

Against a Unified Analysis of Givenness and Focus

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The role of information structure in determining the placement of pitch accent in English is often reduced to notions of Focus (e.g. Chomsky, 1971; Vallduví, 1990; Rooth, 1992; Roberts, 1996) and Givenness (e.g. Chafe, 1974; Schwarzschild, 1999; Féry & Samek-Lodovici, 2006; Selkirk, 2007). In question-answer pairs like the following,¹ the default sentential stress pattern of English, where the strongest pitch accent falls at the right edge of the clause (see e.g. Liberman & Prince, 1977; Idsardi, 1992; Truckenbrodt, 1999), is altered in (b)—the accent shifts from the predicate *danced* onto the subject.

- (1) a. Q: What happened at the party?
A: Mary DANCED.
b. Q: Who danced?
A: MARY danced.

Typically, this is analyzed in one of two ways:

1. The accent pattern in (b) is derived from narrow Focus on *Mary*, where the Focus serves to select the proposition *danced(mary)* from among a set of alternatives of the form *danced(x)*, which is introduced by the question “who danced?” (Rooth, 1992; Roberts, 1996).
2. The accent pattern in (b) is derived from the fact that the predicate *danced* is Given, i.e. the denotation of *danced* is highly salient in the current discourse, due to the question about dancing (Schwarzschild, 1999). Given elements resist accent.

Intuition tells us that these two overlapping notions, Focus and Givenness, should be reducible to a single generalization. However, the data is not always straightforward. Examples like the following from Ladd (1996:p.175), where it appears that no set of alternatives is evoked, are problematic for Focus-based accounts.

- (2) She gave me a German book, but I don't READ German.

Conversely, examples like the following, where an evoked set of alternatives of the form *ordered(bill, x)* forces stress on *tofu*, are problematic for Givenness-based accounts. In this case, the Focus structure introduced by the question seems to “override” the Givenness of *tofu*.

- (3) Q: What did Bill order at the Tofu Palace?
A: He ordered grilled TOFU.

For these reasons, the two notions are often kept separate (e.g. Büring, 2008; Féry & Samek-Lodovici, 2006; Selkirk, 2007). However, this separation has recently been challenged by Wagner (2012), who instead argues for a hybrid concept where Givenness shifts accent within phrases that have a contrastive antecedent. Wagner argues that even *prima facie* counterexamples like (2) actually do involve some notion of contrast similar to the kind found in (3). Under Wagner's analysis, only one information-structural category is needed to restrict the assignment of pitch accent in English. While such a unification is conceptually desirable, this paper shows it to be untenable—*contra* Wagner, a contrastive interpretation is not always needed to shift accent away from a Given element.

¹ Throughout this paper, small caps are used to indicate the placement of the strongest pitch accent. Underlining is used to denote “de-accenting”, i.e. the lack of accent where one might otherwise expect it (Ladd, 1996; Swerts et al., 2002).

Moreover, in analyzing the class of examples where a contrastive interpretation *is* needed to shift accent, examples which Wagner (2012) importantly brings to light, a new analysis suggests itself. Under this new analysis, Givenness is restricted in certain syntactic contexts, and a separate notion of Focus (which requires a contrastive interpretation) is necessary to derive the accent-shifted prosodic pattern in those contexts. The crucial examples are explained by positing a syntactic Givenness-feature whose predicted projection behavior places a syntactic restriction on de-accenting. The placement of Focus, on the other hand, obeys only semantic/pragmatic and phonological constraints, not syntactic constraints. This suggests that Givenness and Focus are not only separate notions, as has been suggested by Selkirk (2007) and others, but that they operate at two different levels of grammar—Givenness is a feature encoded in the syntactic derivation of a sentence, and Focus is phonological feature whose placement is determined by discourse factors.

In section 1 I briefly outline the details of Wagner's (2012) analysis of Givenness-marking. In section 2 I argue against this account, suggesting that Focus and Givenness are indeed separate phenomena. Section 3 provides justification for a syntactic constraint on Givenness-marking: Givenness cannot license the de-accenting of an XP without forcing any adjuncts to that XP to also be de-accented. Section 4 analyzes this restriction as a byproduct of syntactic feature projection and draws a contrast between Givenness and Focus with respect to this behavior. Section 5 concludes.

1. Wagner's Unification

The following example shows de-accenting within an NP that is expected to be in Focus under the standard analyses of Rooth (1992) and Roberts (1996). Examples like this have been used as a strong case for the existence of Givenness as a feature separate from Focus (e.g. Roberts, 2006; De Kuthy & Meurers, 2011)

- (4) Q: Mary's rich uncle buys and sells expensive convertibles. He's coming to Mary's wedding. I wonder what he got her as a gift.
A: He got her [a CHEAP convertible] / ??He got her [a cheap CONVERTIBLE]

Wagner (2012) notices a crucial fact—Givenness alone is not a sufficient license to de-accent *convertible*. Rather, in order for the accent to shift from *convertible* to *cheap*, there must also be a **contrastive** antecedent for the XP within which the accent shift is taking place, in this case the NP [cheap convertible]. Contrast is defined informally as the relationship that holds between two linguistic objects which denote mutually exclusive descriptions. Formally, a constituent [*ab*] has a contrastive antecedent [*ab'*] iff the universal closure of the denotation of [*ab*] entails the negation of the existential closure of the denotation of [*ab'*]. In (4), the requirement holds because [cheap convertible] has an antecedent in the discourse, the NP [expensive convertibles] which denotes a mutually exclusive description. Formally, the requirement holds because the universal closure of [[cheap convertible]] ('for all x, x is a cheap convertible') entails the negation of the existential closure of [[expensive convertibles]] ('there exists an x such that x is an expensive convertible'). Cheap convertibles cannot also be expensive convertibles.

When we change the sentence so that there is no longer a contrastive antecedent, as in (5), the de-accenting becomes unacceptable. The default right-edge stress assignment, where the strongest pitch accent falls on *convertible*, is preferred.

- (5) Q: Mary's rich uncle buys and sells expensive convertibles. He's coming to Mary's wedding. I wonder what he got her as a gift.
A: #He got her [a BLUE convertible] / He got her [a blue CONVERTIBLE]
(after Wagner 2012, p.13)

Even though *convertible* is Given in that its meaning is highly salient in the prior discourse, the NP within which the attempted accent shift would take place, *blue convertible*, has no contrastive antecedent. Thus, the de-accenting has no license.

Wagner suggests that this unifies the distinct information-structural notions discussed above. If Givenness-marking always requires contrast, there is no longer a need for separate Focus features.

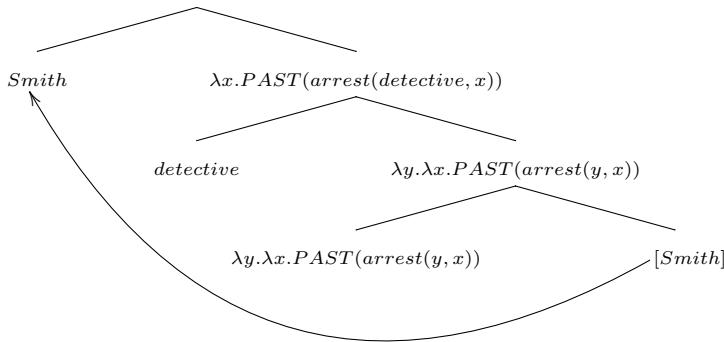


Figure 1: Movement at LF

Consider again the accent pattern in (3). Under this account, although *tofu* is Given in (3), it must bear accent because in order to shift accent from *tofu* to the adjacent word *grilled*, the NP [grilled *tofu*] would require a contrastive antecedent, e.g. [baked *tofu*] or [fried *tofu*]. No such antecedent exists. This fact is sufficient to explain the prominence on *tofu*.

Wagner extends his analysis in two ways to account for *prima facie* counterexamples: (I) when the domain of accent shift is the entire clause (e.g. when shifting from predicate to subject), a weakened definition of contrast is needed to account for the facts, and (II) in cases like (2), objects are required to move to a propositional node at LF. I address these in turn.

Consider the following example, where a predicate is de-accented.

- (6) Mary went SWIMMING. After that, JANE went swimming.

There is no mutual exclusivity relation between *Jane* and *Mary*. If the second clause has a propositional denotation like $swim(Jane)$, its universal closure is identical to itself, since there are no variables; similarly, $swim(Mary)$ is its own existential closure. There is no contrastive relationship here because $swim(Jane)$ does not entail that $swim(Mary)$ is false. Wagner postulates a different analysis for de-accenting sentential predicates: the mutual exclusivity requirement must hold not between a Given constituent and its antecedent, but rather between the application of an exhaustivity operator to the Given constituent, and the Given constituent's antecedent. In other words, the de-accenting of *went swimming* is licensed by the fact that, were Jane the *only* swimmer, this would entail the falsity of the antecedent *Mary went swimming*. This is stated formally below.

$$[[Exh]] = \lambda a.\lambda b. [[ab]] \ \& \ \forall b' \in C : [[ab']] = 1 \rightarrow ([ab] \Rightarrow [ab'])$$

Given a sentence $[ab]$, de-accent a only if there is an antecedent in the discourse $[ab']$ s.t.
 $Exh(a)(b) \Rightarrow \neg[ab']$

BOX 1: MUTUAL EXCLUSIVITY UNDER EXHAUSTIVITY

Wagner speculates that perhaps this stipulation is an inadequacy of the formalism used, rather than a deep difference between the two cases (p.23). In section 2 I suggest that it is in fact a deep problem with the unification of Givenness and Focus.

The second problematic case which Wagner addresses involves the de-accenting of direct objects without any apparent contrasting antecedent for the VP.

- (7) Smith got away from the scene of the crime in Mary's cheap convertible.

Q: Then what happened?

A: The car broke down, and a detective ARRESTED Smith.

There is no mutually exclusive antecedent of the form $\lambda x.P(x, Smith)$. Wagner claims that the de-accenting is licensed because Given objects move at LF yielding a structure like the one in Figure 1. Post-movement, the domain of accent shift is now the whole proposition rather than the predicate *arrested*

Smith, in which case Wagner hypothesizes that the contrast requirement is weakened by the exhaustivity operator from Box 1. The result is that the direct object can be de-accented as long as there is some antecedent in the discourse of the form $P(\textit{Smith})$ whose truth would be excluded if *Smith*'s being arrested were the only thing that happened to *Smith*.

In sum, Wagner attempts to unify Givenness and Focus by positing that Givenness-marking is limited by a requirement that accent must shift within an XP with a contrastive antecedent. Two caveats are required: first, contrast is defined differently for accent shift within whole clauses, and second, the analysis depends on the movement of objects at LF. The following section shows that even with these caveats, the analysis is untenable. Analysis of Wagner's crucial examples, e.g. (5), suggests an analysis that depends on both Givenness and Focus as distinct categories with distinct behaviors.

2. Argument against Unification

I now address two empirical problems with the analysis summarized above. First, the caveat that accent shift at the sentence level is constrained by mutual exclusivity under an exhaustivity operator breaks down in cases where the antecedent that is taken to license the accent shift is entailed by the sentence in question. Secondly, and perhaps more importantly, the assumption that objects move to a propositional node at LF, effectively weakening the contrast requirement for de-accenting, is problematic for three reasons: (I) de-accenting within DPs with no propositional node is acceptable in contexts with no explicitly contrastive antecedent, (II) apparent Givenness-marking does not obey island constraints, and (III) no specific predicate of a de-accented direct object needs to be mentioned or implied in discourse. I address these issues in turn.

The *Exh* operator is semantically the same as *only*. In (6) above, the accent shift in [Jane went swimming] is purportedly licensed by the fact that 'only Jane went swimming' excludes the antecedent 'Mary went swimming'. Though this is certainly true, we can change the example so that the antecedent is entailed by the accent-shifting sentence, in which case mutual exclusivity under *Exh* no longer holds.

(8) Mary went SWIMMING. In fact, EVERYBODY went swimming.

If we apply *Exh* to the de-accenting sentence we get a denotation that is true as long as any contextually relevant statement of the form 'x went swimming' is entailed by *everybody went swimming*. This is true of all possible alternatives, and thus this condition is vacuous—the application of *Exh* to 'everybody went swimming' is truth-conditionally equivalent to 'everybody went swimming'. Of course, everybody going swimming does not entail that there is somebody who is not swimming. Therefore, applying *Exh* does not exclude the antecedent in (8).

While the trouble with *Exh* may be merely a problem with the technical definition, there is a more serious issue: the analysis relies on LF-movement of Given-marked objects. This is problematic for several reasons. Firstly, it makes false predictions regarding de-accenting within DPs and islands. Recall example (7), containing the de-accenting pattern [a detective ARRESTED Smith] with no obvious contrastive antecedent. Here, it is said that *Smith* moves to a propositional node at LF, partitioning the semantic structure into the moved object *Smith* and $\lambda x.arrested(detective, x)$. The surface result is a broader pragmatic license for de-accenting. Wagner (p.29) posits that this broader pragmatic license should not be applicable to cases of de-accenting within DPs, since there is no propositional node within a DP to move to. *Contra* this prediction, example (9) shows that accent shift within a DP can indeed be acceptable without an obvious contrastive antecedent.

(9) My mother asked if we were moving to the city. I told her that the VIOLENCE in the city is a TURN-OFF.

Here we have a clear case of de-accenting within a DP (*city* would bear some accent if its denotation were not salient), and there is no mutually exclusive antecedent for *violence in the city*. At the very least, it is not clear that DPs can be used as evidence for LF-movement.

It is also possible to de-accent within islands. The following illustrates de-accenting of an element that, were it to move, would violate the Coordinate Structure Constraint (Ross, 1967).

- (10) a. * $[_{PP}$ From which store] did you buy a necklace t_{PP} and a belt from Macy's?
 b. Oh, you went to Sak's? Yesterday I bought a NECKLACE from Sak's and a BELT from MACY'S.

We could construct similar examples for other island constraints, but Wagner (2012:p.27) points out that other islands have propositional nodes, allowing movement within them rather than out of them, making these cases inconclusive under his analysis. The felicity of (10) is conclusive, however, given that the PP should not be able to move at all. An *in situ* analysis of this sentence predicts an antecedent of the form $\lambda x.P(x) \ \& \ from(Saks)(x)$ whose existential closure is made false by the universal closure of the first conjunct NP, $\forall x.necklace(x) \ \& \ from(Saks)(x)$. This prediction is not borne out. Even if we allow the possibility that only the DP *Sak's* is de-accented rather than the whole PP—and we should, since prepositions tend to resist accent regardless of information structure—we are still left with a false prediction.

- (11) a. * $[_{DP}$ Which store] did you buy a necklace from t_{DP} and a belt from Macy's?
 b. Oh, you went to Sak's? Yesterday I bought a NECKLACE from Sak's and a BELT from MACY'S.

Under this configuration, the illegality of the DP movement also requires an *in situ* analysis, which should require an element in the prior discourse to contrast with 'necklace'. Such a contrast does not exist in (11-b).

Finally, even under the LF-movement account, there would still need to be some antecedent that instantiates a predicate of the de-accented entity. For example, one should never be able to de-accent an object like *Smith* in (7) without some specific antecedent whose denotation takes the form $P(smith)$. *Contra* this prediction, felicity in such cases is possible. The following examples, which I take to be the strongest evidence against unifying Focus and Givenness, illustrate that de-accenting of salient linguistic structure is licensed even in out-of-the-blue contexts, where no discourse expectations have been established. In these cases, it is merely salience within the extralinguistic context that licenses accent shift. There does not seem to be any meaningful notion of contrast or alternatives at play.

- (12) Context: Pat is reading a book about castles in Germany. Chris walks in, sees Pat, and utters the following sentence out of the blue in order to engage Pat.

I've never BEEN to Germany. Have you?

- (13) Context: June comes home to find her roommate watching a documentary about Leo Tolstoy. June sits down next to her roommate and utters the following sentence.

My great-grandfather was FRIENDS with Tolstoy.

- (14) Context: Driving on the interstate, passing a road sign reading "Dayton, OH", a passenger utters the following to the driver.

I used to LIVE in Dayton.

Cases like this point toward a simple, salience-based Givenness account, which casts doubt on whether Focus and Givenness can really be collapsed into one. But the data brought to light by Wagner (2012), e.g. (4) and (5), leave us with a crucial question: when is contrast required to de-accent, and when is it not? In the following section I argue that the generalization is syntactic: **explicit contrast is required to shift accent onto an adjunct**. This restriction is straightforwardly explained by positing a syntactic Givenness-feature which projects as expected under standard syntactic assumptions. But under this analysis, a separate notion of Focus is necessary to derive the cases where contrast is required, e.g. (5). Focus and Givenness cannot be unified.

3. Syntactic Generalization

I now turn to the following question: given a constituent [*ab*], when is a contrastive antecedent [*ab'*] needed to shift accent from *a* to *b* when *a* is Given, and when is no such antecedent necessary? It is useful to distinguish the kinds of constituents that can be involved in accent shift. For example, in (5) a noun *convertible* is de-accented, which shifts prominence onto a modifying adjective *blue*, resulting in BLUE convertible. By contrast, in (7) an argument DP *Smith* is de-accented, shifting accent onto a verb *arrested*, resulting in ARRESTED Smith. When we look at the examples from Wagner (2012) that require a contrastive antecedent without assuming LF-movement or Exhaustivity, we find that there are two categories: 1) examples where accent is shifting from a modified noun phrase to its modifying adjunct, as in BLUE convertible, and 2) examples where accent is shifting within a sentence that is entirely Given. The contrast requirement for the entirely Given case can plausibly be seen as epiphenomenal—one cannot de-accent an entire sentence, and given no strong reason to do otherwise, it seems natural to revert to default prosody when a sentence is all-Given. This leaves us with the case of modifying adjectives. The following two minimal pairs highlight the difference between adjective and non-adjective cases.

- (15) a. Convertibles can be very dangerous. I don't like them. So I was a little disturbed when Jack decided to buy his NIECE a convertible.
 b. #... when Jack decided to buy his niece a BLUE convertible.
- (16) a. My mother asked if we were moving to the city. I told her that the VIOLENCE in the city is a TURN-OFF.
 b. #I told her that the VIOLENT city is no place to LIVE.

Shifting accent onto an adjective is illegal unless there is a contrastive antecedent. Note that the prosody in (16-b) would be fine if *the violent city* were contrasting with another city, e.g. *the peaceful city*. More examples are given in (17). These examples all share a Given context, and fall into five syntactic categories based on what kind of constituent is de-accented. Examples (17-d) and (17-e) show that adjectives and adverbs behave in the same way. Although it is almost always more natural to place a modifying adverb after a Given VP rather than before, it is more acceptable for a VP with a left-adjoined adverb to bear default prosody even when the modified VP is Given.

- (17) Fred really loves to dance...
 a. Just yesterday, he left the BUILDING dancing. (adjunct)
 b. Just yesterday, he said he wanted to TEACH dancing. (argument)
 c. Just yesterday, he made the whole FACULTY dance. (predicate)
 d. Just yesterday he tried to impress me with wild DANCING. /
 #Just yesterday he tried to impress me with WILD dancing. (modified NP)
 e. Just yesterday, he was in his office dancing WILDLY /
 ?Just yesterday he was in his office wildly DANCING. /
 #Just yesterday he was in his office WILDLY dancing. (modified VP)

We see that in both the modified NP and modified VP cases, where accent is shifting onto an adjunct, this non-contrastive context is not a sufficient license. Shifting accent *from* an adjunct, however is perfectly natural in this context, as is shifting from argument to verb and from predicate to subject. Now let's look at the same syntactic environments when there is an explicit contrasting antecedent.

- (18) a. I don't just like pasta al dente, I like RICE al dente, too. (adjunct)
 b. I don't just like to cook rice, I like to EAT rice, too. (argument)
 c. It's not just me who loves rice, my MOTHER loves rice, too (predicate)
 d. Some people prefer boiled rice, but I prefer STEAMED rice. (modified NP)
 e. You can't just watch the rice off and on; you have to watch it CONSTANTLY. /
 ...CONSTANTLY watch it. (modified VP)

Here we see that all environments allow de-accenting, though perhaps with some degradation in acceptability for left-adjoined adverbs. It can also be shown that question-answer pairs like those in (1) pattern with the contrastive cases, as is expected under the analyses of Rooth (1992), Roberts (1996) and others, where questions introduce an implicit contrast between alternative possible answers.

We are left with the following generalization: discourse salience alone cannot shift prosodic prominence onto an adjunct—either a contrasting antecedent or an appropriate question-answer context is required.² This generalization is taken to be evidence of a non-contrastive notion of Givenness that is subject to different distributional constraints than Focus. I now turn to a syntactic analysis.

4. Analysis

I propose that the cases above where no contrastive antecedent is required, i.e. those cases where accent is **not** shifting to an adjunct, e.g. (2), (7), (12), (13) and (14), are instances of Givenness-marking. In environments where Givenness cannot be marked, like when shifting accent onto an adjoined element, the accent shift can only be derived by taking the accented element to be (contrastively) Focused. Focus has two effects: first, it introduces the requirement that the Focused element have a contrastive antecedent in discourse, and second, it places an additional layer of prosodic prominence on the Focused element, which has the secondary effect of reducing the degree of relative of prominence on adjacent elements. This second effect can be seen as a loose restatement of Rooth’s (2009) “Relativized Stress-F” constraint.

I now turn to the question of why Givenness is syntactically restricted. I propose that Givenness is a property of XPs, and that marking a syntactic head as Given forces the entire maximal projection to be marked as Given, including adjuncts. This can be accounted for in terms of feature projection. I propose a formal G(ivenness)-feature which forces a flat intonational contour and introduces a particular presupposition. Namely, G-marking presupposes (similarly to Schwarzschild 1999) that the G-marked XP is entailed under existential closure by a salient subset of the discourse context, where the discourse context is taken to be the set of relevant shared-knowledge propositions accessible during the current discourse. This is formulated in Box 2, where C is the discourse context and where ExClo is an existential closure operation such that the following holds.

- $\text{ExClo}(\lambda x. [\dots x \dots]) \stackrel{def}{=} \exists x. [\dots x \dots]$
- $\text{ExClo}(y_e) \stackrel{def}{=} \exists x. x = y$
- $\text{ExClo}(\phi_t) \stackrel{def}{=} \phi$

$\text{XP}_G \text{ presupposes: } \exists \phi \in C. \text{salient}(\phi) \ \& \ \phi \rightarrow \text{ExClo}([\text{XP}])$

BOX 2: GIVENNESS PRESUPPOSITION

Givenness is taken to be a formal feature in the Minimalist sense (Chomsky, 1995), which is optionally merged into the syntactic derivation of a sentence. Under the standard assumptions about the behavior of formal features, the G-feature of a G-marked lexical item should project to the maximal XP of which that lexical item is a head. This is a basic and well-established behavior for other features, e.g. the WH-feature that marks wh-phrases for movement in languages like English. Figure 2 illustrates how the lexically supplied WH-feature of the determiner *which* projects to the DP *which professor*. By analogy, Figure 3 shows how a G-feature projects from the noun *convertible* to the NP *red convertible*. Because Givenness is optional, it is not taken to be a feature of the lexical item *convertible*. Rather, it is optionally merged into the structure at the morphological level—the noun *convertible* merges with a silent [GIVEN] morpheme to create a G-marked noun. This noun heads two nested NPs, [$_{NP}$ convertible] and [$_{NP}$ red[$_{NP}$ convertible]], and the G-feature necessarily projects to the maximal NP. This has the consequences shown in Figure 4. Marking *convertible* requires one to de-accent *red convertible*, and

² I have conducted an audio-based judgment task that supports this generalization. Judgments from 36 undergraduate subjects show a reliable increase in the rate at which accent shift is rejected (and in the speed with which the judgments are made) for utterances where right-edge pitch accent shifts from a Given element onto a modifying adjunct. Due to space limitations, the results will not be discussed in detail.

introduces the undesirable presupposition that the denotation of the maximal NP, ‘red convertible’, is salient within the context. Thus, de-accenting only *convertible*, shifting accent onto *red*, when only ‘convertible’ is Given is impossible to derive via G-marking. By hypothesis, the only way this intonation pattern (RED convertible) can be achieved is via Focus on the adjective, which introduces a contrast requirement. This is illustrated in (19). In an example like (2) on the other hand, both derivations are valid since projection of the G-feature stops at the DP *German*, and thus does not require de-accenting of the verb. Two derivations for (2) are shown in (20).

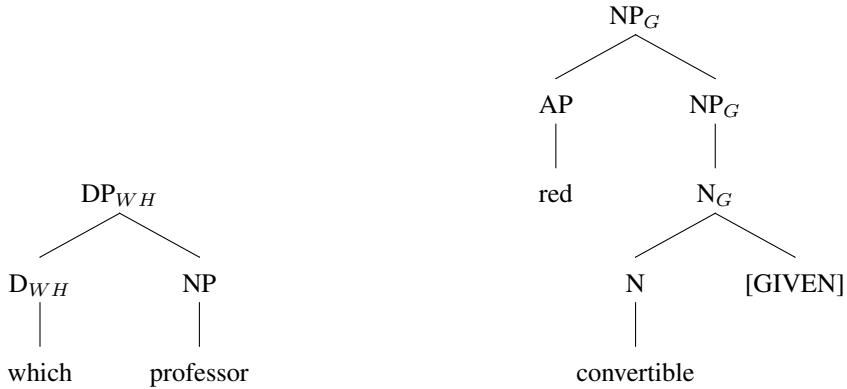


Figure 2: WH-feature projection

Figure 3: G-feature projection

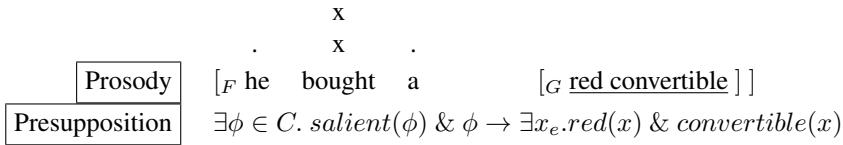


Figure 4: The consequences of feature projection on G-marking

- (19) a. [RED]_{FOC} convertible
- b. *RED convertible_G

- (20) a. I don't [READ]_{FOC} German
- b. I don't READ German_G

Finally, it should be noted that the projection behaviors that determine the placement of Givenness do not seem to constrain the placement of Focus in any way. For example, the feature projection account correctly predicts that Givenness should not be able to apply below the word level. Focus, on the other hand, applies freely to syllables within a word. I offer the example in (21) to illustrate the contrast—the syllables /min/ and /ser/ can be contrastively Focused, but the sequence of syllables /so.Da/ cannot be marked as Given.

- (21) a. We drove from MINnesota to SARasota (contrastive Focus)
- b. #We drove through MINnesota and drank a LOTta soda (Givenness)

Artstein (2004) shows that Focus below the word level is constrained by phonological factors, e.g. metrical structure. But there do not seem to be any *syntactic* constraints on the distribution of Focus. I posit, with an eye toward future research, that Focus is *not* encoded as a formal feature in syntax, but is rather a constraint on the interface between prosodic phonology and discourse structure. This leads to a surprising conclusion: not only must Givenness and Focus be kept separate, but they operate at different levels of linguistic representation.

5. Conclusion

There is much more to be said than what can be said here, but the data outlined in this paper make a clear suggestion: the simplest model of information structure vis-à-vis the placement of prosodic prominence is one where constraints on pitch accent are determined by the interaction of a syntactically constrained Givenness-feature and a syntactically unconstrained notion of (contrastive) Focus. This accounts for the apparent inconsistency in when contrastive antecedents are required to shift accent. Future work will explore the full implications of this, and the analysis will need refinements, but there is a strong case to be made that Givenness and Focus are different phenomena, both required to explain the full range of data.

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