

# Systematic ‘stray’ focus stress in English? ApparentLY!\*

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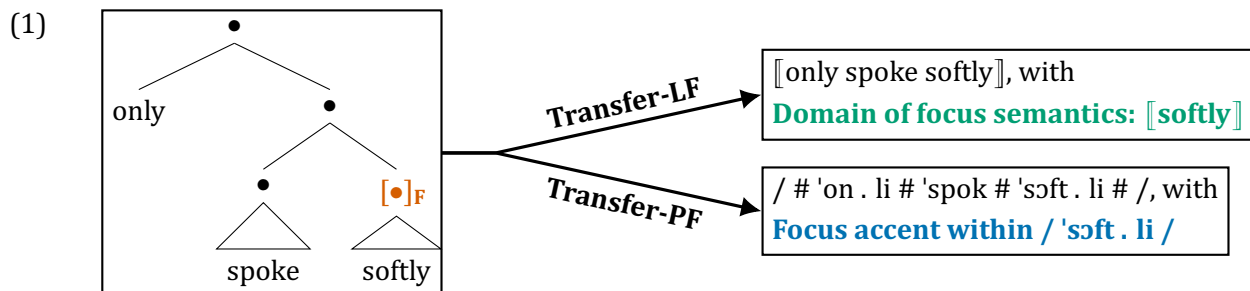
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## Abstract

In certain responsive contexts, English allows normally prosodically-weak syllables to exceptionally bear focus marking: “apparentLY,” “mayBÉ,” “looks LÍKE,” etc. This is striking for at least two reasons: (i) English prosody is otherwise robust in requiring focus accents to arise on the head of a prosodic category (and not on a weak position, as here), and (ii) the focus accent here arises on an expression that is not even part of the semantically-focused domain—that is, this phenomenon involves a semantics-prosody misalignment. As this “stray” focal stress (SFS) phenomenon has received almost no attention in the literature, we begin by describing its distributional, phonological, and semantic properties. We then propose an analysis whereby SFS arises as a side effect of a syntactic derivation in which the domain of F-marking happens not to map to any segmentally-overt material at PF. As a result of this, the focus prosody must look for a host elsewhere, only finding an optimal host on PF material corresponding to a position outside the F-marked domain. In the SFS data we analyze in this paper, the null F-marked element sits in the low left periphery and contributes meaning relating to the speaker’s beliefs, encoding their degree of certainty about the assertion. However, our analysis also predicts that SFS should arise in various other configurations where null operators are under semantic focus. By characterizing these general conditions for SFS, we hope to provide a blueprint for the identification and analysis of other such semantics-prosody misalignments.

## 1 Introduction

In languages like English, the semantics of focus and the prosodic realization of focus are closely aligned—so much so that the two are often conflated as a single theoretical construct, “focus”.<sup>1</sup> However, a standard Y-model approach requires that, at LF and PF, focus meaning and focus marking (respectively) are defined independent of one another, with each as a distinct reflex of F-marking in the syntax.<sup>2</sup>



A strong alignment between these two constructs – P(rosodic)-Focus and S(ematic)-Focus – is expected since PF and LF interpret the same syntactic input. This alignment is thought to follow from

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<sup>1</sup>But see work on so-called *second-occurrence focus*, e.g. Beaver et al. (2007).

<sup>2</sup>F-marking is formalized as a syntactic feature variously called Foc, FOC, FoC, and F in the literature (Jackendoff 1972, Selkirk 1984, Rooth 1992, Selkirk 1995, Truckenbrodt 1995, Krifka 2004, Büring 2016 among others).

some grammatical mechanism (e.g. a constraint system); two widely-accepted generalizations about its effects are as follows (see e.g. Jackendoff 1972:§6.2, Selkirk 1984:§5.2, Truckenbrodt 1995:§4.3, Büring 2016:§4.1):

- (2) a. **Focus Accent and Semantic Domains of Focus**  
A focus accent occurs within the string that corresponds to the domain of semantic focus
- b. **Focus Accent and Prosodic Strength**  
A focus accent is realized on the most prominent syllable in the semantic domain of focus

These generalizations are exemplified by (3a), where the syllable hosting P-Focus (marked with an accent in English; illustrated with an acute accent and bold caps) falls within the domain of the S-Focus (i.e., the constituent for which focus alternatives are generated). They also rule out misalignments such as (3b–c).

- (3) a. They only spoke [**SÓFT**ly]<sub>F</sub>.  
b. \*They only spoke [soft**LÝ**]<sub>F</sub>. (violating (2b))  
c. \*They only **SPÓKE** [softly]<sub>F</sub>. (violating (2a))

For (3b), P-Focus is misaligned with respect to the underlying representation of *softly*, in which the initial syllable is the most prominent (yet does not host P-Focus, contrary to (2b)). For (3c), P-Focus is misaligned with respect to S-Focus, in that the former is realized entirely outside the domain of the latter.<sup>3</sup>

Despite the pressure toward alignment described in (2), a highly restricted set of examples similar to those in (3b–c) is nevertheless well-formed. This paper deals specifically with acceptable misalignments where the P-Focus is outside the semantic domain of focus and on a syllable that is not most prominent in its domain—what we call a *Stray Focus Stress* (SFS). Compare the responses in B1 and B2, below:<sup>4</sup>

- (4) [A and B wait impatiently for their train, which is running far behind schedule]
- a. A: It looks like we'll be late to the party.  
b. B1: Yeah, ap**PÁ**rently. (Expected P-Focus placement)  
c. B2: Yeah, appàrent**LÝ**. (SFS pattern)

This paper explores reduced replies like (4c), which we call *SFS in Reduced Replies* (SFS<sub>RR</sub>). The stress placement in (4c) “stray” because it exceptionally arises on a syllable that is not lexically stressed (violating (2b)). In addition, it can be shown to violate (2a) as well, since, as we will see, the denotation of (the terminal(s) expounded by) /-ly/ is not even the S-Focus domain in such examples.

As SFS<sub>RR</sub> has received almost no attention in the literature,<sup>5</sup> we begin by describing its basic properties. Prosodically, we argue that SFS<sub>RR</sub> is a pitch accent that is realized outside of the prosodic head, on an utterance-final syllable; distributionally, we note that SFS<sub>RR</sub> arises in the context of clausal ellipsis; and, semantically, we claim that SFS<sub>RR</sub> conveys *focused weak certainty* about the assertion. We analyze this as a silent operator (here, one encoding the degree of certainty for an assertion) under semantic focus. As a silent element, such an operator is an unsuitable host for P-Focus, which then is realized as a prosodic morpheme that floats outside the S-Focus domain (in a manner to be clarified),

<sup>3</sup>For extensive discussion of misalignments where the P-Focus falls outside the domain of S-Focus, see Bennett et al. (2019) for Irish, and Ahn & Sailor (2019) for several other languages.

<sup>4</sup>Our impression is that SFS is especially common in (and perhaps unique to) North American varieties of English, but further work is necessary to ascertain its dialectal distribution. It belongs to a colloquial spoken register, as reflected in the examples lacking root subjects below.

<sup>5</sup>But see Armstrong & Schwenter (2016) for results on the intonation & pragmatics of SFS<sub>RR</sub>.

giving rise to the misalignment pattern. We close by situating this phenomenon within a broader taxonomy of S-Focus / P-Focus misalignments, which are in fact predicted in a Y-model where PF and LF interpret syntax independently of one another and according to their own computational rules.

## 2 The empirical profile of Stray Focus Stress in Reduced Replies

### 2.1 The syntactic distribution of SFS<sub>RR</sub>

SFS<sub>RR</sub> arises in dialogue when one speaker gives a reduced reply to a preceding assertion in the discourse with an expression of their relative certainty about the truth of that proposition. Given this anaphoric use, SFS<sub>RR</sub> naturally co-occurs with ellipsis, for example in bare adverbial responses (Kramer & Rawlins 2011, Kroll & Roberts 2019):

- (5) [No one knows for sure whether Jill's grant will be funded, but all think it should be.] (6) [Jim and Ann's grandpa usually brings special cookies when he visits on Christmas.]  
 A: I think Jill's grant will be funded. A: I bet grandpa will bring his cookies.  
 B: HòpefulLÝ. / Hòpefully. J: MàyBÉ. / Màybe.
- (7) [Lynda and Janelle are going to a dinner, and there is less traffic than usual.] (8) [Kris and Shane look up from their desk and see a rainbow in the distance.]  
 J: I think we will be early. K: Oh, it must be raining.  
 L: PròbabLÝ. / Pròbably. S: AppàrentLÝ. / Appàrently.

Non-adverbial hosts for SFS<sub>RR</sub> are also commonplace. Strikingly, the host for SFS<sub>RR</sub> need not be a word that itself expresses speaker certainty, as in these examples involving responsive ellipsis (see Kramer & Rawlins 2011 and Sailor 2012 on polar response particles such as *so/not*):

- (9) [Ava and Gio are leaving the house when they notice the sidewalk dusted with snow.] (10) [Molly and Rita want to take the train or bus. They find a sign: "Bus not running".]  
 G: It must have snowed. M: So we'll have to take the train.  
 A: (It) mùst HÁVE. / (It) mùst (ha)ve. R: (I) guèss SÓ / (I) guèss so.

Note that ellipsis seems to be required in these cases:<sup>6</sup>

- (11) [Kris and Shane look up from their desk and see a rainbow in the distance.] (12) [Lynda and Janelle are going to a dinner, and there is less traffic than usual.]  
 K: Oh, it must be raining. J: I think we will be early.  
 a. S: AppàrentLÝ. a. L: PròbabLÝ.  
 b. S: \* AppàrentLÝ it's raining. b. L: \* We pròbabLÝ will be early.  
 c. S: \* Appàrently it's rainÍNG. c. L: \* We pròbably will be earLÝ.  
 d. S: Appàrently it ÍS (raining). d. L: We pròbably WÍLL be (early).

When more of the clause is pronounced, as in the (b)–(d) examples above, the most natural position for P-Focus would be in the middlefield region between the verb and the subject. (We return to this in §2.3.)

<sup>6</sup>More needs to be said about cases such as *Seems LIKE it*, which are attested. Note that their highly reduced nature still appears to be a crucial factor; cf. \**Seems LIKE it did* / \**Seems LIKE it's true*. Thus, while ellipsis is required in these examples, there may be other derivational contexts that license SFS<sub>RR</sub>.

- (13) **Observation 1:** Ellipsis of a portion of the clause (including the middlefield) is required to license  $SFS_{RR}$ .

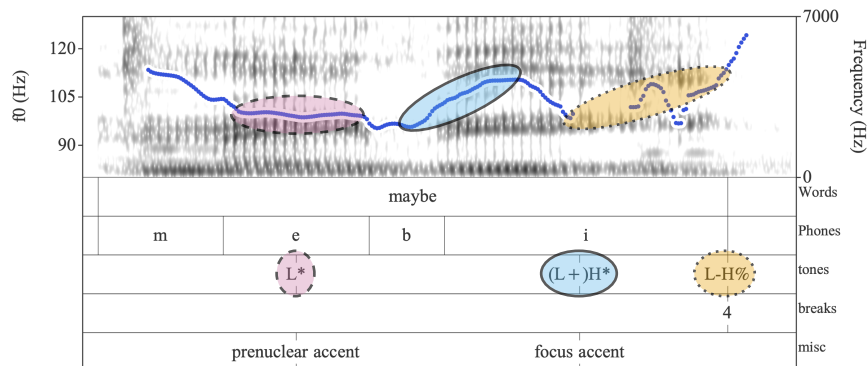
We aim to account for this in the analysis in §3.2. For now, it will suffice to conclude that syntax plays a crucial role in deriving this P-Focus~S-Focus phenomenon.

## 2.2 The phonology of $SFS_{RR}$

One might wonder if the pattern in (5)–(12) is in fact a boundary tone (BT) phenomenon: it involves special prosodic marking at the right edge of an Intonation Phrase ( $\iota$ ), there are some pitch movements on a non-prominent  $\iota$ -final syllable (BTs occur in this position; Beckman & Pierrehumbert 1986 *et seqq.*), and some particular meaning is added (BTs add meaning of illocutionary force, information structure, speaker attitude, etc.; Pierrehumbert & Hirschberg 1990, Constant 2012, Dehé et al. 2018, among others). However,  $SFS_{RR}$  is not related to the *melodic* contour (pitch movements) at all. Instead, it relates to the *prominence* contour (stress/accent placement) on the  $\iota$ -final syllable, as we argue below.

First, the tune in  $SFS_{RR}$  data comprises a pre-nuclear accent, a focus accent, and a boundary tone (cf. Armstrong & Schwenter 2016). Consider the illustration in (14), with an annotated pitch track. (For downloadable recordings of  $SFS_{RR}$ , see Ahn et al. 2021.)

- (14) [Eleanor and Chidi are discussing whether it's smart to work with a demon to solve a problem.]  
 E: Teaming up with a demon is insane.  
 C: màyBÉ / máybe



In (14), the unstressed  $\iota$ -final syllable, /bi/, hosts a rise-fall-rise pattern; however, there is no such BT in the intonational inventory of English. In fact, English intonational phonology (Pierrehumbert 1980 *et seqq.*) only allows two rises on the same syllable if one is an edge-marking BT (e.g. L-H%) and the other is a prominence-marking pitch accent (e.g. (L+)H\*). Thus, we must conclude that a (L+)H\* pitch accent is present here, and surfacing in an exceptional (“stray”) position. Additionally, the tonal values for accent-markers and edge-markers can vary for  $SFS_{RR}$ , reflecting common variance in the tonal realization of focus more generally (in e.g. US English). For instance, a focus pitch accent can be realized differently in different contexts (e.g. L+H\*, H\*, and L\*), and BTs can vary independently, signaling separate aspects of meaning.<sup>7</sup> Thus,  $SFS$  does not correspond to any single melodic contour. In sum,  $SFS_{RR}$  does not reduce to a BT phenomenon, but rather involves a focus accent arising unexpectedly

<sup>7</sup>We identify at least three distinct BTs that can occur in  $SFS_{RR}$ : Falling (L-L%), Fall-Rise (L-H%), and Level Downstepped High (!H-L%). Choice among the three appears to depend on semantic/pragmatic context, but we leave it to future work to clarify interactions between  $SFS_{RR}$  and BT choice.

on an  $\iota$ -final syllable that is not phrasally stressed (specifically, the SFS<sub>RR</sub> accent is not on the head of its prosodic domain).

### 2.3 The semantics of SFS<sub>RR</sub>

SFS<sub>RR</sub> is only possible with certain propositional modifiers or subordinators (Armstrong & Schwenter (2016), the only other work on SFS<sub>RR</sub> that we know of). For example:

- (15) A: Those people are for sure from Texas. (from A&S 2016)  
 a. B: Yeah, appàrentLÝ.  
 b. B: \* Yeah, dèfiniteLÝ. (cf. ✓ DÉfinally)
- (16) A: Do you think Mr. Never-On-Time will be late?  
 a. B: Yeah, pròbabLÝ.  
 b. B: \* Yeah, unsurprìsingLÝ. (cf. ✓ unsurPRÍsingly)

The acceptability of SFS<sub>RR</sub> evidently depends on the degree of the speaker's certainty about the truth of the proposition  $p$ .<sup>8</sup> We can paraphrase its contribution as follows:

- (17) **Paraphrase of SFS<sub>RR</sub>:** In joint consideration with the interlocutor's contribution, the speaker opts not to add  $p$  to the Common Ground with complete certainty (and opts instead to add it with mid-to-high degree of certainty).

Thus, while SFS<sub>RR</sub> may involve emphasizing a high degree on the scale of epistemic certainty, it is not compatible with utterances in which the speaker commits to or presupposes the truth of  $p$ .<sup>9</sup> As such, we expect that clauses containing an SFS<sub>RR</sub> should be unable to (i) settle a question under discussion, or (ii) be used where the speaker has total certainty about the truth of  $p$ . Both appear to be correct, as seen in (18) and (19), respectively:

- (18) A: D'you think they made a Zoom link?  
 B: HòpefulLÝ. (SFS<sub>RR</sub>)  
 a. #...It is on the website.  
 b. ...It would be on the website if they did.
- (19) Q: Is it raining?  
 a. A: It SEEMS so. But it isn't. (non-SFS)  
 b. A: # It seems SO. But it isn't. (SFS<sub>RR</sub>)

We take (18) to show that SFS<sub>RR</sub> behaves differently than e.g. affirmative polarity focus (cf. emphatic assertions in Nupe; Kandybowicz 2013), a property we return to later. As for (19), the response in (19b) involves a contradiction because SFS<sub>RR</sub> has the meaning in (17): the SFS pattern in the first clause signals that the speaker cannot commit to the truth of  $p$ , whereas the assertion in the second

<sup>8</sup>As mentioned above, note that this sort of meaning (relating to certainty and joint beliefs) is conventionally expressed prosodically in intonational languages like English (cf. Pierrehumbert & Hirschberg 1990, Hirschberg & Ward 1992, Gunlogson 2004, Armstrong & Prieto 2015, among others). In many cases, these meanings are thought to be contributed by the tune (i.e., tone types for accents and edge tones); this work shows how accent *placement* can yield similar interpretive effects with respect to certainty/beliefs.

<sup>9</sup>This paraphrase describes the SFS<sub>RR</sub> data in this paper, and mirrors our formal analysis. SFS<sub>RR</sub> allows other interpretations, which we argue are pragmatically derived from the interaction of this semantic contribution with the context. For example, if interlocutors are fully certain about  $p$ , using SFS<sub>RR</sub> would flout the Maxim of Quantity, and may yield readings that have mirative flavors (as described in A&S 2016) or certain types of affectivity, as implicatures.

clause requires just such a commitment. This constitutes the second property of  $SFS_{RR}$  to be accounted for:

- (20) **Observation 2:**  $SFS_{RR}$  is impossible when the utterance generates commitment to or presupposes  $p$ .

Before proposing an analysis of  $SFS_{RR}$ , though, we first turn to the matter of S-Focus. Our fundamental claim is that  $SFS_{RR}$  involves a kind of misalignment between where P-Focus is realized and the domain of S-Focus; thus, we must specify the domain of S-Focus in  $SFS_{RR}$  environments.

Consider the following minimal pairs, whose meaning crucially seems not to change under ellipsis:

- (21) A: D'you think they made a Zoom link?  
 a. B: HòpefulLÝ (SFS<sub>RR</sub>)  
 b. B: Hòpefully they HÁVE made a Zoom link (unelided  $p$ )
- (22) A: Do you think it'll be ready?  
 a. B: PòssiBLÝ (SFS<sub>RR</sub>)  
 b. B: It pòssibly WÍLL be ready (unelided  $p$ )

When the whole clause expressing  $p$  is overt (i.e. no ellipsis has applied), the P-Focus accent – which conveys the same meaning as in  $SFS_{RR}$  cases – falls on an element in the middlefield, e.g. on modals/auxiliaries in T such as *have* and *will*. Crucially, though, this prosodic difference does not correlate with a semantic difference. Thus, based on the semantic equivalence of the examples in (22a) and (22b), we adopt the simplest assumption that the two examples have identical semantic focus structures. In other words, the difference in the position of P-Focus in such pairs does not correlate with a difference in S-Focus; rather, the same (null) element bears S-Focus in each, and independent factors (e.g. ellipsis) dictates where P-Focus will arise. We turn to the identification of this element presently.

### 3 Proposal

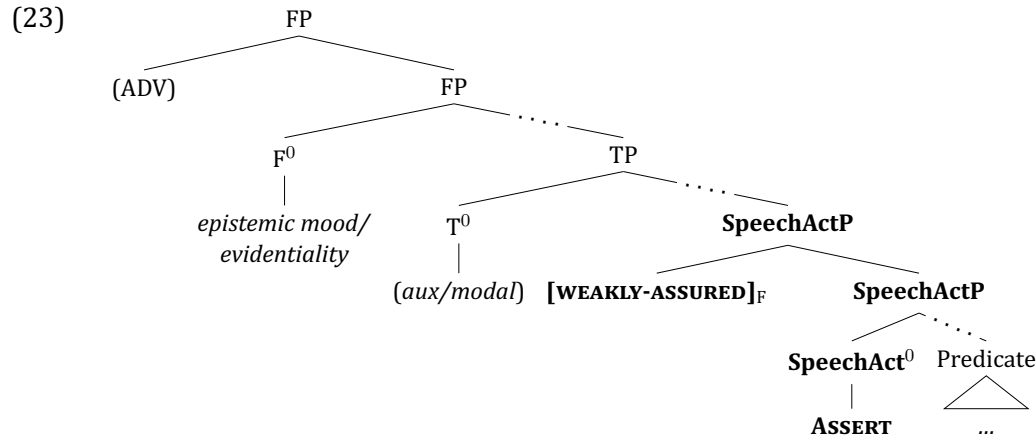
Following the logic above, the S-Focus domain in  $SFS_{RR}$  must comprise a morpheme<sup>10</sup> (in the Distributed Morphology sense: Halle & Marantz 1993) with the following properties: (i) its Vocabulary Item must be null, and thus not a candidate for hosting P-Focus, leading to the stray (floating) property of the accent; (ii) its encyclopedia entry must encode meaning relating to the speaker's weak certainty about the assertion; and, finally, (iii) its feature bundle must be generated in the middlefield, local to T, on the assumption that a stray accent must dock to a host in its immediate morphophonological neighborhood.<sup>11</sup>

Putting these properties together with existing claims in the literature, the ingredients for an analysis begin to emerge. First, following previous work (Duffield 2013, Kandybowicz 2013, and Thomas 2018), we assume that there is a low,  $\nu P$ -peripheral Speech Act projection encoding information related to the assertion (cf. (iii)). We take this representation of the assertion, *ASSERT*, to be a speech act operator which, based on Greenberg & Wolf (2018), expresses a degree relation that can be modified. Thus, we claim that the “weakly assured” reading that characterizes  $SFS$  arises from just such a degree modifier, *WEAKLY-ASSURED*, which is generated as a modifier of the low Speech Act phrase

<sup>10</sup>In principle, the S-Focus domain could be a set of morphemes; but, as we argue,  $SFS_{RR}$ 's S-Focus domain consists of just one morpheme.

<sup>11</sup>In other words, while the surface position of P-Focus does not correspond transparently to the S-Focus in  $SFS$  contexts (by definition), where it docks can be informative about which constituent is F-marked (and thereby the domain of S-Focus), since unlinked prosodic structures (like floating accents) are constrained in how far they can float (see Hayes 1995:§3.8).

hosting ASSERT (cf. (ii)). As WEAKLY-ASSURED is silent in English, and thus an illicit host for P-Focus, the conditions for SFS<sub>RR</sub> are now in place (cf. (i)). A sketch of its basic syntax is below:



We can now identify the domain of S-Focus in SFS<sub>RR</sub> as WEAKLY-ASSURED.

Semantically, this null degree operator WEAKLY-ASSURED attenuates ASSERT by modifying it with a mid-high scalar value. S-Focus on WEAKLY-ASSURED has the usual focus-semantic effect of generating alternatives (Rooth 1992 *et seqq.*), in this case as a set of degrees of certainty or *credence* (see Greenberg & Wolf 2018). This correctly characterizes the interpretive effect of SFS<sub>RR</sub>: under S-Focus, WEAKLY-ASSURED contrasts with lower-credence alternatives, yielding a reading akin to emphatic assertion (see e.g. Kandybowicz 2013 and references therein), but it also contrasts with higher degrees of credence, correctly highlighting that the speaker cannot commit fully to the truth of *p*.

Syntactically, we assume that F-marking in the syntax provides the instructions for specifying S-Focus and P-Focus at the interfaces. While ellipsis clearly plays a role (and see below), its relevance for SFS<sub>RR</sub> arises strictly at PF, where the silence of ellipsis is effected (Merchant 2001, Sailor *to appear*, among others), and the constituent that is elided dominates the TP-internal SpeechActP.

Prosodically, S-Focus on WEAKLY-ASSURED also leads to the “stray” character of SFS: because the domain of S-Focus happens not to contain any segmental material at PF, the P-Focus accent behaves like a floating accent.<sup>12</sup> Specifically, the need for a suitable (non-null) host for P-Focus requires docking of the focus accent to an exceptional position—one both outside the domain of S-Focus, and on an otherwise-unstressed syllable. We propose a formal analysis for the phonology of SFS<sub>RR</sub> in the next section.

### 3.1 Key phonological constraints for ‘misaligned’ focus Prosody

To capture the generalizations that we discussed in §1 about focus alignment, as well as to capture the phonological behavior of SFS<sub>RR</sub>, we employ the four (violable) constraints ranked in (24).<sup>13</sup>

(24) MINSIZE, NOCROWD » ACCENT→HEAD, CONTAIN

The first two constraints deal with general properties of English prosody:

<sup>12</sup>In fact, arguably English P-Focus is always a floating accent morpheme (its surface position is determined post-lexically); this is especially clear when its typical docking behavior is disrupted, as in SFS<sub>RR</sub> contexts (see below).

<sup>13</sup>A complete analysis of focus alignment would require more constraints to account for the details of focus prosody. For instance, there must be constraints managing the phonetic alignment of the tone target(s) that manifest the phonological pitch accent. These questions are outside the scope of the current work, so we leave them aside.

- (25) NOCROWD(Pitch Accent, Syllable): Only one pitch accent per syllable. Assign a violation if more than one pitch accent is realized in a single syllable.
- (26) MINSIZE(P-Focus, Syllable): The minimum prosodic structure required to support prosodic focus is a syllable. Assign a violation if the focus accent occurs in a prosodic structure smaller than a syllable.

NOCROWD (Féry 2017, citing Antilla and Bodomo 2000) encodes the fact that English intonational phonology does not allow multiple pitch accents to associate with a single tone-bearing unit (Beckman & Pierrehumbert 1986, *inter alia*). MINSIZE (in the spirit of MIN constraints; Bennett et al. 2019) yields the fact that English P-Focus is realized at the level of the syllable (Lieberman & Prince 1977, *inter alia*). These two constraints are very highly ranked (see (24)), given that there appear to be no exceptions to them.

The other two constraints relating to the generalizations in (2) are defined as follows:

- (27) CONTAIN(Focus Accent, F-marked constituent): Focus accent occurs within the F-marked constituent. Assign a violation if the focus accent does not occur within the phonological material corresponding to the F-marked constituent.<sup>14</sup>
- (28) ACCENT→HEAD (a.k.a. \*NON-HD/FOCAC): Focus accents are associated with the head of the relevant prosodic domain. Assign a violation if the focus accent is associated with a node in prosodic structure that is not the head of its domain.

The CONTAIN constraint effectively yields semantics-prosody alignment effects, such that P-Focus manifests in F-marked constituents (Selkirk 1995, *inter alia*), key to generalization (2a). The ACCENT→HEAD constraint concerns attraction of the focus accent to the most prominent syllable in a prosodic domain, effectively yielding phonology-internal alignment effects (cf. HD constraints in Yip 2001, de Lacy 2002).<sup>15</sup> This is key to generalization (2b).

### 3.2 Deriving SFS<sub>RR</sub> misalignments

As a result of the former two constraints outranking the latter two, focus misalignments arise – flouting the generalizations in (2a) and/or (2b) – in order to avoid creating problems of minimum size or pitch-accent crowding. In what follows, we explore two types of misalignments:

- (29) a. **Type A Misalignment:**  
CONTAIN is violated to meet MINSIZE, flouting (2a); ACCENT→HEAD remains unviolated.  
*ex.*: Hòpefully they **HÁVE** [WEAKLY-ASSURED]<sub>F</sub> made a Zoom link.
- b. **Type B Misalignment:**  
CONTAIN is again violated to meet MINSIZE, but ACCENT→HEAD is too, flouting (2b).  
*ex.*: A: I hope it's nice tomorrow for our picnic.  
B: HòpefulLÝ!

We have already encountered an example of a Type A misalignment in the unelided counterpart of SFS<sub>RR</sub> (see (21b); repeated in (29a)), where P-Focus lands on a stressed syllable, but in the “wrong”

<sup>14</sup>As we state it here, this constraint requires comparison of syntactic and phonological information simultaneously, in violation of Strict Modularity (contrast with FOCUS-TO-PROMINENCE in Bennett et al. 2019:84, which compares S-Focus and P-Focus directly). However, note that we use “F-marking” in this constraint as shorthand for the prosodic representation of the F-marked domain, whatever that may be (e.g. a particular kind of prosodic constituent). That is, we assume that (27) can be defined purely phonologically (thus respecting modularity), but we leave details aside.

<sup>15</sup>See also Gussenhoven (2004:ch. 8) for additional constraints necessary for intonational phonology, including constraints that resemble the form ACCENT→HEAD.



word. We model Type A misalignments – which have been discussed in the literature before (e.g. polarity focus being realized on the element in T), but have not previously been categorized as a misalignment – in the following way. After the syntactic representation (with F-marking on WEAKLY-ASSURED) is passed to the phonology, what is F-marked in the syntax is realized as a segmentless morpheme, but the F-marked constituent itself does not map onto any prosodic structure that can support this accent (which must be a syllable or larger by MINSIZE). As a result, the focus accent “floats”, in that the host for P-Focus will have to be something that is outside the F-marked/S-Focused constituent. This violates CONTAIN, but is preferred over the alternative where MINSIZE is violated to realize P-Focus on the sub-syllabic WEAKLY-ASSURED, due to the ranking MINSIZE»CONTAIN. Finally, because of ACCENT→HEAD, P-Focus manifests on the lexically-stressed word to its left in Type A misalignments (in this case: *have*).

Type B misalignments, exemplified by SFS<sub>RR</sub> as in (29b), are the main focus of this paper. These SFS misalignments involve two fundamentally different violations: (i) P-Focus placement is on the wrong word (cf. CONTAIN), and (ii) P-Focus placement violates general prosodic constraints regarding focus association (cf. ACCENT→HEAD). In other words, Type B misalignments are a case of *double* misalignment. Below, we sketch the details of how they emerge from the interaction of syntax and phonology.

In the case of Bare Adverbial Responses (BARs), an adverb occurs outside of a clause-sized ellipsis site (Kroll & Roberts 2019), with its position derived via movement, as in the following syntax:

(30) [ probably [<sub>Clause</sub> ~~we~~ ~~t<sub>probably</sub>~~ ~~will arrive late~~ ] ] (BAR, not SFS<sub>RR</sub>)

In the same way as the Type A misalignment in (29a), WEAKLY-ASSURED is F-marked. Unlike the Type A misalignment, though, the F-marked WEAKLY-ASSURED merges in what will be an ellipsis site. Because P-Focus cannot be realized inside an ellipsis site (trivially), derivations in which WEAKLY-ASSURED does not move out of the ellipsis site will not converge (see Merchant 2018:259 on ellipsis-internal F-marking vs. what we call P-Focus). Thus, BARs with SFS involve two ellipsis remnants (the adverbial and the operator), each with its own focus marking (Winkler 2018), suggesting the following syntax:

(31) [ [probably]<sub>F</sub> [WEAKLY-ASSURED]<sub>F</sub> [ ~~we~~ ~~t<sub>probably</sub>~~ ~~will~~ ~~t<sub>weakly-assured</sub>~~ ~~arrive late~~ ] ] (SFS<sub>RR</sub>)

Our claim is that, as the only remnant with segmental content, the adverbial ends up hosting *both* focus accents corresponding to the F-marking: *pròbabĪLĪ*. The first of these (marked with a grave accent) is a pre-nuclear accent arising on the adverb’s lexically-stressed syllable, as a result of the adverbial’s own F-marking. The second of these – the nuclear accent – is the SFS, which has docked onto the adverbial’s final (non-lexically-stressed) syllable only after failing to find a host on the F-marked, but string-null, WEAKLY-ASSURED. Unlike in Type A misalignments, the floating accent cannot dock onto the lexically-stressed vowel:<sup>16</sup> this position is already taken by the adverbial’s own previously-calculated pre-nuclear accent.<sup>17</sup> (Recall that NOCROWD bans association of two pitch accents to a single syllable; cf. neutral-non-dominant docking patterns for floating grammatical tone in Rolle 2018.) Instead, the floating accent associates with a different syllable: in this case, the nearest (i.e., final) one (optimal

<sup>16</sup>Important here is derivational timing: [WEAKLY-ASSURED]<sub>F</sub> is Spelled Out separately from its prosodic host, which plays a critical role in why it surfaces as a “floating” element. The fact that it is Spelled Out alone can be derived “for free” if constituents must undergo Spell Out before moving; see Uriagereka (1999).

<sup>17</sup>Though we call it stray focus *stress*, this analysis only accounts for the placement of focus *accents*. If indeed SFS<sub>RR</sub> involves stress (as we suspect), more should be said about the means by which weak syllables can come to be stressed for focus. For example, it may be that what P-Focus is in SFS<sub>RR</sub> is empty prosodic structure (or syllabic space) that docks/encliticizes to induce refooting throughout the stem (cf. Inkelas 1999:§7 on Turkish stress-affecting affixes bearing underlying metrical structure). We leave exploration of these issues to future work (thanks to Heather Newell for discussion of this point).

given NOCROWD » ACCENT→HEAD).<sup>18</sup>

Turning now to Type B derivations involving non-adverbial clausal embedders as in (32), we claim that their derivation is largely similar to that of SFS<sub>RR</sub> BARs, except that the expression that embeds the (elided) clause is spelled out on its own, with the prosodic head being marked with its own P-Focus (realized as the obligatory pre-nuclear accent):

(32) [ [mùst 've been]<sub>F</sub> [WEAKLY-ASSURED]<sub>F</sub> [<sub>Clause</sub> ~~it WEAKLY-ASSURED was raining~~ ] ] (SFS<sub>RR</sub>)

As with BARs, the F-marked WEAKLY-ASSURED is realized at PF as a floating accent which associates with the final syllable of its host, despite that it is not the prosodic head (i.e., the most prominent syllable). This is for the same reason as before: the prosodic head is already associated with a different pitch accent, and NOCROWD bans double association.<sup>19</sup>

In sum, the SFS pattern in both of the cases in (31) and (32) reflects the interaction of independently-needed prosodic constraints and a syntax where F-marked elements can be string-vacuous. Here there are two F-marked constituents, and each needs to be realized with a P-Focus accent. In other words, SFS<sub>RR</sub> contexts are dual-focus contexts: the obligatory prenuclear accent is the first focus accent, and the stray accent is the second.

## 4 Conclusions and outlook

We have examined a particular set of cases where focus prosody strikingly “strays” outside the domain of the semantic focus – a misalignment between P-Focus and S-Focus. We provided both a first attempt at characterizing this phenomenon in detail, as well as a preliminary analysis.

We claimed that SFS arises when the domain of F-marking happens not to map to any segmentally-overt material at PF, leading the focus prosody to look for a host elsewhere, only finding one on PF material corresponding to a position outside the F-marked domain. Since S-Focus closely tracks F-marking, the result is a semantics-prosody misalignment. Among such misalignments, we identified two distinct types: Type A and Type B. The latter differs from the former in that the SFS arises on a syllable which is not independently the most prominent in its prosodic category (i.e., it can arise on a lexically-unstressed syllable), leading to the striking SFS pattern exemplified in this paper’s title. We showed that, for this SFS<sub>RR</sub>, ellipsis seems to play an important role: it creates a situation where the SFS is made to find a host especially late in the derivation, leading it to dock exceptionally to a normally-weak position.

Throughout the discussion, we concentrated on SFS<sub>RR</sub> data where the null F-marked/S-Focused element contributes meaning relating to the speaker’s beliefs—specifically, the degree to which the speaker is certain about the truth of the proposition. We identified this particular null element as a degree modifier, WEAKLY-ASSURED, which modifies a low left-peripheral degree operator expressing the strength of the assertion. This explains why our examples all involve an interpretation of *focused weak certainty*, and why the P-Focus can arise in the middlefield in such examples where ellipsis has not occurred.

Beyond SFS<sub>RR</sub>, we expect SFS to arise in other contexts not discussed here. This is a consequence of the general approach we adopt: namely, that semantics-prosody misalignments are rooted in syntax, with consequences for F-marked material that fails to map to segmental content. For example,

<sup>18</sup>This preference for docking to the nearest syllable could perhaps be captured with a faithfulness constraint that prefers P-Focus not stray too far from its position before floating (see fn.11), but we leave this aside here.

<sup>19</sup>Since there is clausal ellipsis here, each of these SFS expressions is derived from a clausal complement syntax, meaning the SFS *mùst have BÉEN* derives from a source like *it must have been that p*. Additionally, this means that *seems so* involves clausal ellipsis (and *so* is not a clausal proform; see Kramer & Rawlins (2011), Sailor (2012)).

in this vein, it may be that certain examples previously identified in the literature as *verum focus* are, in fact, Type A misalignments, with some other non-polarity operator – e.g. WEAKLY-ASSURED – being F-marked. Our system predicts that P-Focus would arise on the position traditionally associated with emphatic polarity in such cases ( $T^0$ ), thus giving the appearance of *verum focus* without any expression of polarity actually being S-Focused in such cases (see also P-Focus placement within the Irish verbal complex in predicate ellipsis contexts: Bennett et al. 2019). While many questions remain for SFS – and PF~LF misalignments more generally – we hope to have provided a means to address them.

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