?
 - A: No
 - ♦ As just demonstrated in §4.1, ReflP in nominals can occur without ReflP in the clause
 - ▶ 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 RefleP 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

BROAD CONCLUSION

The REFLP in the nominal derivation is what makes a self-phrase reflexive

- ▶ *Independent* of what may make a clause reflexive
- ▶ *Independent* of the *self* morpheme
- Open question: How parallel are clausal and nominal REFLP?
 - ▶ Clausal Refle is used to bind local-subject oriented reflexives; could the nominal-internal Refle be exploited to bind anaphors like the ones in (32)?
 - (32) a. [DP Jenna's Refl⁰ pictures of herself] were strewn across her room.
 - b. Jenna likes [DP her Refl pictures of herself]
 - ▶ If so, could such an account be extended to cases like (33), so that so-called picture NP reflexives are bound within the nominal?

¹⁰ For our purposes here, we will discuss these analyses as though they have posited a Refl. None of them truly does so. Ahn and Labelle each argue for a Refl head of Voice. Reuland (2011) also argues that clausal reflexivity requires Refl to be manifested on the clausal spine (via movement of SELF from within an argument position to adjoin to the V that semantically introduces the external argument). The commonality is that in both there is a verbal projection with a reflexive-linked head, just in case the reflexive anaphor moves. (Ahn 2015 argues that analyses with Reflexive VPs and Reflexive VoicePs can be seen as notationally equivalent (*ibid*:Appendix B).)

- (33) a. [DP Many Refl⁰ pictures of herself] were strewn across Jenna's room.
 - b. Jenna likes [DP many Refl⁰ pictures of herself].

4.3 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. *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. §11 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 bodypart 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 (18), 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 Reflep'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 (D⁰, φ^0 , Class⁰, n⁰, N⁰)
 - Perhaps our Refl-based structure is in addition to D&W's typology (i.e., reflexive markers can be D^0 , ϕ^0 , Class⁰, n^0 , N^0 , or Refl⁰)
 - Or perhaps we could identify some of those same 5 types as differing in which head establishes a local relationship with Refl⁰

4.4 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: /ŏej/ is a GEN pronoun 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
 - $^{igstyle }$ The surface forms of pronominals vary independently of the GENightarrowACC rule
 - ► Other varieties allow /misɛlf/ (e.g., Northern UK varieties):
 - Could this ben GEN→ACC in 1.sg?
 - No: These varieties also have /mi/ as a 1.sg genitive 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

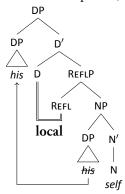
BROAD CONCLUSION

- 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

5 Conclusions

- 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.
 - ▶ Refle and other syntactic elements (namely, modifiers) condition the surface case of the pronoun (morphology)
 - ► Morphology 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

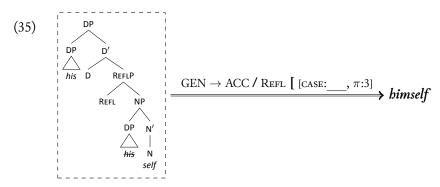
(34) reflexive self-phrase, 3rd person singular masculine



► 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 ReflP (e.g., exempt anaphors, §4.1)

• There's a lot left to investigate

- ► Multiple Appendices!
- ► Throughout the talk we've introduced multiples sets of alternative formalizations of our analysis, which need to be resolved
- ► How well does our analysis explain (nominal) expressions of reflexivity in other languages?

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APPENDIX

6 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
 - (36) 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
 - (37) a. \checkmark Every person_i at the wedding likes [his_i dancing partner].
 - b. \checkmark 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 (38b)
 - (38) 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 (38a), then perhaps that same operator could also cause a Principle C violation in (38b)

7 Other (Problematic) Analyses

7.1 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 √SELFs (see below about would not help us solve the MODIFIER PUZZLE and see §7.2 for independent problems with this proposal), 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.

b 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

7.2 Two self morphemes

- ◆ If √SELF isn't the locus of reflexivity, but Refl selects √SELF...
 - ▶ ...could it still be that there are two different √SELF morphemes: one reflexive one not?
 - Yes, though it would be redundant
 - ▶ 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 √SELF
- In fact, there are reasons to not believe this
 - ► First, all usages of self have the non-productive plural form selves
 - *selfs, in any context
 - ▶ Second, while *self* in reflexive contexts is typically prosodically weak, as in (39a), other *self* morphemes in reflexives are not, as in (40a)
 - (39) a. He found himself
 - b. He found his sélf.
 - (40) a. He found people like himsélf.
 - b. He found things like his sélf.
 - As established in §4.1, exempt anaphors like (40a) must contain a Refl since the possessor has undergone GEN→ACC
 - Prosodic strength is indicative of the different structural heights of the self-phrases above (cf. Ahn 2015:Ch.3)

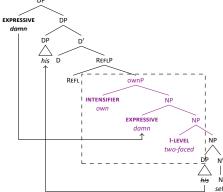
■ Thus prosodic strength differences in (39) are not evidence of different √SELF morphemes

8 GEN→ACC and Timing

8.1 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 lowering, *damn* originates in the nominal left periphery and always lands between *own* and I-level adjectives
 - (41) 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

(22) bis own damn two-faced self (reflexive)



- (41c) 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 (41f)
- 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
 - (42) 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

(29) 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

8.2 Copies

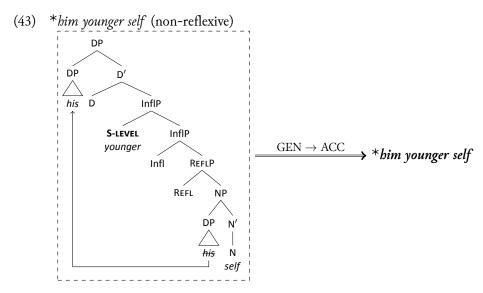
- Expressive-lowering feeds GEN→ACC
 - ▶ This should mean it is a phase-bound operation (due to the PIC)
 - ▶ Its phase-bound nature means DP is one phase
- ◆ In this way, the possessor pronoun will have made it to Spec,DP by the time GEN→ACC can apply
 - ▶ But we also need to have GEN→ACC see the pronoun 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 2015)

9 Could Refle occur in non-reflexive self-phrases?

- In §3.2, we identified 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 relexives must lower to Refl.; Infl blocks this lowering
- An alternative hypothesis that would 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 Reflex and D, yielding a non-reflexive interpretation.



- 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. (9).

10 Pronouns and -Self Don't AGREE with the Antecedent

- The pronominal possessor in reflexive self-phrases is indeed a pronoun, and not an agreement marker
 - ▶ There are cases where the pronoun inside a reflexive does not have the same syntactic features as its antecedent

(44) Everyone loves them selves [#:sg,
$$\pi$$
:3] [#:pl, π :3]

- It's also the case that the self morpheme does not agree with the antecedent in number
 - ▶ The existance of *ourself* and *themself* as forms in some dialects is reflective of this

(45) a. %Everyone loves them self [#:sg,
$$\pi$$
:3] [#:pl, π :3] [#:sg] b. %We each did it our self [#:pl, π :1] [#:sg] c. The team credits them selves [#:sg, π :3] [#:pl, π :3] [#:sg]

• This is in line with reflexive self-phrases having an independent nominal structure

- ▶ Some constraints must be at play to avoid unacceptable cases like (46)
 - (46) a. *I like myselves.
 - b. *He thanked yourself.

► Whatever rules out these forms ought not make any appeal to a mechanism that requires a matching of formal features

11 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 §4.3)
 - ▶ 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 Refl.P
 - ▶ By Early Modern English:
 - The GEN→ACC rule is an auxiliary addition to the reflexive structure
 - Independent of reflexive structure