Been There, Marked That — A Tentative Theory of Second Occurrence Focus

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1 Introduction

The phenomenon of *second occurrence focus* (henceforth 2OF), illustrated in (1) (from Hajičová et al. (1998)) has received considerable attention in the literature (e.g. Gussenhoven (1984), Hajičová (1973, 1984), Partee (1991, 1999)):[1]

(1) (Everyone already knew that Mary only eats vegetables.)
      If even PAUL$_F$ knew that Mary only eats vegetables$_F$, then he should

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[1]Here and henceforth, parts of the examples that serve as context, and are not annotated for focus or intonation, are set in parentheses.

have suggested a different restaurant.

The second sentence in (1) has two foci, *Paul* and *vegetables*, marked by subscripted F. We know they are foci because the particles *even* and *only* are *focus sensitive*, which is to say that their meaning changes depending what in the sentence is focussed. Here the resulting interpretation is that Paul is the least likely person to know what Mary ate (*even*), and that vegetables are the only thing Mary eats (*only*). We thus say that *Paul/vegetables* are *bound* or *associated* foci, associated with (or bound by) *even* and *only*, respectively.

What is surprising is that only the first of these foci is marked by a pitch accent (indicated by capitals); normally all foci in English are pitch accented. That is to say, in the overwhelming majority of cases involving *even, only* and their focus sensitive kin, diagnosing focus by the meaning of the sentence and diagnosing focus by locating major pitch accents in the sentence yield converging results. Examples like (1) are a notable exception to this.

What seems to be common among them is that the same focus, associated with the same particle, has occurred in the previous sentence (and been properly accented there). It is because of this property that *vegetables* in the second sentence of (1) is called a second occurrence focus (as opposed to, say, simply an 'unaccented focus'; notably, it is not called 2OF because it is the second focus in its clause).

As perhaps pointed out most clearly in Partee (1999), 2OF examples seem to force us to question either the assumption that foci always receive a prosodic realization, or the assumption that particles like *only* really (directly) associate with focus. Partee perceived at least the former possibility as a serious threat to current theories of focus, and — perhaps for the same reason — many works on focus seem to implicitly or explicitly endorse the view that the fault lies with our theories of *only* and its ilk, letting the focus–accent relation off the hook.

Beaver and Clark (2003), however, makes a convincing argument that the associates of *only* and the likes *are* grammatical foci. At the same time, it has been reported that 2OFi *are* prosodically marked, albeit not (always) by pitch accent, as is the custom for well-behaved 'normal' foci (Bartels (2004), Rooth (1996, 2004), and, to an extent, Krifka (2004)); their reports have been confirmed by recent, more systematic studies reported in Beaver et al. (2004), Féry and Ishihara (2005), and Jaeger (2004). It seems, then, that the fault lies with our ideas about focus after all, in particular the assumed

correlation between focus and pitch accent.

In the light of these findings, it may now be time to re-assess the question Partee asked: To what degree does 2OF challenge existing theories of focus, and what, if any, changes does it require? This paper is an attempt to formulate a theory of focus that is capable of capturing 2OFi and ordinary foci alike. My relieving conclusion will be that the data can be captured without radically re-writing the theory of focus, but that they do favor a specific set of assumptions about focus representation and realization.

2   Second Occurrence Focus in a Nutshell

2.1   The Facts

All the experimental studies on 2OF quoted above agree that 2OFi are marked at least by duration: items in 2OF are significantly longer than their unfocussed counterparts in comparable position. Ordinary foci (and I *will* be more specific about what that means in a moment) share this lengthening effect; in addition, however, ordinary foci are always pitch accented, whereas 2OF are not.[2] Although pitch accents are by far the most important ingredient of perceived prominence (which is why 2OF were regularly described as 'unmarked' in older accounts), speakers are actually able to perceive prominence on 2OFi, even when presented with the pertinent sentences out of context.

There is one qualification to be made, though: If a 2OF precedes, rather than follows the ordinary focus, it will get a pitch accent, as suggested in Rooth (1996), p.220 and the discussion of examples due to Dryer (1994) in (Beaver et al., 2004), and experimentally shown in Féry and Ishihara (2005); that pitch accent is of course followed by the final and most prominent pitch accent — the *nuclear pitch accent*, NPA — on the ordinary focus.

I will henceforth assume that the lengthening of foci is the consequence of metrical *stress*, i.e. prominence in the metrical structure. So all foci, ordinary and 2O, are made prominent by stress. In a nutshell:

- Second occurrence foci are not marked by pitch accent when they occur in post-nuclear position.

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[2]As discussed most explicitly in Jaeger (2004), 2OFi sometimes do get a pitch accent if they form a prosodic phrase of their own; I will leave discussion of these cases for a later occasion.

- They are, however, marked by lengthening.

- 2OFi are marked by pitch accent when pre-nuclear.

Unfortunately, these generalizations, to a certain extent, beg the main question: How come the 2OF does not get the nuclear accent? What does the element with the nuclear accent — the 'ordinary' or 'first occurrence focus' (1OF), as it were — have, that the element in 2OF does not? Unless we answer that question, the first bullet point above simply restates the definition of nuclear accent. In short, we need a definition of 2OF *vis-a-vis* 1OF that does not itself make reference to their prosodic realization. Once we have that, and only then, can we try to work the above generalizations into a theoretical account.

2.2 The Intuition, the Challenge, and a Preview of the Proposal

There is a prevalent intuition which can in one form or another be found in virtually all of the papers on 2OF mentioned. Since I take the same intuition as the starting point of the story I am going to tell, let me try to pinpoint it in a non-theoretical way here.

Second occurrence foci are generally previously mentioned, or, as I will say adopting the terminology of, among others, Schwarzschild (1999), Given. Ostensibly that is why they don't *need* to be accented. On the other hand, they *are* focussed (since they are associated with a focus sensitive particle), which requires some kind of prosodic prominence, here: stress, realized most significantly by lengthening. Thus the basic intuition.

The first and main challenge in formalizing this intuition is, as I will show in 3.1 below, that Givenness does not reliably tell 2OFi from ordinary foci. In particular, while all 2OFi are Given, not all Given foci are unaccented, or '2O'.

My suggestion will be that the crucial distinction is between foci whose *domain* is *maximal*, i.e. the entire sentence, and foci whose domain is smaller. A focus with a non-maximal domain will potentially be realized as a 2OF. What complicates matters a bit is that the distinction between foci with maximal v. non-maximal domains cuts across the Given/New distinction,

and that some foci have more than one domain; so clarifying the proposal requires a close look at focus representation and interpretation.

The second challenge is to explicate why the 1/2OF (or maximal/non-maximal domain F) distinction yields the prosodic consequences it does: Stress for all foci, pitch accents for all 1OFi, but for 2OF only if they precede a 1OF. Here, the account I will offer involves two steps.

First, perhaps obviously, **stress, rather than accent, is the basic realization of focus**: the metrical structure of a sentence will be constructed in such a way that focussed elements are metrically strong, i.e. receive phrase level or sentence level stress (I will formalize this more below) — a position independently advocated in Truckenbrodt (1995, 1999) (and, following him, Büring and Gutiérrez-Bravo (2001); Samek-Lodovici (2002), among others). Pitch accent assignment then proceeds 'mechanically', as it were, given the prosodic structure; it does not 'see' features like F(ocus), or any aspect of syntactic structure for that matter.

The second step is that **foci with a non-maximal domain are banned from bearing sentence-level stress** (and thus indirectly from bearing the NPA). So if the last metrically strong element in a sentence is a 2OF, the NPA will 'shift' to the left, leaving the 2OF stressed (lengthened), but unaccented. If in pre-nuclear position, the 2OF will receive a (non-nuclear) pitch accent, just like any other metrically strong element.

The intuition behind this can perhaps best be seen by considering two hierarchies:

- Focus Hierarchy:
  focus w/maximal domain > focus w/ smaller domain > non-focus

- Prominence Hierarchy:
  sentence level stress > phrase level stress > lower level/no stress

The net effect of the focus-to-prosody mapping is that these two hierarchies must be aligned, i.e. if an element A is higher on the prominence hierarchy than another element B, A must not be lower than B on the focus hierarchy, and *vice versa*.

Crucially, however, this effect will follow from my proposal without invoking these hierarchies at all. In fact, the distinction between 1OFi and 2OFi will not be encoded in the representation at all, other than in their domains, which are given to us independently. There is, I claim, no theoretically significant distinction between 1OFi and 2OFi, or any other two types

of foci such as Given and non-Given foci. Every focus comes with a domain, and that is all we need.

3 Predicting Second Occurrence Foci

3.1 Given–New Does Not Correlate With 2OF–1OF

The intuitive story told above suggested to reconstruct the notion of 2OF as 'focussed and Given', whereas ordinary or first occurrence foci (1OF) would be 'focussed and new'. In this section I will show why this is not a tenable move.

It is well known that Given elements can be focussed in the classical sense, pitch accent and all:

(2)   Who showed up last at John's party?
    a.   [Those German FRIENDS of John's]$_F$ (showed up last at his party).
    b.   JOHN$_F$ (showed up last at his party).

Sentence (2a), read as an answer to (2), shows that (2) is in principle sufficient to license deaccenting (more accurately: non-accenting) of *John*; we interpret this to mean that *John* is Given after uttering (2). (2b) then shows that despite being Given, *John* can be, and in fact has to be, accented if it is focussed. The same effect can be seen in (3):

(3)   Bob was completely drunk at John's party. — No, JOHN$_F$ was completely drunk at his party.

Note that *John* in (2b) and (3) is assumed to be focussed because it is the answer to the preceding *wh*-question, and the element that is corrected, respectively, not because it is associated with any focus sensitive particle. Such foci are usually referred to as *free* (as opposed to bound or associated) foci. But as (5) shows, associated foci can be Given, too:

(4)   John is having a party. But only JOHN$_F$ knows when and where.

I will return to the rationale behind such 'Given foci' in subsection 3.2 below. For now simply note that they can bear the nuclear pitch accent in the types of sentences we are looking at here:

(5)   (Many people only drank juice at John's party.) Even JOHN only
        drank juice at his party.

(6)   Our grad students only quote the faculty. — No, the FAculty only
        quote the faculty.

(7)   Whose students don't even quote Smith? — SMITH's students don't
        even quote Smith.

So in, say, (5), *juice* is the 2OF as before, and *John* is the '1OF', except that it
does not actually occur for the first time. Since 'first occurrence focus' thus
seems an inapt name, even in scare quotes, I will henceforth descriptively
use the term *primary focus* for the focus that bears the NPA. So what this
section has shown is that the difference between primary focus and 2OF can
not generally be reduced to the latter being focussed and Given, while the
former is focussed and non-Given. Likewise, while all 2OFi in our examples
are bound (but see subsection 6.1.1 below), this doesn't set them apart from
primary foci either, which can be bound as well.

3.2   The Domain Theory of Primacy

What does that leave us with? An interesting suggestion made in various
places in the literature is that determining if a focus will be realized as a
2OF has to do with the *domain* or *scope* of the focus.[3] Intuitively, the focus
whose domain or scope includes that of the other focus is the primary focus.
I will henceforth use the term *domain* (of a focus), rather than scope, to

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[3]This idea is most clearly articulated and even implemented in Jacobs (1991). In
Jacobs's system, if F_n's domain includes F_m's, n will be smaller than m, which in turn
will force the constituent containing F_m to be prosodically subordinated to that containing
F_n. Indeed, Jacobs's system employs many of the same ingredients as the one I present
here, including indexed foci and the idea that being a primary focus is, or at least can be,
a function of being a free focus. Jacobs (1991) does not discuss 2OFi, and indeed does
not at all discuss accenting, only metrical prominence. Yet, my proposal can be seen as a
direct extension of Jacob's.

Rooth (1996) seems to be the first to mention scope of the associating operator as a
determinant of primary/2OF status, but does not offer a full account of the phenomenon:
"[2]OF ... is apparently licensed by a special ... discourse and/or syntactic configuration.
[...] [I]n all of the examples, there is another competing focus ... with wider scope."
(p.214).

Scope, or more precisely: the question whether two foci belong to the same Chomskian
phase is also mentioned as a factor determining prosodic subordination in Ishihara (2005).

avoid confusion; the main idea can then be stated as follows:

> **Domain Theory of Primacy**
> Among two foci in a sentence, the primary focus is the focus whose domain contains the domain of the other.

But how do we diagnose the domain of a focus? It seems plausible for the case of Q/A-focus as well as correction and contrastive focus (i.e. all free foci) that their domain should be the entire sentence. I represent this as follows:

(8)   [JOHN$_{F1}$ showed up last at his party] $\sim_1 CC$

The notation is inspired by Rooth (1992), with indices added to the focus (for reasons that will become clear immediately). In a nutshell, by the semantics of $\sim$, we get a set of propositions of the form 'that x showed up last at John's party'. CC stands for a constant I call *ContextConnect*, which says that there must be a salient antecedent in the context whose meaning is an element of the set of propositions introduced by $\sim$.[4] In plain words, $\sim_1 CC$ requires that there be an expression denoting a proposition entailing that x showed up last at John's party in the context. This could be a sentence like *Frank showed up last at John's party*, or, by assumption, the question *Who showed up last at John's party*.[5]

The domain of a focus associated with a focus sensitive particle, on the other hand, will be smaller:[6]

(9)   [the FACULTY$_{F1}$ [only$_2$ quote the faculty$_{F2}$]]$\sim_1 CC$

I've coindexed the focus on the object and the focus sensitive particle *only* to indicate that the position of *only* demarcates the domain of the focus

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[4]$\sim CC$ is thus a thinly disguised version of the Givenness condition in Schwarzschild (1999); my reasons for implementing it like this will become clear below.

[5]The idea that free foci are associated with an inaudible root-level operator is of course not new, cf. Jacobs (1984, 1988, 1991/2), Krifka (1991/2) and von Stechow (1981) a.o.

[6]This is where we need indexed foci; otherwise we couldn't express that the second occurrence of *faculty* is not associated with the sentence level $\sim_1$. Rooth's original proposal does not index foci: an operator will automatically associate with any foci in its domain (unless there is another operator intervening; I omit details here). Explicit semantics for indexed foci are already available, however: Jacobs (1991); Krifka (1991/2) within a structured meanings framework, Kratzer (1991); Wold (1996) within a multidimensional framework.

associated with it. So we have a free focus F1, whose domain (marked by $\sim_1 CC$) is maximal, i.e. the whole sentence, and an associate focus F2, whose domain is VP. Since the former includes the latter, by the domain theory of primacy, F1 will be the primary focus.

So we have derived that a free focus will get primacy over an associated focus. It is less obvious how to handle examples like (5), repeated below with ornaments, which has two associated (and Given) foci. Here it seems that neither focus's domain properly contains the other's:

(10) (Many people only drank juice at John's party.)
      [[Even$_1$ JOHN$_{F1}$] [only$_2$ drank juice$_{F2}$ at his party]].

The c-command domain of *even* is the subject DP, and the c-command domain of *only* is VP. If these are the domains of F1 and F2, respectively, neither contains the other, and it is unclear why F1 gets prosodic primacy over F2.[7]

I propose that, in addition to being an associated foci, F1 is also a free, sentence-wide focus. Generally, primary foci are always free foci. On this view, a complete representation of (10) will look as in (11):[8]

(11) [[even$_1$ JOHN$_{F1,3}$] [only$_2$ drank juice$_{F2}$ at his party]] $\sim_3 CC$

Of course we need to explain why F1 doubles as the free sentence focus, rather than F2; otherwise we haven't really explained why the nuclear pitch accent

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[7]One might argue that the *semantic scope* of *even* in (10) is in fact the entire sentence. If we understand the domain of a focus to be the semantic scope of the operator it is associated with, the domain of F1 does include that of F2 and the primacy of F1 over F2 is explained. But as (i) shows, this won't work in general:

(i) (We all agreed that Sam's mother loves Ernie.) Only$_1$ John$_{F1}$ suggested that Sam's mother also$_2$ loves Sue$_{F2}$. And only$_1$ John$_{F1}$ suggested that Sam's mother also$_3$ loves SAM$_{F3}$.

The nuclear accent is on the final *Sam*. But obviously, the domain of the operator *Sam* is associated with, *also*, is much smaller than, and properly contained in, the semantic scope of *only*, which is the whole sentence; and this holds regardless of whether you consider the syntactic or semantic scope of *also*.

[8]Jacobs (1991) uses structures that express the very same intuition, cf. e.g. his structures S2–S4 and discussion thereof (p.4f). He does not, however, discuss what determines the choice of free foci in that paper (i.e. try to answer the question we are asking right below), and indeed some of his examples, e.g. S4 (p.5) suggest that he does not assume subordinated, non-free foci to be accentless in general.

falls on *John*, rather than *juice*. Note that *John* is Given, so that can't be it. Note, too, however, that *John* would be accented in this sentence even if we drop all focus sensitive particles:

(12)   (Many people only drank juice at John's party. For example,) JOHN drank juice at his party.

So we have reduced one question — why certain Given associated foci double as free foci — to another: why certain Given elements are free foci. And fortunately, we can rely on a rich body of literature to address that latter question. I will follow the story in Schwarzschild (1999) to explain the selection of a Given focus among a set of Given items, which goes like this: it is not Given in the contexts in (10) and (12) that (even) John (only) drank juice at his party. Nor is it Given that (even) John drank (only) something at the party. What *is* Given is that someone drank (only) juice at John's party. Thus, marking F1 as sentence focus is the cheapest way of making the whole sentence Given.

The semantics of ContextConnect sketched above derive this: When coindexed with *John*, as in (11), it requires that there be a salient antecedent expressing a proposition of the form 'that (even) x drank (only) juice at John's party' in the context, which there is in (10). If we coindexed CC with *juice*, on the other hand, it should be the case that a proposition of the form 'that (even) John (only) drank x at John's party' is around in the context, which isn't the case. If you will, ContextConnect selects a focus at the sentence level with an eye on contrast with previous utterances, regardless of Givenness at the word level.[9]

Explicating the notion of free focus in terms of Givenness derives another result: Any associated focus that is not Given will automatically have to be a free focus. Put differently, non-Given foci will never be realized as 2OFi. For example, the following is not acceptable without an accent on *grad students*:

(13)   (Who only quotes the faculty? — Let's see,) the FACULTY only quote the GRAD students.

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[9]We also have to explain why CC can't be coindexed with *both* elements, *John* and *juice*, which would also meet the conditions above, but yield the wrong accent pattern with a pitch accent on *juice*. Any standard story about excluding 'over-focussing' will do here, for example AVOID F as in Schwarzschild (1999).

We can note immediately that 'x only quote the grad students' is not Given; therefore, additional F-marking is required to satisfy ContextConnect. The correct representation is (14):

(14)   [the faculty$_{F1}$ only$_2$ quote the grad students$_{F1,F2}$]$\sim_1 CC$

Now both *faculty* and *grad students* are free foci, and the NPA goes to the final one (the last fact will follow once I have explicated my assumptions about focus realization in section 4 below). Crucially, all of this follows without representing Givenness and Focus separately. Any non-Given element will end up being a free focus, and thus won't be realized as a 2OF.

To sum up, free foci are foci with a *maximal domain*: the whole sentence. Formally, free foci are associated with the root level operator $\sim C(ontext)C(onnect)$. ContextConnect requires that the sentence as a whole be contrastive with some previous utterance. A free focus will win primacy over an associated focus, whose domain is non-maximal. If a sentence has two associated foci, the primary one will be the one that is also a free focus.

4   Deriving the Domain Theory of Primacy

I will now show how the Domain Theory of Primacy can be derived from a general theory of focus realization. Consider again our perennial example:

(15)   Many people only drank water. Even John only drank water.

The representation for the second sentence I suggested is repeated in (16):

(16)   [even$_1$ John$_{F1,F2}$ only$_3$ drank water$_{F3}$]$\sim_2 CC$

Let us now state the principles according to which metrical structure is built. Most important for our purposes is the principle which ensures metrical prominence for focussed elements, which is given in (17):

(17)   FocusProminence (FP):
        If P is the domain of a focus sensitive operator O, the most prominent element in P is a focus of O.

The name FocusProminence is borrowed from Truckenbrodt (1995), who introduces a similar principle. I use '(focus sensitive) operator' as a cover term

for focus sensitive particles and $\sim CC$. To be on the safe side, I also give a formal definition of the notion of domain:

(18)   Domain of a Focus/an Operator:
        P is the domain of a focus F and the domain of its operator O iff P is the smallest constituent containing F and O.

Let us apply this to (16). The domain of *only* is VP, which contains precisely one focus, *water*, which, by (17) wants to be maximally prominent in VP.[10] This is achieved by assigning phrase level prominence to it, making it the metrically strongest element in VP:

(19)   only$_1$ drank water$_{F1}$

The domain of *even* is the subject DP, whose sole focus is *John*. By giving *John* phrase level stress, (17) is met for the subject domain.[11] Crucially, *John* is also the focus of $\sim_2 CC$, whose domain is the entire clause. By (17) *John* needs to be maximally prominent in it, in particular more prominent than *water*, which means it needs to bear sentence level (nuclear) stress. The following structure results:

(20)   [Even John$_{F2}$ only$_1$ drank water$_{F1}$]$\sim_2 CC$

The actual accent pattern is now derived by the following simple stress-to-accent rule:

(21)   Stress-to-Accent-Rule:
        Assign a pitch accent to the strongest/nuclear stress and to every metrically strong syllable preceding it.

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[10]This idea is aired for example in Rooth (1996); to the best of my knowledge, it has never been elaborated on: "[W]ithin the scope of a focus interpretation operator, the corresponding F os the most metrically prominent [sic] element. Depending on other factors, this prominent element might or might not surface with a pitch accent. [...] At present, we are not in a position to say why this is so; it might be the result of the mapping between syntax and phonology, the presence of pitch accents being sensitive to ... factors such as discourse anaphoricity." (p.219)

[11]A legitimate question is whether *John*, even without phrasal stress, would be maximally prominent in the domain of *even*. I will return to this question in 6.1.3 below. Since *John* is also the focus of $\sim CC$, nothing hinges on this in the present case.

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        PA
        |
        *
        *                              *
(22)    [Even John_{F2} only_1 drank water_{F1}]~_2 CC
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How does this framework handle sentences with more than one free focus? Consider first an example without focus sensitive particles:

(23)   Frederick the Great spoke French to his family, and German to his horses.

Concentrating on the last bit, both *German* and *(to) his horses* are free foci:

(24)   [... German_{F1} to his horses_{F1}]~_1 CC

According to (17), either one of them could legitimately become most prominent in the domain of ~_1 CC. As a matter of fact, the last one has to be. Why is that?

I assume, following much work in prosodic phonology, that sentence level prominence, *nuclear stress* (NS), in metrical structure marks the head of a prosodic constituent, the *intonational phrase* (IP). In the unmarked case, the head of IP wants to be aligned with the right edge of IP, as stated in the following constraint (cf. Truckenbrodt (1995)):

(25)   IP-Head-Right
        The head of the intonational phrase is rightmost stress (at the next lower level) within IP.

Note that IP-Head-Right is violated in 2OF structures such as (20)/(22) above, where the head of IP (sentence level stress) is the penultimate phrasal level stress. We interpret this to mean that FocusProminence (17) is a stronger constraint than (25) (in fact, FP is inviolable, as we will see below). (25) will 'push' the NS to the right where there is a choice, i.e. when there are two elements that would satisfy FP if made maximally prominent, as in (24).

IP-Head-Right also provides the missing piece in our explanation of why non-Given elements are never realized as 2OFi. Consider, for example, (26), a variant of our earlier (13):

(26)   (Many people only drank non-alcoholic drinks at John's party.) Even JOHN only drank SOY milk.

It is impossible to leave *soy milk* unaccented here. If you do, you have to accommodate that *soy milk* has been discussed before, or is the only non-alcoholic beverage there is.

I argued above that the correct representation for examples like this is (27):

(27)   [even$_1$ John$_{F1,F2}$ only$_3$ drank soy milk$_{F2,F3}$]$\sim_2$ CC

Crucially, both *John* and *soy milk* are free foci in addition to being associated foci. This is because neither 'even John only drank y' nor 'even x only drank soy milk' are Given; but '(even) x (only) drank y' is, since it's Given that people only drank non-alcoholic beverages. Among these free foci, the rightmost one will be picked as the head of IP, in accordance with (25), yielding the structure (28a), rather than (28b):

(28)   a.
```
                              PA
            PA                 |
             |                 *
             *                 *
      (even John only drank soy milk)IP
```
```
            PA
             |
             *
             *                      *
      b. #(even John only drank soy milk)IP
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Note again that (28b) meets FP, since the maximally prominent element in the sentence *is* a focus of $\sim_2$ CC, so IP-Head-Right is the crucial constraint to rule it out.

To sum up this section, we have derived the Domain Theory of Primacy from three principles regarding the syntax-to-prosody mapping: FocusProminence, the Stress-to-Accent Rule, and IP-Head-Right. It may seem no bargain to trade in one principle for three, but these three principles are in fact needed to derive the realization of regular focus patterns anyway, as I have shown in earlier work. So effectively we have gotten the Domain Theory of Primacy for free.

5 Additional Support for the Domain Theory of Primacy

5.1 Crossing Dependencies Yield Ineffability

The account we have given here makes a prediction not made by any previous account: it should be impossible to have a primary focus occur within a 2OF's domain. Strikingly, this prediction is born out, as the following example, which Roger Schwarzschild (p.c.) brought up a couple of years ago, shows:

(29)   What did John only eat in PAris?
   a. #John only ate crêpes in PAris.
   b. #John only ate CRÊpes in Paris.

Neither (29a) nor (29b) is appropriate to answer the question in (29). (29a) seems to answer the wrong question, whereas (29b) wrongly asserts that John eats nothing other than crêpes while in Paris. Schwarzschild used this example to show that association with focus and question/answer focus both must be realized. If their demands clash, as in (29), where the answer focus should be on *crêpes*, but the associated focus must be *Paris*, the pattern becomes ineffable.

In the context of our present discussion, however, we should ask: Why can't *Paris* be a 2OF? It is Given (i.e. has a non-maximal domain), and it sits after the focus with the maximal domain. So why not accent *crêpes* and merely stress *Paris*?

The present proposal provides a straightforward answer: The dependencies between the two foci and their operators cross. Consider the representation in (30):

(30)   [John only$_1$ ate crêpes$_{F2}$ in Paris$_{F1}$]$\sim_2 CC$

By FP, the most prominent element in the domain of *only*, VP, must be a focus of *only*, which means: F1, *Paris*. But, also by FP, the most prominent element in the domain of $\sim_2 CC$ must be a focus indexed 2, i.e. F2, *crêpes*. But F2 is within the domain of F1, which means it can't possibly be less prominent than F2 within *only*'s domain, but more prominent than F2 within the maximal domain.

If this is the correct explanation, one crucial property of all previous examples was that the free focus preceded not just the associated focus, but

the entire *domain* of the associated focus (most easily seen from the fact that it preceded the focus sensitive particle itself). And indeed, to answer (29), we can change the linear order to get the same effect:[12]

(31)   a.   CRÊpes, John only eats in Paris.
       b.   It's CRÊpes that John only eats in Paris.

This state of affairs provides strong evidence for our treatment of 2OFi. Note that, for example, a theory that would exclusively refer to the Given v. New focus would not seem to be able to make this prediction.

5.2   Semi-Crossing Dependencies

The trouble with Paris-type sentences like (29) disappears the moment we allow the associated focus to be a free focus in addition. Consider the following advice from Mr Manners:

(32)   (One should only wear hats outside, just like) one should only wear
       SWEAT pants at HOME.

The last sentence in (32) is fine with accents on *sweat pants* and (the nuclear accent on) *at home*. Note that the configuration is almost the same as in our original (29), except that in (32) the PP, in addition to being associated with *only*, is also a free, contrastive, focus:

(33)   [one should only$_2$ wear sweat pants$_{F1}$ at home$_{F1,2}$] $\sim_1$ CC

We can makes sense of this pattern: *at home* is a focus associated with *only*, and it is most prominent within *only*'s domain, the VP. That's as it should be. The root level $\sim_1$ has two foci associated with it, *sweat pants* and *at home*, and one of them is the most prominent in the root domain. That's as it should be, too; we have already seen that if an operator is associated with

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[12]As Lawrence Cheung (p.c.) pointed out to me, the question can also be answered by a simple *CRÊpes.* This suggests that the term answer is derived from a structure akin to (31a), as suggested in Merchant (2004). It also suggests that 2OFi can be elided. I suspect that the generalization is that a focus can be elided only if all operators it associates with are elided, too (virtually the same conclusion is reached in Han and Romero (2004), note 15 on p.199), but I don't have explored that systematically yet.

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two foci, the linearly last focus with maximal domain ends up being nuclear, and this is what happens here, too.[13]

This concludes the presentation of my proposal, and thus the main part of this paper. The following, rather extensive section discusses a number of open issues, questions, and suggestions for further research. A summary of the main points of the paper can be found in section 7 below.

6 Open Issues

6.1 Directions for Further Research

In this section I will discuss some additional data and questions that point towards certain extensions and modifications of the theory outlined so far. I feel that most of these issues can be resolved only after more thorough, preferably experimental investigation of the data, which I hope to carry out, or be part of, in the future.

6.1.1 Are There Secondary Free Foci?

In this paper I have only discussed examples in which the 2OF was a bound focus. An interesting question is whether there could be 2OFi that would be licensed by something other than a focus sensitive particle. On the face of it, we would expect the answer to be 'no', since the only other focus sensitive operator we have been considering is the root level $\sim CC$. One could, however, expect to find sub-root level discourse related operators, e.g. things that license local contrasts. Here's the kind of case I have in mind:

(34)   a.   OK, so I'll press the green button when the red button starts blinking.
       b.   No, you press the BLUE button when the red button starts blinking.

The normal prominence pattern in an [A N] combination like the one on (34a) is *green BUTton*, with a primary stress/accent on the N (and quite likely a

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[13]It is not clear to me what triggers the rather strong accent on the other free focus *sweat pants*, which seems to correspond to an intermediate phrase head; but see subsection 6.1.4 below for some pertinent remarks.

secondary on the A). In a sentence like (34a), however, the second occurrence of *button* is deaccented due to the previous mentioning of the word *button* (in addition, the first occurrence of *button* can be deaccented too, in anticipation, as it were; I have nothing to say about this 'kataphoric deaccenting' here).

Now, in sentence (34b), neither *red* nor *button* can be accented; the nuclear accent must be on *blue*; this, again, is as expected. My intuition, however, is, that there is still a 'marked' prominence pattern within the deaccented DP *red button* in (34b), that is, the A is more prominent than the N. This of course needs experimental confirmation; it could be that I just 'hear' this because I am aware of the semantic contrast. Supposing for the moment, though, that there is something acoustically real to the sense that *red* in B is more prominent than *button*, it would seem very tempting to analyze this as a second occurrence *free* (i.e. contrastive) focus, along the lines of (35) (this is very similar to the treatment Rooth (1992) offers for his *American farmer/Canadian farmer* examples):

(35)   (No.) [You press the BLUE_{F1} button when [the red_{F2} button]$\sim_2 CC$ starts blinking.]$\sim_1 CC$

I haven't formally defined the $\sim CC$ operator, but assume that $\sim_2 CC$ here requires that there be a salient antecedent of the form 'X button' — which there is, of course, in the shape of the DP *blue button* in the same clause. Prosodically, $\sim_2 CC$ would require *red* to be more prominent than *the. . . button*, inducing a phrase level stress, while $\sim_1 CC$ makes sure that *blue* must be maximally prominent in the entire sentence, which relegates *red* to being a 2OF.

Without pre-judging the question whether such free second occurrence foci exist, I want to point to a number of questions their existence *would* raise for the theory of focus developed here. I have implicitly assumed that there has to be a $\sim CC$ at the root of every sentence, accounting for the standard focussing of non-Given constituents. Obviously, F_2 in (35) is not required to license the root level $\sim_1 CC$, since *when the red button starts blinking* is Given by (34a) in the context. F_2's existence is only justified by $\sim_2 CC$, but what in turn justifies the latter? I hypothesize that additional, non-root instances of $\sim CC$ are generally optional. Furthermore, it seems as though additional F-marks associated with such subordinated $\sim CC$ do not violate the minimization requirement on foci (AVOID F or its counter-parts). That is, while we have to use the minimum number of foci for each $\sim CC$,

additional $\sim CC$s and the foci they bring along with them are 'cost free'.

6.1.2 Are Postnuclear 2OFi Always More Prominent Than Non-Foci?

Evidence for the prosodically prominent status of 2OFi comes from two types of data. 'Leaners' and weak pronouns, which I'll give examples of in the next subsection, and postnuclear 'stress shift', as in the following kind of example from Beaver et al. (2004), to which I added the pertinent annotations here:

(36) a. Both Sid and his accomplices should have been named in this morning's court session.
      b. [But the defendant$_{F2}$ only$_1$ named Sid$_{F1,2}$ in court today.]$\sim_2 CC$
      c. [Even$_3$ the state prosecutor$_{F3,2}$ only$_1$ named Sid$_{F1}$ in court today.]$\sim_2$ CC

(37) a. Defense and Prosecution had agreed to implicate Sid both in court and on television.
      b. [Still, the defense attorney$_{F2}$ only$_1$ named Sid in court$_{F1,2}$ today.]$\sim_2$ CC
      c. [Even$_3$ the state prosecutor$_{F3,2}$ only$_1$ named Sid in court$_{F1}$ today.]$\sim_2$ CC

Intuitively, *Sid* in (36c) is prosodically stronger than 'normal', and in particular stronger than *court* (and *today*). And *vice versa*, *court* seems stronger than 'normal', and in particular than *Sid* in (37c). And indeed, Beaver et al. (2004) and Jaeger (2004) found that the 2OF *Sid* in (36c) is more prominent than un-focussed *Sid* in (37c); the same holds for *court* in (37c) v. (36c).

What has not been investigated is whether the 2OFi are stronger than their counter-parts in ordinary postnuclear position, say in (38):

(38) (The defense attorney wanted to name Sid in this morning's court session.) Instead, the state PROsecutor named Sid in court (today).

This question is of particular interest for *court*, for the following reason: Consider two conceivable hypotheses about postnuclear stretches without 2OFi such as in (38). One, that all postnuclear stressed syllables have the same (low) degree of prominence, or two, that relative phrasal prominence is preserved (without accents of course) in postnuclear position. If one is correct, we would expect both *Sid* in (36c) and *court* in (37c) to be stronger than

their counter-parts in (38), since only then would they meet FocusPromi-nence (i.e. be the strongest in the domain of *only*). If two is correct, we would expect *court* to be stronger than *Sid* in (38) to begin with, since *court* is the nuclear stress position, hence by hypothesis maximally prominent, in a wide focus rendering of this sentence as in (39):

(39) (The Jones murder had raised a lot of suspicions and allegations be-hind the scenes and in the media.) Finally, the defense attorney named the driver in COURT today.

If so, there would be no need to put additional weight on *court* in (37c), since already neutrally it would be stronger than *Sid* and *today*, even if postnu-clear. *Sid* in (36c), on the other hand, would have to be more prominent than in (38) (and/or *court* less prominent) in order to meet FocusProminence.

6.1.3 Are 2OFi Always More Prominent Than Other Non-Nuclear Material?

This question is related to, but different from, the one raised in the previous subsection. What we're asking here is whether a 2OF that is the only element in its domain is metrically stronger than it would be if it weren't a 2OF at all. This question can be asked for pre-nuclear 2OFi as in (40):

(40) a. Only Peter saw the answer. So only Peter can TELL us.
      b. Only Peter saw the answer.
          (i)   But Peter can't TELL us.
          (ii) But Peter is an IDiot.
          (iii) But Peter didn't underSTAND it.

Is *Peter* in the second sentence in (40a) more prominent than in any of (40bi)–(40biii)?

    The question can also be asked with respect to post-nuclear 2OFi as in (41) and (42):

(41) a. (Our dogs eat fish. — I know the feeling:) My SNAKE eats fish.
      b. (Our dogs eat only FISH. — I know the feeling:) My SNAKE eats only fish.

(42) a. (Everybody drank water.) Even FRANK drank water.
      b. (Everybody drank only water.) Even FRANK drank only water.

Are 2OFi *fish* and *water* in the (41b) and (42b) stronger than in (41a) and (41b)?

We already know the answer in some cases: So called 'leaners' and inherently weak pronouns like *'m, 'er* and *it* have to be elevated to full, stressable pronouns *him, her*, and in the case of *it* for most speakers be replaced altogether (for some speakers, stressed *it* is acceptable):

(43) a. (Everybody likes Kim.) Even the BOSS likeser/likesm.

   b. (Most people only like Kim.) Even the BOSS only $\left\{ \begin{array}{c} \text{*likeser/*likesm} \\ \text{likes her/him} \end{array} \right\}$.

(44) a. (Everybody drank water.) Even FRANK drankit.

   b. (Everybody drank only water.) Even FRANK only drank water/??*it.

It should be noted for these cases, though, that even at the word stress level, the leaners and weak pronouns are weaker than the element they lean on (*likes/drank*), in violation of FP. The same can presumably be said about the following variant of (44b), where *only* itself is stronger than *it* (note that by our definition of domain of a focus/operator in (18), *only* is part of its own domain):

(45)   (Everybody drank only water.) Even FRANK drank only water/??*it.

In (41a) and (42a), on the other hand, *fish* and *water* have word-level stress anyway, so it is not clear why they would need to be 'boosted' in (41b) and (42b). Similarly for *Peter* in (40) above. So if it turned out that even these full nouns *are* more prominent when they are 2OF than when they are not, we should ask why (Does focus need a 'absolute minimum' level of stress? Is *only* itself as strong as the nouns?).

6.1.4   Should FocusProminence Be Defined in Terms of *Prosodic* Domains?

We saw in section 5.2 above that the notion domain of a focus is crucial to explain when 2OF is (not) possible. As a reminder, consider (29), repeated here:

(46)   (What does John only eat in Paris? —) # He only eats crêpes in Paris.

The problem, as we diagnosed it, was that the domain of the associated focus, VP, also contains a free focus. FocusProminence imposes irreconcilable demands on such a structure: the associated focus must be maximally prominent in VP, while the free focus, which is also within VP, must be maximally prominent in the whole clause. In other words, FocusProminence has the following generalization as a corollary:[14]

(47)   The domain of an operator O cannot contain a focus which is the focus of a higher operator O* but not a focus of O itself.

An intriguing question to ask is whether the domain referenced here is the syntactic domain of O — the smallest syntactic constituent containing O and its foci — or the *prosodic* domain of O — the smallest prosodic constituent containing O and its foci; I will call these the syntactic position and the prosodic position (on domains) in this subsection.

An argument in favor of the prosodic position comes from examples like (48), from Taglicht (1984), which Roger Schwarzschild (p.c.) pointed out to me as a challenge to (47):

(48)   (She scrubbed the front steps, but) she only SWEPT the KITCHen.

The NPA in this sentence falls on *kitchen*; the focus of *only*, *swept*, is less prominent than *kitchen*. But *kitchen* is contained within the VP, hence within the syntactic domain of *only*, in violation of FP/(47) according to the syntactic position.

Prosodically, however, there is a clear phrase break between *swept* and *kitchen*, which, following standard English ToBI conventions, I will take to be an *intermediate phrase* (ip) boundary (not to be confused with the higher IP, which is the intonational phrase). The full structure of this example is thus as in (49):

$$
\begin{array}{l}
(\qquad\qquad\qquad\qquad\quad * \qquad\quad)_{\text{IP}}\\
(\qquad\qquad * \qquad)(\qquad * \qquad\quad)_{\text{ip}}
\end{array}
$$

(49)   [she only$_1$ swept$_{\text{F1,2}}$ the kitchen$_{\text{F2}}$]$\sim_2$CC

Within the first ip, *swept* is most prominent (it is the head of that ip/bears the nuclear pitch accent within that ip), and since that ip is the smallest prosodic domain containing *only* and its focus, FP/(47) is met — for the

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[14]The 'but...' clause reminds us of examples like (33); an operator O* is higher than O iff O*'s domain contains O.

prosodic position. The smallest prosodic constituent containing the free focus *kitchen* and its operator $\sim CC$ is the IP, within which *kitchen* is maximally prominent, again in compliance with FP/(47), understood prosodically.

The prosodic position thus not only preserves generalization (47), but even explains why (48) has the 'split' prosodic pattern it does. And it doesn't undermine the original account of the ineffability of (46), because there the higher focus linearly intervenes between *only* and its focus, blocking all hope of forming a prosodic constituent containing *only* and its focus alone.

Now, a proponent of the syntactic position may claim that I simply misdiagnosed the syntactic domain of *only* in (48), which may well not be VP, but just V. If so, (47) holds without any recourse to prosodic domains, simply because *swept* is maximally prominent in the syntactic constituent *only swept*.

This is a good reply, but I doubt that it addresses the problem thoroughly. Consider (50):

(50)   (Philippe will buy only FRENCH cheese. — Same here:) I only buy GERman BEER.

This sentence poses the exact same challenge to the syntactic position as (48): *German* is the focus of *only* (note that the sentence doesn't claim that the speaker buys nothing other than beer), but the free focus *beer* is the most prominent element in the syntactic domain of *only*, VP. On the prosodic definition of domain, this sentence is not problematic, because it has the same indicative ip break between the two foci:

(51)
```
(                             *  )IP
(                    *     )(  *  )ip
     I only buy German beer
```

German is maximally prominent in the first ip, and *beer* is, in the root IP. Again, a rather marked prosody comes to the rescue. Our proponent of the syntactic position would have to claim that *only buy German* forms a syntactic constituent — a daring proposition.

In the light of examples like these, I am leaning towards a prosodic definition of domains. It also seems to me that, since the principle that refers to these domains, FP, is itself a restriction on prosodic structures, this constitutes a rather natural interpretation of the domain notion.

I want to note in closing this subsection, though, that there are some examples in which a syntactic notion of domain seems more adequate. Consider (52):

(52)   The boys even knew WHO was there and got arrested.

The second VP, *got arrested*, could be coordinated with the matrix VP (he knew and got arrested) or the embedded one (they were there and got arrested), henceforth the matrix/embedded reading of this sentence. Now it seems to me that putting a pitch accent on, say, *arrested* disambiguates the sentence towards the matrix reading:[15]

(53)   The boys even knew WHO was there and got arRESted.

Indeed, replacing *got* with *was*, thereby forcing the embedded reading, seems quite odd to me:

(54)???The boys even knew WHO was there and was ARRESTED.

This pattern is expected under the syntactic view, since *arrested* clearly is in the syntactic domain of *even* on the embedded reading, but it is also more prominent than *even*'s focus, *who*, thus violating FP/(47).

On the prosodic view, either reading should be fine as long as there is a prosodic domain containing *even* and *who*, but excluding *arrested*, schematized in (55):

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[15]In Büring and Hartmann (1995) we observed a similar effect for the German sentence in (i), but couldn't offer an explanation for it:

(i)   Nur Spanish zu sprechen ist uns leicht gefallen.
       only Spanish to speak   is   us   easy   fallen

This sentence can either mean that it was easy for us to only speak Spanish (i.e. not to speak German), or that the only easy thing for us to do was to speak Spanish (we spoke German, too, but that was harder). In other words, the particle *nur*, 'only', can take scope either over the entire clause or over the embedded infinitival clause only. But the sentence can be disambiguated by intonation. If in addition to accenting *Spanisch* we put an accent on the matrix VP, say on *leicht*, 'easy', only the narrow scope reading for the particle is available. If *Spanisch* is the final accent in the sentence, the particle can take sentence wide scope. This again follows under the syntactic view. I also believe that the narrow scope reading involves an intermediate phrase break at the end of the scope of *nur*, marked by a boundary tone. This would be predicted too, but I haven't investigated the data in detail yet.

$$\begin{array}{ccc} & (&) \\ (&)(&) \end{array}$$

(55)   the boys even know who was there and got arrested

This seems in principle possible and indeed the preferred way to phrase (53) on the matrix reading. But the prosodic account — in contradistinction to the syntactic one — has no way of predicting that (55) can't also have the embedded reading. So at least, additional principles blocking this phrasing on the embedded reading, are required on the prosodic view, but not on the syntactic one. But currently, little is known about the principles that delimit the class of possible prosodic structures for a given syntactic structure (but see Taglicht (1998)). Therefore, I leave the ultimate decision between the syntactic and the prosodic view for further research.

6.2   A Problem

In the previous subsection I have addressed some data that, after more careful investigation, might prompt us to develop and flesh out the theory sketched in the main part of this paper in various directions. In this section I will address a set of data that directly contradicts the theory developed above. While I will indicate some possible directions to look in for a solution, I do not have one to offer. In addition, many of the data needed to demarcate the problem precisely seem at present very hard to assess, which is why I include this subsection under the heading Open Issues.

Rooth (1992) discusses the example in (56):

(56)   People who grow rice only EAT rice.

On the most natural reading of this sentence, the focus of *only* is *rice*, yet there is no pitch accent on *rice* at all. Tancredi (2005) shows convincingly that *rice* in (56) has the hallmarks of a 2OF. But it seems, then, that this sentence displays exactly the abstract configuration incriminated in (47) in the previous subsection: The free focus *eat* occurs in the domain of *only*, and hence the associated focus, *rice*, is not maximally prominent within that domain.

    The problem arises under either the syntactic or the prosodic view of domains, and (56) is not an isolated example, as my concoctions (57a) and (57b) show:

(57)   a.   (I only have a credit card. — That's quite alright,) we only acCEPT credit cards.

        b.   (I grow organic vegetables, and) my neighbors only feed their COWS organic vegetables.

What is the difference between these sentences and the Paris-example (29)? The original rice-sentence (56) didn't have a particle in the antecedent, but this is changed in (57a). The original rice-sentence had the primary focus on the verb, where the Paris-sentence had it on the direct object, but this is changed in (57b). So none of these can explain the difference between (29) and the acceptable sentences in (57).

On the other hand, it is also easy to replicate the ineffability of the *Paris* sentence with other examples; the answer in (58a) strikes me as incoherent to the same extent as the original *Paris* sentence, and I can't read (58b) as anything but an indecent offer, even though it should have a perfectly innocent reading if *you* could associate with *only* in the way *rice* can in (56) above:

(58)   a.   (I hear you even wrote books about SILENCE? —) # No, but I even wrote an ARTICLE about silence.

        b.   I think you're more intelligent than everybody else, but that doesn't mean I only want to TALK to you.

I also think that the good examples in (56) and (57) become considerably worse when used in a question context:

(59)   a.   What do you do only with rice? — # I only EAT rice.

        b.   What do you only do with credit cards? — # We only accept credit cards.

        c.   Who do you only feed organic food to? — # I only feed my COWS organic food.

Granted, the questions in (59) themselves sounds rather awkward, and maybe that its what makes the whole sequence odd. I believe, however, that the same contrast is found in (60), where the question in (60b) sounds rather natural to me:

(60)   a.   People who vacation in Santa Monica only SHOP in Santa Monica.

        b.   What do you only do in Santa Monica? — # I only SHOP in

Santa Monica.

It appears then, that this type of sentence is indeed bad if we provide a context such as a question (as in (59) and (60b)) or a correction (as in (58a)), which unambiguously requires narrow focus on the accented constituent. The good examples (56), (57) and (60a), on the other hand, do not control focus as rigorously (they are essentially narrative sequences). In particular, one could plausibly argue that the focus itself is broader than just the accented constituent, e.g. on VP (with the final object deaccented). The structures for (56) and (57) would thus look, to first approximation, as in (61):

(61) a. $\sim_1 CC$ [[$only_2$ EATS $rice_{F2}$]$_{F1}$]
      b. $\sim_1 CC$ [we [$only_2$ [ACCEPT credit $cards_{F2}$]$_{F1}$]
      c. $\sim_1 CC$ [my $neighbors_{F1}$ [$only_2$ feed their COWS organic $vegetables_{F2}$]$_{F1}$]

Of course, even if these representations could be further motivated, they still wouldn't explain why these structures are acceptable, and pronounced as they are, and I haven't found a satisfying way to flesh this out further.

To figure out what exactly goes on in these examples, it should be instructive to study examples like (58b), which do not have a question or correction set-up, yet seem clearly bad. One factor seems to be the distance between *only* and its focus, which is rather big, and contains a number of unfocussed items, in (58b), but not in (56) and its ilk. Indeed I found that speakers' judgements on the following sentences seems to get progressively worse:

(62) a. People who vacation in Westwood only DINE in Westwood.
      b. ??People who vacation in Santa Monica only spend MONEY in Santa Monica.
      c.#?People who vacation in Beverly Hills only eat DINNER in Beverly Hills.

Most speakers accept (62a) without hesitation, in which only the free focus intervenes between *only* and its focus. (62b) is liked less than (62a), because a verb and its object intervene, but is still judged more acceptable than (62c), which for most speakers can only mean that that those people don't eat anything other than dinner in Beverly Hills (the reading of interest is one where they eat dinner in Beverly Hills only). Presumably the difference is that while (62b) and (62c) both have V and DP intervene between *only* and its focus, the verb+DP combination in (62b) is semantically much more

idiomatic than that in (62c); that is to say, it seems much less natural to contrast spending money with spending other things (time?) than it is to contrast eating dinner with eating other meals.

I hesitate to draw firm conclusions from this, though, because I found that speakers differ widely in where they draw the line, with some speakers accepting virtually all of the examples in this section, and others wholesale rejecting all but the most basic cases like (56) and (57a). Hopefully, once we have firmer generalizations, we will be able to integrate these unexpected contrasts into our theory of 2OF.

7   Conclusion

In this paper I have offered a novel theory of focus realization and, in particular, second occurrence focus. The theory takes seriously a number of recent findings from experimental studies on the topic, and offers a treatment — the first to the best of my knowledge — that can account for all of the cases discussed in the literature on 2OF.

I have shown that the domain of a focus, rather than its status as Given v. new, draws the correct line between 'normal' foci and 2OFi. This means that we do not need to represent two orthogonal dimensions of information structure, say F(ocus) and G(ivenness) in the grammar in order to capture 2OFi. A unified account along the lines of Schwarzschild (1999) will do, once we incorporate the notion of foci with non-maximal domains, along the lines of Jacobs (1991) and Rooth (1992) among others.

The different prosodic realizations of primary foci and 2OFi, as well as of 2OFi in pre- v. post-nuclear position has been shown to follow from a very simple and general theory of focus realization that makes crucial use of the notion of prominence within a domain. In this, I followed the seminal account of Truckenbrodt (1999) as well as my own earlier work.

I have also argued that this particular domain/prominence based account derives a number of hitherto unnoticed or unexplained facts having to do with ineffable sentences as well as particular prosodic grouping patterns. While many details remain to be filled in (some of which I pointed at in subsection 6.1), and at least one recalcitrant problem haunts the approach (subsection 6.2), I believe the account as presented is successful enough to merit further exploration.

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