

Corpus Evidence for a Theory of Deaccenting in English

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GIVEN! A workshop to celebrate the life and work of Dr. Michael Rochemont
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Including
Staircase Words

Post-talk thoughts and responses to the questions

A poem by Dylan Thomas

And death shall have no dominion.
Dead man naked they shall be one
With the man in the wind and the west moon;
When their bones are picked clean and the clean bones gone,
They shall have stars at elbow and foot;
Though they go mad they shall be sane,
Though they sink through the sea they shall rise again;
Though lovers be lost love shall not;
And death shall have no dominion.

Outline of Talk

1. Rochemont 2017 SSHRC Grant Proposal
2. Historical Background: A Descriptive Theory of IS: Gundel & Fretheim 2004
3. Historical Background: A Formal Theory of IS: Rochemont 1986
4. A Revised Formal Theory of IS: Rochemont ..., 2013, 2016, 2019
5. Corpus Data (Very preliminary)
6. Conclusion

Rochemont SSHRC Grant Proposal 2017

“A Comparative Study of Prosodic Givenness Marking”

Givenness Marking

Deaccenting

- (1) {John and Mary recently went to the beach.}
- a. They brought **some PICNIC supplies**, but they didn't drink **the BEER** because it was WARM.
 - b. They brought **some BEER**, but they didn't DRINK the beer because it was WARM.

Ellipsis

- (2) a. JOHN asked how to **fly** before BILL asked how to **[VP \emptyset]**. (VP-ellipsis)
- b. *JOHN asked how **to fly** before BILL asked how **[IP \emptyset]**. (Sluicing)

Objectives (Rochemont grant proposal, fall 2017)

- (i) Are there empirical generalizations concerning which (stress) languages do or don't have deaccenting?
- (ii) In what ways is deaccenting similar or different across languages that do have it? Is there variation in its use or in the structural, semantic, or pragmatic conditions on its use?
- (iii) In languages that have deaccenting, how does deaccenting bear on the types of and conditions on ellipsis constructions?
- (iv) How do the comparative cross-language empirical conditions gleaned from (i) and (ii) bear on the grammatical and information structural analysis of deaccenting and/or ellipsis?
- (v) What does the analysis of prosodic givenness marking reveal about the tacit grammatical and information structural knowledge of language speakers?

Proposed corpus study (Rochemont grant proposal, fall 2017)

“The major benefit of the use of spoken and written corpora to uncover relevant data is that it will allow the recovery of attested occurrences of deaccenting. This will also provide examples to be modelled in the elicitation of native speaker judgements, and in experimentation.

“Two major shortcomings in the use of corpora are that a) it may be that critically relevant examples are lacking in the specific corpora under investigation and b) the mere existence of an attested example does not suffice to guarantee that it is an acceptable example in the language in question since it may be influenced by any number of aspects of production (non-native speakers, performance errors, etc).

“With the guidance of the team’s corpus experts, in addition to hand searching corpora, corpora searches will automatically isolate questions and their corresponding answers as well as phrasal repetitions and sentences with ‘too’ or its equivalent, in an effort to discover stretches of text where deaccenting may be expected. Speech analysis (e.g. with Praat) of sound corpora will be used to support claims of deaccenting in such cases. Written corpora will be tested with native speakers and speech analysis.”

Historical Background

A Descriptive Theory of Information Structure (IS)

Gundel & Fretheim 2004 (based on Gundel 1974, ...; Gundel, Hedberg & Zacharski 1993, ...)

Relational Givenness-Newness

“Involves a partition of the semantic/conceptual representation of a sentence into two complementary parts.”

“Topic is what the sentence is about; focus is what is predicated about the topic.”

Referential Givenness-Newness

“A relation between a linguistic expression and a corresponding non-linguistic entity in the speaker/hearer’s mind, the discourse (model), or some real or possible world”.

A relationally new expression may be referentially given.

(3) A: Did you order the chicken or the pork? B: It was **the PORK** that I ordered.

Topics are usually familiar, and must be at least referential.

(4) **An old preacher down there**, they augured under the grave where his wife was buried. [Prince 1985]

Gundel & Fretheim 2004: Contrastive focus

“There has been...confusion between two conceptually distinct interpretative notions of **focus**: one of these is relational - the information predicated about the topic; the other is referential - material which the speaker calls to the addressee’s attention, thereby often evoking a contrast with other entities that might fill the same position. We refer to these two senses as **information focus** and **contrastive focus** respectively.”

Contrastive focus on the topic:

- (5) We have to get rid of some of these clothes. That **COAT** you’re wearing I think we can give to the Salvation ARMY.

Contrastive focus on the information focus and on the topic:

- (6) A: Who made all this great food? B: **BILL** made the **CURRY**.

Historical Background

A Formal Theory of Information Structure (IS)

Rochemont 1986: C-construable

An expression P is **c-construable** in a discourse δ iff P is either directly or indirectly c-construable in δ .

An expression P is **directly c-construable** in δ iff:

- (i) P has a semantic antecedent P' in δ , or
- (ii) the intended antecedent of P in δ has been brought to the attention of the participants in δ .

An expression P is **indirectly c-construable** in δ iff,

- (i) P is a member of a lexically specified class of scene-setters, or
- (ii) P is an acceptable scene-setter in δ by virtue of the participants' anticipated familiarity with the speaker's discourse setting.

Notes and post-talk thoughts on Rochemont 1986

COMMENT ON INDIRECT C-CONSTRUABILITY: For examples of focus shift away from unaccented “scene-setter” predicates in all-new contexts, see Rochemont 2013, pp. 54-60:

4.2. Unaccented NEW phrases: a problem for normal stress.

...

d. A new VIRUS was detected. | A new VIRUS was DESTROYED/#destroyed.

To me, Michael’s original 1986 explanation for such predicates, which treated them as indirectly c-construable still stands. In 2013 he patiently goes through all the myriad later hypotheses that purport to explain such cases and concludes that none of them work. He suggests (again) that only a pragmatic account will suffice: the speaker presents these predicates as IF given, i.e. as if c-construable, i.e. (now) as derived through “GIVENNESS accommodation”: the speaker treats them as not controversial, not noteworthy, hence backgrounded.

Rochemont 1986: Focus rules

An expression P is a **Presentational Focus** in a discourse δ , $\delta = \{\varphi_1, \dots, \varphi_n\}$ iff,

- (i) P is an expression in φ_i , and
- (ii) at the time of utterance of φ_i in δ , P is not c-construable.

An expression P is a **Contrastive Focus** in a discourse δ , $\delta = \{\varphi_1, \dots, \varphi_n\}$ iff,

- (i) P is an expression in φ_i , and
- (ii) if P/φ_i is the resulting of extracting P from φ_i , then P/φ_i is directly c-construable, and φ_i is not directly c-construable.

Appropriateness conditions

Focus Condition:

In $\delta = \{\varphi_1, \dots, \varphi_n\}$, φ_i is appropriate to δ only if φ_i grammatically specifies as a focus every phrase in φ_i that meets the conditions of the Focus Rules.

Cohesion Condition:

In a discourse δ , $\delta = \{\varphi_1, \dots, \varphi_n\}$, φ_i is appropriate to δ only if the speaker intends in uttering φ_i to conform to the maxim of relevance.

Presupposition Condition:

If a given sentence φ_i in a discourse δ , $\delta = \{\varphi_1, \dots, \varphi_n\}$, expresses a presupposition P and P is not a member of a context set associated with δ at the time of utterance of φ_i , then φ_i is not appropriate to δ .

Notes and post-talk thoughts on Rochemont 1986

I meant to say that Michael embedded his 1986 formal theory of focus in a general Gricean framework of discourse (as made explicit in his Appropriateness conditions).

This was remarkably thorough, as well as remarkably sophisticated for its time. For example, Sperber & Wilson's book *Relevance* (1986), which provided perhaps the most elaborated general pragmatic theory of discourse up to that time had not even yet been published.

Furthermore, I think that it is rare, if not non-existent, for anybody else working on a formal theory of focus after Rochemont 1986 to even attempt to construe their theory so broadly, i.e. as part of a truly interactive pragmatic theory.

A Revised Formal Theory of Information Structure

(Rochemont ..., 2013, 2016, 2019....)

Rochemont's 2019 revised theory

- Follows the proposal of Kratzer & Selkirk 2007, Selkirk 2008, Rochemont 2013, as verified experimentally in Katz & Selkirk 2011:
 - to recognize G-marking, and
 - “to allow F-marking to distinguish alternative-based focus constituents from discourse-new ones.”
- See especially Kratzer & Selkirk's recent 2018 paper on BuzzFeed, which is dedicated to Michael.

Summary table: (Rochemont 2019, adopted from Selkirk 2008)

<i>Semantics</i>	Focused	Given	New	SOF
<i>Syntax</i>	F-marked	G-marked	unmarked	F- + G-marked
<i>Prosody</i>	nuclear accent (I)	deaccented	accented (φ)	SOF prosody

Experimental evidence for different prosodic realizations of the four different IS categories:

Katz & Selkirk 2011 (see also Selkirk 2002, ...) show experimentally that **contrastive focus** has a different prosody than **new information focus**:

“Elements under contrastive focus show greater duration, relative intensity, and F0 movement with respect to other elements in the utterance than elements that are new in the discourse but not under contrastive focus.”

Beaver, et al. 2007, among others, show experimentally that **Second Occurrence Focus** has a different prosody than pure **GIVENNESS deaccenting**.

Roughly, SOF is prosodically more prominent than ordinary givenness-marking-motivated post-nuclear stress deaccenting, and is perceptually detectable.

Rochemont 2019 (updating Schwarzschild 1999, Buring 2015)

An utterance U counts as **GIVEN** iff it has a salient antecedent A and

- a. If U is of type e , then A and U corefer.
- b. Otherwise, modulo existential type shifting, A entails the Existential F-closure of U .

Existential F-closure of $U =_{df}$ the result of replacing all non-G-marked F-marked constituents in U with variables, removing all other non-G-marked constituents, and existentially closing the result, modulo existential type shifting.

G-marking Condition: F-marked α is G-marked only if α (i) is GIVEN, and (ii) the focus domain of α is GIVEN.

Focus domain $=_{df}$ P is the domain of a focus F and its operator O iff P is the smallest vP/IP that marks the scope position of O .

Definitions

Schwarzschild's 1999 mechanism of existential F-closure was developed in order to utilize the notion of discourse entailment to account for deaccented (presumably GIVEN) expressions of different "sizes".

The point is to say that GIVENNESS means "entailed in the discourse context." But, entailment is a relation between propositions, so expressions containing GIVEN material of a smaller "size" have to be converted into proposition-sized expressions, so that an entailment account can apply.

Hence, you extract non-given material, replace it with a variable and existentially close the resulting open proposition to obtain an actual proposition that can be entailed in the context.

$\text{JOHN}_F \text{ left} \Rightarrow x \text{ left} \Rightarrow \text{Someone left.}$

"So, e.g. "someone left" is entailed in a context that asserts that "Bill left". Hence "A: Bill left. B: No, JOHN left" is a coherent discourse.

What Michael did was to update Schwarzschild's account, which relied solely on F-marking, to also incorporate G-marking.

Solution to Hedberg's 30-year ALSO-cleft puzzlement?

The rate of fatal heart attacks among middle-aged men increased steadily until the late 1960's, at which point it leveled off and soon began to decline. Not coincidentally, it was about that time that large numbers of men wised up to the harmfulness of cigarettes. **It was also in the late 60's that more healthful foods—specifically, foods low in cholesterol and saturated fat— began to invade American kitchens.** Since then, the average cholesterol level of adult males has fallen.... [Jane E. Brody, 'America's Health: An Assessment,' the New York Times Magazine, 10/8/89, p. 42]

- (7) A: Why do you think that John is the murderer?
B: It was JOHN who had the MOTIVE. It was JOHN who had the OPPORTUNITY. **It was ALSO JOHN who found the BODY.**

Hedberg's 1990, 2013 topic-marking-cleft analysis:

- (8) **ASSERT₁ It was ALSO₂ CLEFT₃ [JOHN]_{F3} [who found the BODY]_{F1, F2}**

Hedberg's new analysis: Second Occurrence Focus (SOF)

- (9) **It was ALSO [JOHN]_{F,G} who found the BODY.** Focus domain: **[It was [JOHN]_{F,G}]**

What is Second-Occurrence Focus?

Like I said during the talk, when I got to this slide, I had been convinced on Saturday (before the workshop, when the slides first came together) that Second Occurrence Focus was the solution to ALSO-clefts, but I couldn't express this coherently during the talk.

Second-Occurrence Focus is when a Focus-as-Alternatives focus associated with an operator like 'only' is intriguingly non-prominent when the focus marking occurs in a complex context in which the focusing itself is somehow repeated, e.g. by virtue of being recursively embedded in the context of another focus:

A: Bill said **only**_i **JOHN**_{i-1st occurrence focus} laughed.

A': **Even**_j **FRED**_{j-1st occurrence focus} said **only**_i **JOHN**_{i-2nd occurrence focus} laughed.

Beaver, et al., 2007, among others recently, show experimentally that SOF has a distinct prosody—it is partially, but not completely, deaccented

About Clefts, then.

That suggestion for an analysis of ALSO-clefts only seems to account for the matrix clause in the English cleft.

It doesn't say anything about the subordinate "cleft clause" (as I have termed it), i.e. what UBC people term the "residue".

My thought now is that "residue" is a good term for it because it seems to behave only like some kind of "afterthought." That is (now), even in my "topic-comment clefts" (Prince's "informative presupposition clefts").

I am thinking of what I learned last summer (in the context of studying apparent post-core-clause material in Hul'q'umi'num') about "right-dislocated" constituents in languages, which can sometimes express new information in a perhaps asyndetic way, as well as, perhaps more often, given information.

Perhaps supports den Dikken's (2013) approach to clefts over my accounts.

Corpus Data

(Very preliminary)

Michael's plan for the corpus study

“With the guidance of the team's corpus experts, in addition to hand searching corpora, corpora searches will automatically isolate questions and their corresponding answers as well as phrasal repetitions and sentences with 'too' or its equivalent, in an effort to discover stretches of text where deaccenting may be expected. Speech analysis (e.g. with Praat) of sound corpora will be used to support claims of deaccenting in such cases. Written corpora will be tested with native speakers and speech analysis.”

Fisher corpus

- Corpus of telephone conversations, available from the Linguistic Data Consortium (Fisher English Training Part 2)
- People were paid as research participants to accept phone calls from strangers to talk for 10 minutes on an assigned topic.
- Some topics (it was 2003) were, 'Do you think the United States should invade Iraq?' and 'How do you feel about reality TV?'
- Speech seems quite natural, people often go off topic into personal conversation.
- Large corpus: 5,849 sound files (just in part 2) [close to 1000 hours]
- Speech recorded on two tracks, which facilitates phonetic analysis.
- Transcripts are plain text files, and are time-stamped.

FE_03_00049-clip1.wav



295.19 296.19 B: [laughter]

296.20 297.61 B: yeah

297.62 304.29 B: **unfortunately** i you know in my **dorm** i get **three channels** i get [**n._b._c.**] [**a._b._c.**] and [**p._b._s.**].

303.72 304.99 A: ((oh [mn]))

304.30 306.83 B: so i'm quite **limited** [laughter]

Deaccenting within an acronym



i get [n._b._c.] [a._b._c.] and [p._b._s]

- Mere repetition of words licenses deaccenting.
- Doesn't require a salient referent or denotation.
- Even repetition within a name or acronym (initialism) suffices to trigger deaccenting.

FE_03_00049_clip3.wav



49_3

629.46 634.39 B: well i don't **know** what we're supposed to **do** with this **thing**
are we **supposed** to just [**keep talking**] is it going to **tell** us

633.81 644.42 A: **yeah** um i **had** a session **yesterday** and you just [**keep on**
talking] for ten **minutes** and then **they** give you thirty **seconds** at the **end** and
uh **to** say **goodbye** and things like **that** so uh

643.75 644.84 B: oh **okay**

644.55 648.43 A: um i **don't** know how **long** we've [**been talking**] but i suppose
we should [**keep talking**]

648.25 650.72 B: **oh well** that's **fine** um

649.58 650.42 A: yeah

Default accent on GIVEN verb

644.55 648.43 A: um i **don't** know how **long** we've **[been talking]** but i suppose we should **[keep talking]**

- If there had been a preposition in the verb phase, default accent could have landed there.
I suppose we should **[keep on talking]**
- It can't land on the auxiliary because that would incorrectly indicate VERUM FOCUS:
I suppose we **should** **[keep talking]**
- So it lands on the verb, **keep**, even though the verb is also GIVEN from previous sentences: are we **supposed** to just **[keep talking]**
- Mostly, perhaps the speaker indicates here a contrast between **been talking** and **keep talking**

i suppose we should **[keep_F talking]_G**

FE_03_00476_clip1.wav



100.89 103.51 B: but i guess as far as [**favorite food**] goes

104.31 107.16 B: [**i like popcorn**] but i think they're talking **more** in **terms** of [**a meal**]

108.08 111.36 B: when i [**i was just eating popcorn**] so it's kind of on my **mind**

110.12 113.48 A: [**i i i actually like popcorn a lot too**] [**i have it all the time**]

113.95 118.39 B: [**i do too**] i'll **have** that [**for a meal**] sometimes **actually** if i'm feeling **exceptionally lazy**

116.77 117.26 A: yeah

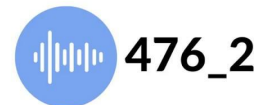
Default accent on preposition, repetition with 'too'

104.31 107.16 B: [i like popcorn] but i think they're talking more in terms of [a meal]
 108.08 111.36 B: when i [i was just eating popcorn] so it's kind of on my mind
 110.12 113.48 A: [i i i actually like popcorn a lot too] [i have it all the time]
 113.95 118.39 B: [i do too] i'll have that [for a meal] sometimes actually if i'm feeling exceptionally lazy

- popcorn twice is not deaccented even though it could be: deaccenting is sometimes optional?
- i and i are perhaps accented in association with too, but it's not that easy to hear that they are really accented.
- for accented by default when its complement a meal is deaccented due to being a repetition. for is neither contrastive nor given.

i'll have that [for [a meal]_G] sometimes actually

FE_03_00476_clip2.wav



213.28 218.55 A: **yeah** [i don't really like **meat too much**] and [i don't really like **cheese**] so **that's** pretty **much** what they tell you to **eat**

218.95 222.34 B: **yeah** and [i **love cheese**] but [i **couldn't live on cheese alone**]

222.68 228.68 A: **yeah** i was [i kind of [like it] **too**] but i **started** to [not like it] after **just** like **they're** like [have a snack of **cheese**]

222.98 224.57 B: i can't **imagine** not having

228.50 231.25 B: here [just **eat a hunk of cheese**]

Accented repetition, accented repetition with 'too'



213.28 218.55 A: yeah [i don't really like meat too much] and [i don't really like cheese] so that's pretty much what they tell you to eat
218.95 222.34 B: yeah and [i love cheese] but [i couldn't live on cheese alone]
222.68 228.68 A: yeah i was [i kind of [like it] too] but i started to [not like it] after just like they're like [have a snack of cheese]
222.98 224.57 B: i can't imagine not having
228.50 231.25 B: here [just eat a hunk of cheese]

- love accented in contrast with don't really like, cheese perhaps accented in contrast with meat?
- Then, cheese is given but accented in association with alone?
- i accented in association with too; like is treated as given as background of too, but perhaps is accented in contrast with her previous don't really like as well as in anticipation of her contrast with not like it?
- Like it deaccented due to antecedent like it and availability of contrastive not to accent.
- Potential antecedent cheese outside the quotes doesn't trigger deaccenting of cheese inside the quotes?

Valéria's comment about 'cheese' possibly being accented due to being a Contrastive Topic

Re: why B accents 'cheese' after contrasting her [i love cheese] with A's [i don't really like cheese]

We talked about the puzzle as to why 'popcorn' and 'cheese' are accented although GIVEN, and about how the examples seem to violate the established rule that in English, deaccenting is obligatory after a nuclear accent. I mistakenly left it a mystery, but now note that F-marking in the theory does NOT mark **information** focus, which determines the **nuclear** accent— it only marks **contrastive** focus, which can be **non-nuclear**.

It now strikes me that 'cheese' (similarly 'popcorn') may be accented because it still IS the information focus, i.e. in Gundel's terms the relationally new element, the comment:

“As for [CHEESE]_{CT}, unlike you, I [LOVE]_{Focus-of-Contrast} [CHEESE]_{Focus-of-Information}.”

Michael didn't really, even in his 2019 Architecture of Topic paper, get as far as finding a clear role for topic [and therefore its complement, information focus] in prosody. In Gundel's terms, he dealt with referential givenness, but not yet relational givenness. It maybe also/instead involves an even higher discourse topic. Which makes me think:

I think Valéria may have been suggesting that we have a complex (high) Büring-style contrastive-focus dialogue-tree discourse going on here: LEVEL 1: How do I feel about FOOD? LEVEL 2a: How do I feel about POPCORN? LEVEL 2b: How do I feel about CHEESE? I.e. the accenting on 'POPCORN/CHEESE' here may result from their importance as Contrastive Topics.

FE_03_00049_clip2.wav



49_2

396.70 407.08 B: yeah [me too] i i love [the food network] and um like [discovery channel] and [that kind of thing] i like watching [the sort of realistic shows]

407.54 418.21 A: right yeah it's it's sort of weird so i mean like the the truly interesting things are the r- i mean [the shows about reality] but [the reality television itself] is sort of uh

418.28 419.66 A: uh disturbing

419.59 423.34 B: yeah it's not [my reality] you know [laughter]

421.74 422.63 A: ((right [mn]))

Entailment



49_2

[the sort of **realistic shows**]

$X = \{\text{Food Network, Discovery Network, ...}\}; Y = \{\text{shows}\}, X \Rightarrow Y$

The entailment relation licenses treatment of **shows** as GIVEN

Specifically, $X = \text{realistic shows}$

[the sort of **realistic shows**_G]

[the shows_G [about reality_G]]_F

[the [reality television]_G itself]_F

it's not [my reality]

$X = \{\text{the shows about reality}\}, X \neq Z; Z = \{\text{the reality television itself}\}$

Z are disturbing

Z purport to represent $W = \{\text{the viewers' reality}\}; Z \Rightarrow W$

This entailment relation licenses **reality** as GIVEN

But, in contrast, $W \neq \text{[my reality]}$

[my_F reality_G]

Conclusion

The new theory proposes to mark IS in syntax with two features:

- [F] marks Contrast (Focus as Alternatives).
- [G] marks GIVENNESS.
- These function in relation to a theory of default accenting/normal stress.

That meshes well with the practice of phoneticians, who tend to notice just those two things during the stream of speech:

- Heightened prominence, which they associate with Contrast.
- Diminished prominence, which they associate with Givenness.

Michael's plan for the corpus study has proved already to be a fruitful one:

- So far, we have only tried searching automatically for instances of 'too'.
- The speech segments thereby found have proven to be interesting ones.
- We plan to continue despite really missing Michael. There's a lot to do.

Default Prosody

Like I said in question period, a theory of default accent is needed in the new theory to deal with non-contrastive accents, e.g. information focus accents that mark merely new information.

In his recent papers, Michael points out, as do Kratzer & Selkirk (who propose a very similar theory—and note again, that they dedicate their paper to Michael), that the theory of only syntactically marking Givenness [G] and contrastive focus [F] needs to be supplemented by a theory of default accent so as to account for all pitch accents.

This could be a refined version of Chomsky & Halle's 1968 classic nuclear stress rule, which e.g. predicts nuclear accent to basically fall on the last lexical element in the clause, etc., but also would need to account for pre-nuclear pitch accents that fall on non-G-marked constituents.

References

- Büring, Daniel. 2015. A theory of second occurrence focus. *Language Cognition and Neuroscience* 30 (1–2): 73– 87.
- Cieri, Christopher, et al. 2005. Fisher English Training Part 2, Speech LDC2005S13. DVD. Philadelphia: Linguistic Data Consortium
- Cieri, Christopher, et al. 2005. Fisher English Training Part 2, Transcripts LDC2005T19. Web Download. Philadelphia: Linguistic Data Consortium.
- Gundel, Jeanette K. & Thorstein Fretheim. 2004. Topic and focus. *The handbook of Pragmatics*, ed. By L. R. Horn & G. Ward, 175-196. Oxford: Blackwell.
- Hedberg, Nancy. 2013. Multiple focus and cleft sentences. *Cleft Structures*, ed. by K. Hartmann & T. Veenstra, 227-50. Amsterdam: John Benjamins.
- Kratzer, Angelika & Elisabeth Selkirk. 2018. Deconstructing information structure. Posted on LingBuzz.
- Rochemont, Michael. 1986. *Focus in Generative Grammar* Amsterdam: John Benjamins.
- Rochemont, Michael. 2013. Discourse new, F-marking, and normal stress. *Lingua* 136. 38-62.
- Rochemont, Michael. 2016. Givenness. *The Oxford Handbook of Information Structure*, ed. by C. Féry & S. Ishihara, 41-63. Oxford: Oxford University Press.
- Rochemont, Michael. 2019. Topic and givenness. *The Architecture of Topic*, ed. by V. Egerland, V. Molnár & S. Winkler. De Gruyter.
- Schwarzschild, Roger. 1999. GIVENness, AvoidF and other constraints on the placement of accent. *Natural Language Semantics* 7.141-177.
- Selkirk, Elisabeth. 2008. Contrastive focus, givenness, and the unmarked status of “Discourse-New”. *Acta Linguistica Hungarica* 55.1-16.

Additional References

- Beaver, David I., Brady Clark, Edward Stanton Flemming, T. Florian Jaeger & Maria Wolters. 2007. When semantics meets phonetics: Acoustical studies of Second-Occurrence Focus. *Language* 83. 245-76.
- den Dikken, Marcel. 2013. Predication and specification in the syntax of cleft sentences. *Cleft Structures*, ed. by K. Hartmann & T. Veenstra, 35-70. Amsterdam: John Benjamins.
- Selkirk, Elisabeth. 2002. Contrastive focus vs. presentational focus: Prosodic evidence from right node raising in English. *Speech Prosody 2002: Proceedings of the 1st International Conference on Speech Prosody, Aix-en-Provence*, 643-46.