

External Argument Focus and the Syntax of Reflexivity*

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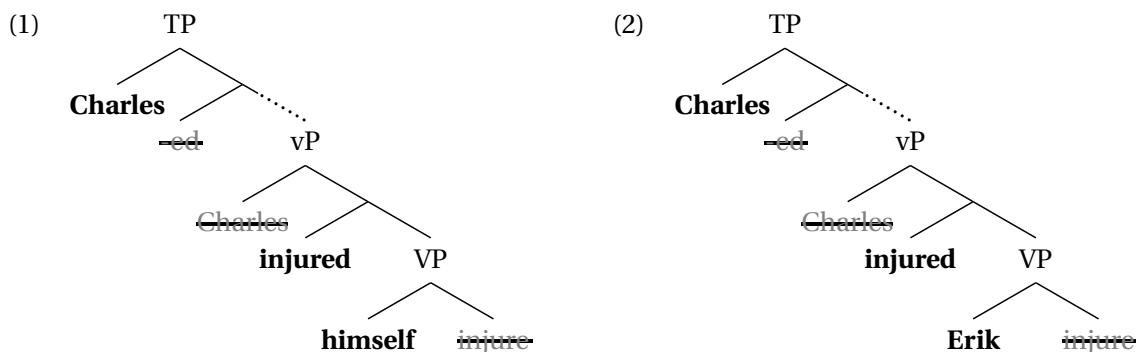
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Abstract

A sentence like *Johnny burned himself*, with the sole focus on the reflexive object, can be felicitously interpreted as a response to a subject-question like *Who burned Johnny?* – a phenomenon I call REAFR. This REAFR phenomenon is limited to a subclass of reflexive anaphors. Though commonly accepted theories of focus and reflexivity would not predict this to be possible, by amending the syntactic representation of reflexivity, REAFR and its particular behaviors are entirely predictable on the basis of normal rules of syntax-prosody mapping. This analysis gains independent support from the distribution of phrasal stress with regard to reflexive anaphors, as well as from the realization of reflexivity of other languages.

1. Introduction

Though existing analyses of reflexive clause are rather varied in their approaches, most assume that the structural position of a reflexive object like *himself* in (1) is the same as other objects, like *Erik* in (2) (cf. Chomsky 1981, 1986, Pollard & Sag 1992, Reinhart & Reuland 1993, Hornstein 2001, *inter alia*):



I argue that the analysis in (1) is an oversimplification, by exploring the distribution of contrastive focus accents. Specifically, in a certain focus phenomenon of English, a reflexive *object* can bear the focus

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prosody, despite intuitively expressing a *subject*-focus interpretation:¹

- (3) My sandwich didn't eat ITSELF. ≈ MY SANDWICH didn't eat my sandwich.

The phenomenon exhibited in (3) is what I term Realizing External Argument Focus on a Reflexive (henceforth REAFR).^{2,3} Beyond examples like (3), subject-WH questions systematically allow answers with REAFR. Consider the possible answers to (4Q), with REAFR exemplified in (4A4):

- (4) Q: Who injured Charles?
 A1: EMMA injured Charles.
 A2: CHARLES injured Charles.
 A3: #Charles injured CHARLES.
 A4: Charles injured HIMSELF. REAFR
 A5: #CHARLES injured himself.

While (3) indicates that REAFR can occur outside of question-answer contexts, contexts like (4) offer data that more clearly reflects the representational nature of reflexivity, so I will focus on them for the remainder of the paper. In investigating REAFR's distribution, it will become apparent that REAFR is constrained to a subset of reflexives: those that (i) are bound by the subject, (ii) can undergo movement, and (iii) are not in passive clauses. I provide a structural analysis for these facts, which gains support from the distribution of sentential stress accents, as well as from cross-linguistic reflexive syntax.

The paper proceeds as follows. The general problem that REAFR presents is more clearly articulated in section 2. Section 3 then steps through analyses that are inadequate to explain REAFR, bringing to light a fuller set of properties that define it. In section 4, I provide an analysis which derives all of these properties of REAFR, and which can derive a broader, seemingly-unrelated set of facts. Finally, I conclude with a summary of the findings and some remarks on extending this research in section 5.

2. The Problem of REAFR

A felicitous answer to a question must obey a principle like Question-Answer Congruence (QAC):

- (5) **Question-Answer Congruence**: An appropriate answer to a WH-question must be (semantically and prosodically) focused. (Halliday 1967, Rooth 1992, Selkirk 1996, Schwarzschild 1999, a.o.)

¹Throughout this paper, the bolded, underlined small-caps indicate contrastive focus (as opposed to presentational focus), typically realized as a L+H* pitch accent (Pierrehumbert and Hirschberg 1990).

²Special thanks to Natasha Abner for the help in naming this phenomenon.

³Given modern analyses of argument structure, it may be unclear what is meant by "external argument." I use this term to refer to the argument which becomes the subject in an active transitive clause – in other words, DPs which bear an Agent, Cause or Experiencer theta role.

QAC predicts that (6A1) is the felicitous answer to (6Q) when Ken is the entertainer. However, with the very same situation and question, (7A1) is an infelicitous response – seemingly unpredicted by QAC.

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|--|--|
| <p>(6) Q: Who entertained Ken?
 A1: <u>KEN</u> entertained Ken.
 A2: #Ken <u>ENTERTAINED</u> Ken.
 A3: #Ken entertained <u>KEN</u>.</p> | <p>(7) Q: Who entertained Ken?
 A1: #<u>KEN</u> entertained himself.
 A2: #Ken <u>ENTERTAINED</u> himself.
 A3: Ken entertained <u>HIMSELF</u>.</p> |
|--|--|

Note that (7A3), isolated in (8A), is also a felicitous answer to the *object*-question like (9Q). The subject- and object-question answer readings will be referred to as REAFR and object focus, respectively:⁴

- | | |
|--|---|
| <p>(8) <u>REAFR</u>
 Q: Who entertained Ken?
 A: Ken entertained <u>HIMSELF</u>.</p> | <p>(9) <u>Object Focus</u>
 Q: Who did Ken entertain?
 A: Ken entertained <u>HIMSELF</u>.</p> |
|--|---|

The ambiguity of the sort exhibited by the focused reflexives in (8)–(9) is not straightforwardly derivable though QAC, and given standard assumptions about the structure of reflexive clauses (e.g. (1)).

More specifically, assuming that answers to subject-questions like (8) semantically focus a different constituent than answers to object-questions like (9), how could they both map the prosodic focus onto the reflexive, given QAC?⁵ This problem is even more serious if we consider the QAC to be representative of a larger truth about linguistic derivations: namely that mismatches between prosodic, syntactic and semantic structures are non-existent. In fact, attempts to resolve REAFR which assume exceptional prosodic mapping would face serious problems, as I show in the next section.

3. Inadequate Accounts

I now explore several logically possible explanations for REAFR, which one could conceivably pursue. I find short-comings with each, in the process uncovering the core properties of REAFR.

3.1. Object Focus Account

One possible account of REAFR might appeal to the homophony with object focus constructions. In this way, the structures of (8) and (9) are identical, and the REAFR interpretation is the result of applying some post-syntactic operation –the exact nature of which I leave open to interpretation– to (9). This account would predict that, whenever the object-focus interpretation is unavailable, the REAFR interpretation

⁴On top of a response with REAFR, a subject question like (8) may also be answered with a dual focus prosody: **KEN** entertained HIMSELF. This dual focus is *not* the same as REAFR, as it has a broader distribution. See §3.3.

⁵In principle, one could argue that REAFR is in fact evidence against principles like QAC. Such a position would be faced with otherwise accounting for all the effects of QAC; I leave this line of argumentation open.

should also be out. This prediction is not borne out:

- | | | | |
|------|----|--|--------------|
| (10) | a. | Liz's sub didn't eat <u>ITSELF</u> – <u>SOMEONE ELSE</u> ate it. | REAFR |
| | b. | #Liz's sub didn't eat <u>ITSELF</u> – it ate <u>SOMETHING ELSE</u> . | Object Focus |

Given data like (10), an account in which REAFR directly relies on object focus is untenable.

3.2. Emphatic Reflexive Account

A perhaps more probable alternative analysis might relate REAFR to Emphatic Reflexives (ERs), which also involve focus (see, e.g., Eckardt 2001, Hole 2002, 2008, Ahn 2010):

- | | |
|------|---|
| (11) | Emphatic Reflexives |
| | a. Liz <u>HERSELF</u> sold the company. |
| | b. No one had done their homework <u>THEMSELVES</u> . |

Under this account, REAFR as in (12a) might result from a post-syntactic operation on the ER in (12b):

- | | | |
|------|----|----------------------------------|
| (12) | a. | Ken entertained <u>HIMSELF</u> . |
| | b. | Ken entertained himself himself. |

If this were the case REAFR should be constrained in the ways that ERs, which fall into two subclasses, are constrained. The first ER-type is a subject-oriented verbal-adjunct (^vPER) meaning something like “without help”, which is limited to cases where its antecedent bears an Agent theta role (Ahn 2010):

- | | | | |
|------|----|---|--|
| (13) | a. | No doctor can cure you ^v Phimself. | Agent antecedent; ^v PER |
| | b. | #No medicine can cure you ^v Pitself. | Cause antecedent; # ^v PER |
| | c. | #No student lives here ^v Phimself. | Experiencer antecedent; # ^v PER |

However, REAFR is compatible with any type of external argument – Agents, Causes and Experiencers:

- | | | | |
|------|----|---|-------------------------------|
| (14) | Q: | Who was talking to Emma? | |
| | A: | Emma was talking to <u>HERSELF</u> . | Agent antecedent; REAFR |
| (15) | Q: | What cools graphene transistors? | |
| | A: | Due to their inherent properties, they cool <u>THEMSELVES</u> . | Cause antecedent; REAFR |
| (16) | Q: | Who likes the loudest boy? | |
| | A: | The loudest boy likes <u>HIMSELF</u> . | Experiencer antecedent; REAFR |

Since REAFR is possible when ^vPERs are not, directly relating the two would be problematic.

Perhaps REAFR depends on the second kind of ER, a DP-adjunct (^dPER) meaning something like “X, not Y”. ^dPERs are limited to cases where their antecedent is a DP of type ⟨e⟩, ruling out quantified expression antecedents and non-specific indefinite antecedents (Ahn 2010).

- (17) a. Every mother washed Billy ^{dp}himself. (e) antecedent; ^{dp}ER
 b. #Every mother washed every baby boy ^{dp}himself. (et,t) antecedent; #^{dp}ER
 c. Nice girls would want to marry the president ^{dp}himself. (e) antecedent; ^{dp}ER
 d. #Nice girls would want to marry a schizophrenic ^{dp}himself. (e,t) antecedent; #^{dp}ER

However, REAFR is compatible with a DP antecedent of type (e,t) or (et,t):⁶

- (18) Q: Who washed every baby boy?
 A: Every baby boy washed HIMSELF. (et,t) antecedent; REAFR
 (19) Q: Who would want to marry a schizophrenic?
 A: A schizophrenic would want to marry HIMSELF. (e,t) antecedent; REAFR

Since REAFR is felicitous when ^{dp}ERs would not be, it distributes more broadly than either kind of Emphatic Reflexive. Thus, doubt is cast on any analysis that derivationally relates REAFR to ERs.⁷

3.3. Anaphor-Antecedent Relationship Account

Another possible account might propose that, since reflexive anaphors are inherently referentially dependant, focusing the reflexive can in turn focus its antecedent. Under this analysis, focusing any reflexive should be able focus any antecedent, regardless of structural or interpretational factors. This analysis fails in four ways, as I demonstrate with the data below. The first of these is that, if the antecedent of the reflexive is not an external argument, REAFR is impossible. Consider the following minimal pair:

- (20) Q: Who ____ introduced Angie to Ken?
 A: Ken introduced Angie to HIMSELF. Agent antecedent; REAFR
 (21) Q: Who did Angie introduce ____ to Ken?
 A: #Angie introduced Ken to HIMSELF. Theme antecedent; #REAFR

This implicates that a felicitous REAFR response requires the antecedent be the external argument.

Second, simply having an external argument antecedent isn't sufficient – external argument antecedents in passive clauses do not license REAFR prosody:⁸

- (22) Q: Who was Angie introduced to Ken by ____?
 A: #Angie was introduced by Ken to HIMSELF. Passive; #REAFR

⁶It can't be that a ^{dp}ER could not be adjoined to a silent pronoun in (18-19), as ^{dp}ERs are additionally highly degraded when attached to non-nominative pronouns (Lasnik and Sobin 2000):

(i) *?Charles gave {me ^{dp}myself/you ^{dp}yourself/him ^{dp}himself/himself ^{dp}himself} the reward.

⁷Additionally, REAFR reflexives must occur between the verb and its particle (*The coffee won't warm <ITSELF> up <#ITSELF>*), but ERs must occur outside of them (*John warmed it <*himself> up <himself>*).

⁸The anaphor is grammatical in (26A), so (22A) is not ungrammatical for binding reasons.

This indicates that the syntactic structure in which the reflexive appears, which is arguably the only differentiating factor between (22) and (20), affects the availability of REAFR beyond what an account based on the anaphor-antecedent relationship account could account for.⁹

Third, there are clauses meeting the previous two constraints which still disallow REAFR prosody. Namely, when the reflexive is in a syntactic island, as in (23), REAFR prosody is infelicitous.¹⁰

- (23) Q: Who entertained people like Ken?
 A: #Ken entertained people like HIMSELF. Reduced relative clause island; #REAFR

Given that islands are purely syntactic phenomena, any non-syntactic account cannot capture (22)–(23).

At this point it is relevant for us to revisit the definition of REAFR. In clauses with REAFR, like (20)–(23), the reflexive bears the sole focus in the clause. In all of these cases, there is a separate, felicitous prosody: one in which the DP antecedent *and* the reflexive both bear focus prosody – a “dual focus” utterance. Compare (20)–(23) with their minimal pairs in (24)–(27).

- (24) Q: Who ____ introduced Angie to Ken?
 A: KEN introduced Angie to HIMSELF. Agent antecedent; Dual Focus
- (25) Q: Who did Angie introduce ____ to Ken?
 A: Angie introduced KEN to HIMSELF. Theme antecedent; Dual Focus
- (26) Q: Who was Angie introduced to Ken by ____?
 A: Angie was introduced by KEN to HIMSELF. Passive; Dual Focus
- (27) Q: Who entertained people like Ken?
 A: KEN entertained people like HIMSELF. Reduced relative clause island; Dual Focus

The dual focus response is felicitous regardless of the antecedent’s thematic role, the voice of the clause, and syntactic islandhood. This indicates that the dual focus prosody is a separate phenomenon, and care must be taken so that there is *only one* focus accent in the clause, when testing the limits of REAFR.

Finally, the fourth fact that an anaphor-antecedent account cannot capture is that, when the reflexivity of a clause is already established in the discourse, REAFR is infelicitous.

- (28) Q: Which guy entertained himself?
 A1: #Ken entertained HIMSELF. Reflexivity as given; #REAFR
 A2: KEN entertained himself.

⁹This restriction on active clauses can be interpreted to as a restriction on surface subjecthood. Along with the “external argument” restriction, it would seem that REAFR is restricted to clauses where its antecedent is both the *surface and deep subject*. This correctly predicts that REAFR prosody is unavailable on experiencer reflexives in raising clauses. See Ahn (in progress).

¹⁰Coordinate structure and adjunct islands produce similar results, but were not included for reasons of space.

If focus on an anaphor can yield focus on its antecedent, there is no way to rule out (28A1).¹¹

3.4. Summary

The ways in which these alternative accounts have failed provide important information about the linguistic environments under which REAFR is licensed. Consider the summary of restrictions below:

(29) Restrictions on REAFR

- i. The antecedent must be an external argument of the clause.
- ii. The clause cannot be in the passive voice.
- iii. The reflexive in a REAFR clause cannot originate in an island.
- iv. The reflexivity of a REAFR clause cannot be given information.

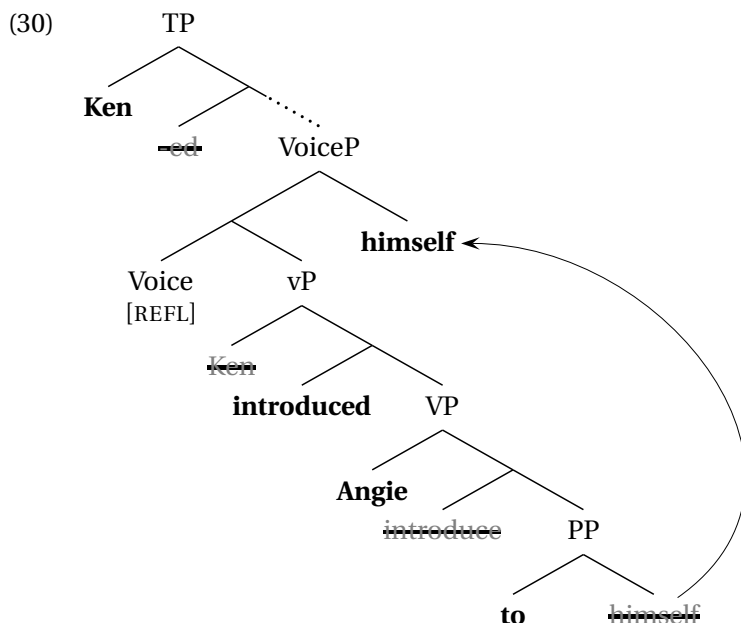
Of note, (29i–iii) are syntactic restrictions: the first two related to grammatical notions like subjecthood and clausal voice, and the third perhaps surprisingly implicating movement on the part of the reflexive. Any non-syntactic account is faced with the difficult task of explaining away these syntactic properties. Finally, since (29iv) relates to focus interpretation, the structural account to be proposed ought to be able to interface with the prosodic and semantic locus of focus.

4. Subject-Oriented Reflexives in English

To account for all the properties of REAFR, including its distributional constraints in (29) and its focus prosody, I propose a syntactic derivation like the one below, which derives (20).¹²

¹¹This data might, on its own, inspire an account that is purely pragmatic in nature. Specifically, it could be imagined that the WH phrase is, under normal circumstances, sufficiently domain-restricted, so that other participants in the event are ruled out as likely answers. Though correct in spirit, a solely pragmatic account can not straightforwardly capture the syntactic restrictions on REAFR exhibited in (21)–(23).

¹²Ultimately, this rightward movement encounters problems, which will not be addressed here for reasons of space (e.g. linearization with other post-verbal elements; for an example see fn. 7). Instead, this movement is likely to in fact be movement that spells out a lower copy of the chain (e.g. Bobaljik 2002). For further motivations for movement of this type in the narrow syntax, see Ahn 2012, *in progress*.



At the heart of this analysis is the movement of the reflexive anaphor to VoiceP – so it is crucial that “VoiceP” has an explicit definition. I take Voice⁰ to be an “argument structure” head which merges with a complete theta-domain,¹³ and which acts as a “pivot” around which the clause’s surface structure is determined. That is to say, its syntactic features determine, among other things, the word orders we find in different grammatical voices (cf. Sailor and Ahn 2010). This allows a single universal argument structure to underlie all grammatical voices –e.g. active, passive (Collins 2005), and middle (Ahn and Sailor *to appear*)– thereby maintaining compositional syntax in any voice, following UTAH (Baker 1988).

In addition to active, passive and middle Voice⁰s, I argue for the existence of a reflexive Voice⁰, REFL. Syntactically, REFL selects for a transitive vP complement, and has a *uEPP* feature that attracts reflexive anaphor to its specifier. Since the reflexive anaphor is base-generated in its argument structure position so that it can receive proper thematic interpretation, it must reach the specifier of VoiceP via movement, as shown in (30).¹⁴ Semantically, the REFL Voice⁰ is a function that creates the reflexive interpretation, with the external argument as being the antecedent. Due to consideration of space, I leave further details

¹³In this way, this usage of Voice is rather different from the Voice in Kratzer 1996, Alexiadou et al. 2006, or Ahn and Sailor *to appear* – in all of which VoiceP is employed to introduce the external argument.

¹⁴This movement is very similar to the reflexive-marking movement done in Reinhart and Reuland 1993, and can be thought of similarly, as licensing reflexivity (i.e. the REFL Voice⁰). However, one point of difference is that the movement motivated here takes place in the *narrow syntax*. A second is that Reinhart and Reuland rely on the notion of “reflexive-marking a predicate”, but it is not clear how this works under an analysis in which the external argument of a clause is not introduced by the lexical verb (Chomsky 1995, Kratzer 1996, von Stechow 1996, Alexiadou et al. 2006, among *many* others). If there is no predicate that introduces both the subject and the object, there can be no predicate that requires reflexive-marking to indicate that two of its arguments are coreferent.

aside here.¹⁵

4.1. Deriving REAFR Properties

This movement to the REFL VoiceP derives a host of properties for English reflexives, including those which we have seen regarding REAFR. Working backwards through the constraints on REAFR, let us consider the constraint in (29iv). When the reflexivity is given information, as in (28), REAFR prosody is infelicitous. This is due to the fact that REAFR is actually a manifestation of *reflexivity* being focused (cf. Spathas 2010). Since reflexivity is embodied in the REFL Voice⁰, we should want a representation like (31), where REFL is focus-marked:

- (31) [TP Ken [VoiceP REFL_{Foc} [vP introduce Angie to] himself]]

This being the structure, the next question is: why does the anaphor bear the focus accent? In order to answer that, we must address the question of what happens when silent elements are focus marked. Laka (1990) argues that in this sort of situation, focus prosody is borne by the silent head's specifier. As evidence, she provides polarity focus (a focus marked Σ) from Basque; focus is borne by the specifier of Σ P when Σ is silent, but by Σ when it's overt:

(32) Basque Polarity Focus

- | | |
|---|---|
| <p>a. <u>IRUNE</u> Ø_{Foc} da etorri
 <u>Irun</u> Σ_{Foc} has arrived
 'Irun <u>DID</u> arrive'</p> | <p>b. Irun <u>BA</u>_{Foc} da etorri
 Irun Σ_{Foc} has arrived
 'Irun did <u>SO</u> arrive'</p> |
|---|---|

Similarly, Ahn (2010) finds that, for Emphatic Reflexives, the silent head ID is what is actually focused:

- (33) a. No student did it [ID_{Foc} HIMSELF].
 b. Jack [ID_{Foc} HIMSELF] arrived.

With the silent REFL focused in (31), we now correctly predict that the reflexive in the specifier of VoiceP is what will bear focus prosody, and that REAFR is infelicitous when reflexivity is given.^{16,17}

¹⁵It is quite clear that the traditional “valency-reducing” function is insufficient. Specifically, if a simple valency-reducing function yields reflexivity, any two arguments could be co-identified. For example, in a ditransitive, the function could co-identify the two objects – leaving the subject-orientation effects found with REAFR (as well as phrasal stress, §4.2) unexplained.

¹⁶Focusing an argument generally allows you to focus the XP in which it appears, as in VP-focus being borne by the object (Selkirk 1996). However, only the Voice⁰, not the entire VoiceP, is focused in (31). Thus it is unlikely that this is a case like object focus yielding VP-focus.

¹⁷See Spathas 2010 for an alternative account, which relies on anaphors like *himself* being the reflexivizing function. However, such an account is unable to derive (29i–ii). Moreover, Spathas' treatment of reflexivity faces independent problems, including but not limited to the fact that ECM verbs with reflexive objects are not semantically reflexive (Reinhart and Reuland 1993).

Turning now to (29iii), this island restriction derives straightforwardly from the fact that REAFR requires the anaphor to be in Spec,VoiceP. If the anaphor is merged in an island, it cannot move to Spec,VoiceP to satisfy REFL's μ EPP feature.¹⁸ As a consequence, a derivation in which there is REFL Voice and an anaphor in an island will crash. Instead, such sentences must not involve REFL Voice,¹⁹. Conversely, since REAFR can only arise with the anaphor in Spec,VoiceP, anaphors in islands cannot bear REAFR prosody.

Since, as previously discussed, active, passive, middle and reflexive all instantiate the same head, no clause can be in both the reflexive and passive voice. This is for the simple reason that a single clause can never invoke two distinct Voice⁰s at the same time. Since REAFR depends on REFL, simple complementary distribution derives (29ii)'s restriction against REAFR in passive clauses.

Finally, though the precise logical form of REFL is outside of the scope of this paper, if it takes two arguments and coidentifies them, the first argument will be the anaphor that sits in its specifier, since the reflexive that moves to Spec,VoiceP will always be the first argument that the reflexive function encounters in the syntactic composition. The second of the two arguments will be the external argument subject, since that will always be the next argument that the REFL function composes with, due to the height of REFL Voice⁰. In this way, the subject-orientation of the reflexive in REAFR, (29i), is the result of simple mechanics.

Thus a REFL Voice⁰ that is the locus of reflexivity derives all properties in (29), as well as deriving why the reflexive bears focus prosody in REAFR clauses.

4.2. Extension: Phrasal Stress

It has been shown that, crosslinguistically, phrasal stress is assigned to the most deeply embedded element in the structure (Cinque 1993, *et seq.*). Following this, the syntax of REFL derives the fact that reflexives often “avoid” phrasal stress:²⁰

¹⁸Why movement to VoiceP must take place at all is less clear – one possibility is that there is a syntactic condition whereby all Voice⁰s need to be licensed by merging something in their specifier positions. Supporting evidence for this movement will be discussed in Section 4.2.

¹⁹For further evidence to this effect, see Ahn 2011, which shows that the distribution of strict interpretations in ellipsis is identical to that of active/passive voice mismatch.

²⁰This correctly predicts that reflexives' avoidance of stress is not the same as pronouns':

- (i) a. Remy accidentally burned Marie and *himself*.
- b. Remy accidentally burned *Marie* and me.

Thus whatever derives the stress-avoidance of pronouns must be different than what derives the stress-avoidance of reflexive anaphors.

- (34) Q: What happened at work?
 A1: Ken [_{VoiceP} \emptyset_{act} [_{VP} introduced Angie to **Liz**]].
 A2: Ken [_{VoiceP} \emptyset_{refl} [_{VP} introduced **Angie** to] himself].

Since *himself* moves to VoiceP, it is not the most embedded element, and avoids the phrasal stress.²¹ This correctly predicts that the avoidance of stress by reflexives is sensitive to the properties in (29i–iii).

- (35) Q: What happened after the accident?
 A1: Ken introduced Angie to **Tracy**.
 A2: Ken introduced **Angie** to himself. Subject Oriented, Not in Passive, Outside Island
 A3: Ken introduced Angie to **herself**. Non-Subject Oriented
 A4: Angie was introduced to **herself**. In Passive Clause
 A5: Ken introduced Angie to two people besides **himself**. In Adjunct Island

See Ahn (2012, *in progress*) for more discussion of these facts and the details of how syntactic movement feeds prosody in these cases.

5. Conclusion

In this paper, I have offered an account under which the REAFR phenomenon is not a violation of QAC or any other constraints on isomorphism between syntax, semantics and prosody. In this approach, a reflexive Voice⁰, REFL, is the semantic reflexivizer, and attracts a reflexive anaphor to its specifier. In cases of REAFR, REFL is semantically focused; but as a silent head, the focus prosody is borne by its specifier, the reflexive anaphor.

As a result of this Voice-mediated approach to binding, the seemingly exceptional qualities of REAFR, and all of the constraints on its occurrence, are the expected results of independently motivated structural mechanisms. Moreover, as briefly mentioned in §4.2, when reflexives do (or do not) bear phrasal stress falls out from this analysis. In other words, neither REAFR nor stress avoidance by (some) reflexives present any problem for the strong theory that there are maximally few mismatches between the syntactic, semantic and prosodic structure.

The syntactic constraints that this analysis of reflexivity predicts are remarkably similar independently described constraints in other languages, such as Romance *se/ si* (Sportiche 2010, *references therein*).

²¹This begs the question of why *to* does not bear an accent. It may follow from a principle that function words are invisible to stress calculation (e.g. Zubizarreta 1998). Alternatively, it may have to do with where *to* is merged – for example, Sportiche 2005 hints that weak prepositions like *to* are rather high in the structure.

(36)	REAFR-capable <i>himself</i>	Romance <i>se/si</i>
a. Can be Direct Object	✓	✓
b. Can be (Prepositional) Indirect Object ²²	✓	✓
c. Can be generated in an island	×	×
d. Can have a non-subject antecedent	×	×
e. Can occur in passives	×	×

This account is thus able to predict that reflexivity in English is fundamentally the same as it is in other languages, despite superficial differences.

Given that English *himself* can occur in contexts like (36c-e), it must be the case that there is a second binding operation, in addition to the REFL VoiceP. Though I leave open the question of the exact nature of this second binding operation, cross-linguistic data support a dual-binding approach, in that many languages use two different lexical items for the different binding operations: e.g. French *se/lui-même*, Finnish *-UtU/itsensä*, Swahili *ji-/mwenyewe*, etc. English reflexive anaphors are a heterogeneous class in the same way, distinguishable (at least) by prosodic behavior instead of by choice of lexical item. In other words, though English uses a single lexical form for all reflexive anaphors, it maintains the same grammatical distinctions between anaphors attested across languages.

The question that naturally arises from this is, which binding operation applies when? The generalization that follows from the data presented here is that the REFL Voice derivation should be employed as much as possible. Though this may seem to be an *ad hoc* stipulation, it is part of a larger pattern in syntax, whereby the more constrained derivation is utilized as much as possible.²³ This tendency also arises across languages in phenomena such as weak/strong pronoun alternation, possessor raising, and object shift. For further discussion, see Ahn *in progress*.

Finally, English reflexivity is sensitive to the subjecthood of its antecedent, just as reflexives are in a great number of languages (e.g. Czech, Toman 1991; Dutch, Koster 1987; Hixkaryana, Derbyshire 1985; Japanese, Katada 1991; Kannada, Lidz 2001; Norwegian, Hellan 1988; Tsez, Polinsky & Comrie 2003). The strong hypothesis that this suggests is that subject-orientation is a universal property of reflexivity. Thus subject-orientation would need to be at the core of the binding theory, and languages whose reflexives do not readily exhibit properties of subject-orientation, such as English, would only need more careful investigation into the data to reveal it.

²²Romance is more constrained than English in this regard, as Romance generally disallows P-stranding.

²³This may be the case as a sort of pragmatic implicature: not using the more constrained derivation would be a cue that there is a structural/interpretational reason not to do so.

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