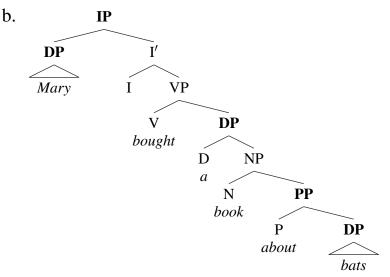
#### Focus projection, givenness, second occurrence focus

A more systematic look at focus projection (Selkirk 1996), givenness (Schwarzschild 1999), and second occurrence focus (Büring 2008).

# 1 Focus projection

- (1) a. MARY bought a book about bats.
  - b. Mary bought a book about BATS.
- (2) a. [ [Mary] [bought [a book [about bats]]]]



- (3) a. Who bought a book about bats?
  - b.  $[MARY]_{FOC}$  bought a book about bats.
- (4) a. What did Mary buy a book about?
  - b. Mary bought a book about [BATS]<sub>FOC</sub>.
- (5) a. What kind of book did Mary buy?
  - b. Mary bought a book [about BATS]<sub>FOC</sub>.
- (6) a. What did Mary buy?
  - b. Mary bought [a book about BATS]<sub>FOC</sub>.
- (7) a. What did Mary do?
  - b. Mary [bought a book about BATS] $_{FOC}$ .
- (8) a. To be appropriate, the constituent corresponding to the *wh*-phrase should be focus-marked (FOC).

- b. The question: is a given stress pattern compatible with FOC-marking on a given constituent?
- c. Being F-marked can be "projected" up the tree from the accented word.

#### (9) Focus projection

- a. The accented word is F-marked.
- b. If the head of an XP is F-marked, the XP can be F-marked.
- c. If an internal argument (object) of a head is F-marked, the head can be F-marked.
- d. The highest projection of F-marking is FOC.

### (10) Interaction between F-marking, FOC-marking, and interpretation

- a. A constituent without F-marking is interpreted as given.
- b. A constituent with F-marking is interpreted as new.
- c. A constituent with FOC-marking can be either (F-marked can be given only if FOC).
- (11) a. MARY bought a book about BATS.
  - b. What's been happening?
  - c.  $[[Mary]_F$  [bought a book about BATS] $_F]_{FOC}$
- (12) a. MARY bought a BOOK about bats.
  - b. Blah blah something about bats. Also: What's been happening?
  - c.  $[[Mary]_F [bought [a BOOK_F about bats]_F]_F]_{FOC}$
- (13) What did he do?
  - a. \* He only smoked in the TENT.
  - b. He only looked at the TENT.
- (14) a. What's up?
  - b.  $[JOHNSON_F \text{ died }]_{FOC}$ .
  - c. Johnson<sub>i</sub> [ $\nabla P$  t<sub>i</sub> died.]
- (15) a. What's up?
  - b. [I made A PHONE $_F$  beep ] $_{FOC}$ .
  - c. I made a phone<sub>i</sub> [ $\sqrt{P}$  t<sub>i</sub> beep.]
  - d. \* [I forced A PHONE<sub>F</sub> to beep ]<sub>FOC</sub>.
  - e. I forced a phone [VP PRO to beep.]

- (16) a. What's up?
  - b. [Your EYES $_F$  are red ] $_{FOC}$ .
  - c. Your eyes<sub>i</sub> [VP  $t_i$  are red.]
  - d. \* [Your EYES<sub>F</sub> are blue ]<sub>FOC</sub>.
  - e. Your eyes [VP are blue.]
- (17) a. Something about Helen, taking a nap, watching TV, lounging around.
  - b. What  $BOOKS_F$  did Helen review?
  - c. what books<sub>i</sub> did [IP Helen review  $t_i$ ]?

## 2 Schwarzschild's commentary, proposal

- (18) a. John drove Mary's red convertible.
  - b. What did he drive before that?
  - c. He drove her  $[BLUE]_F$  convertible.
  - d. # He drove her blue CONVERTIBLE.

Does the absence of F-marking mean something is given? Her new convertible?

- (19) a. Mary's old convertible is no longer available.
  - b. What's John going to do?
  - c. He'll  $[[RENT]_F$  her  $[NEW]_F$  convertible] $_{FOC}$ .

Schwarzschild (1999) works out a notion of "givenness" that doesn't need to be a whole constituent (can be something like her - convertible). Basically: there's some property X such that the discourse contains/entails  $her\ X$  convertible.

His basic story is: If something isn't F-marked, it must be given. Then, F-mark as little as you can. (You have to F-mark some things if you are saying anything new, but don't waste Fs.)

### 3 Büring and second occurrence focus

(20) (Everyone already knew that Mary only eats vegetables.) If even  $PAUL_F$  knew that Mary only eats vegetables, then he should have suggested a different restaurant.

The reason that 20Fi can get away with being unaccented is presumably because they're given in some way. They are, indeed, a "second occurrence."

In Büring's paper, 2OF is "second occurrence focus" and 2OFi is the plural, "second occurrence foci."

Büring's section 3.1 contains an attempt to show that we cannot just define 2OF as "focused and given" (and '1OF' [primary focus] as being "focused and new").

*John* in the question is sufficient to allow *John* in the first answer to be treated as given, but it still has to have an accent in the second answer (where it should be just as given, but now must be accented).

- (21) 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).
- (22) a. Bob was completely drunk at John's party.
  - b. No,  $JOHN_F$  was completely drunk at his party.

The focused things above are *free* (they are not associated with a focus-sensitive word like *only* or *even*). Above, these foci are still Given. And even associated foci can be.

(23) John is having a party. But only  $JOHN_F$  knows when and where.

The question now is: what is the difference between PF (primary focus) and 2OF? It's not just a difference in Givenness. Nor boundness.

The intuition Büring tries to work with here is that it seems like 2OF is somehow contained inside the primary focus. So, we work on "contained" and "inside."

#### (24) Domain theory of primacy

Among two foci in a sentence, the primary focus is the focus whose domain contains the domain of the other.

Primary focus gets the main pitch accent.

The kind of default domain is the whole sentence. The usual kinds of focus (answer to a question, corrective contrast) would be foci whose domain is the whole sentence. The ones with smaller domains will be those that have a focus-sensitive operator (like *only*) acting on the focus.

#### (25) John only $_{1}$ eats TOFU $_{F1}$ .

Maybe something like this: the focus gets "captured" and used by *only*, outside of which, as far as the rest of the sentence is concerned, there is no focus. So, the domain is more or less the place beyond which the effects of a focus don't reach.

(26) John [only  $_{I}$  eats TOFU $_{FI}$ ].

Büring supposes that *all* foci need to be "interpreted" by some kind of operator. *Only* and *even* and other focus-sensitive items count as a way to interpret focus, but if there is no obvious one, then it is assumed that there is one at the top of the tree, attached to the sentence. Büring writes it in two pieces,  $\sim$  and ContextConnect:  $\sim$  CC. This takes care of the "free" foci (those unassociated with any other focus-sensitive item).  $\sim$ CC connects the focus to the domain to the context in the following way. (CC is ContextConnect): There must be a salient antecedent in the context whose meaning is an element of the set of propositions introduced by  $\sim$ .

- (27) a. Bill drinks Tang.
  - b. JOHN drinks Tang (too).
- (28) a. Bill drinks Tang.
  - b. BILL drinks sangria (too).
- (29) a. Lots of poeple drink lots of stuff.
  - b. JOHN drinks TANG.

Now, we get this (1 contains 2, so 1 is primary, hence accent on first *faculty*).

- (30) a. Out grad students only quote the faculty.
  - b. No, [ the FACulty<sub>1</sub> [only<sub>2</sub> quote the faculty<sub>F2</sub> ]] $\sim$ <sub>1</sub> CC.

For this one, neither 1 nor 2 contain the other, but yet *John* must get the accent.

- (31) a. Many people only drank juice at John's party.
  - b. [[Even<sub>1</sub> JOHN<sub>F1</sub>] [only<sub>2</sub> drank juice<sub>F2</sub> at his party]].

The reason for this is that it's the "cheapest" way to match up with the context. So, the one that associates with the  $\sim$  is *John*. Then, it's contained, and gets the accent.

- (32) a. Someone only drank juice at John's party.
  - b. # Even John only drank something/juice at his party.
- (33) a. [[Even<sub>1</sub> JOHN<sub>F1,3</sub>] [only<sub>2</sub> drank juice<sub>F2</sub> at his party]] $\sim$  3 CC
- (34) FocusProminence if P is the domain of a focus sensitive operator O [i.e. focus-sensitive particles and ~CC], the most prominent element in P is a focus of O.
- (35) 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 biggest constituent containing F, but excluding O.

- (36) Stress-to-Accent-rule
  Assign a pitch accent to the strongest/nuclear stress and to every metrically strong syllable preceding it.
- (37) IP-head-right
  The head of the intonational phrase is the rightmost stress (at the next lower level) within IP.
- (38) Frederick the Great spoke French to his family, and...
- (39) [...German<sub>F1</sub> to his HORSES<sub>F1</sub>] $\sim$  <sub>1</sub>CC.

What goes wrong here? (Why can't *Paris* be 2OF?)

- (40) What did John only eat in PARIS?
  - a. # John only ate crêpes in PARis.
  - b. # John only ate CRÊpes in Paris.
  - c. [John only<sub>1</sub> ate crêpes<sub>F2</sub> in Paris<sub>F1</sub>] $\sim$  2CC
  - d. CRÊpes, John only eats in Paris.

The most prominent element of *only*'s domain is *Paris*? The most prominent element of  $\sim$ 's domain is  $cr\hat{e}pes$ ? But we already know it's less prominent than *Paris*. Wait. (Conclusion: free focus must precede the whole domain of the associated focus.)

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

Why is this ok? Why not as bad as *crêpes in Paris*? Check out the pause. Prosody.

#### References

Büring, Daniel. 2008. Been there, marked that: A theory of second-occurrence focus. Ms., UCLA.

Schwarzschild, Roger. 1999. GIVENness, AvoidF and other constraints on the placement of accent. *Natural Language Semantics* 7: 141–177.

Selkirk, Elisabeth. 1996. Sentence prosody: intonation, stress, and phrasing. In John A. Goldsmith (ed.) *The handbook of phonological theory*, 550–569. Cambridge, MA: Blackwell.