Can Focus Accenting be Eliminated in Favor of Deaccenting of Given Constituents?

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Ninth Symposium on Logic and Language
Besenyötelek, 23-26 August 2006
1. What governs Sentence Accent?

Focus and Givenness

A popular answer: **Focus**, i.e. Highlighting. Cf. Hermann Paul (1880):

(1)  **A**: *Wann fährt Karl nach Berlin?*  **B**: *Karl fährt morgen nach Berlin.*

   “Am schärfsten von den übrigen Gliedern des Satzes sondert sich zunächst das psychologische Präd. ab als das wichtigste, dessen Mitteilung der Endzweck des Satzes ist, auf welches daher der stärkste Ton fällt” (Paul 1880, §197).

   “The psychological predicate [i.e., focus] is distinguished most clearly from the other parts of the sentence; it is the one that the sentence is intended to communicate, and which carries, for that reason, the strongest tone.”

But also **Givenness** (cf. Ladd 1980, 1996; Gussenhoven 1983, Selkirk 1984...):

(2)  *I bought a bottle of whisky, but it turns out that she doesn’t like whisky.*

   “a word that we might expect to be accented (*whisky*) fails to be accented in a context where it has recently been used or where the entity to which it refers has been mentioned”


- Focus is expressed by accent
- Givenness prevents accent

In theories in which focus is understood as expressing new (i.e., non-given) information, these conditions coincide (cf. Sgall, Hajičová & Panenová 1986).
Question: Can we work with Givenness/Deaccenting only?

Theories that work with Focus/Accenting rules only don’t work:

(3) A: *What did Mary do?
    B: She [praised Jóhn]FOCUS.

(4) A: *What did John’s mother do?
    B: *She [praised him]FOCUS
    B’: She [praised him]FOCUS (Focus + Deaccenting)

But perhaps we can work with just Givenness/Deaccenting rules?

(5) A: What did John’s mother do?
    B: [She]GIVEN praised [him]GIVEN.

Overview of talk:

- Schwarzschild (1999), a theory in which Givenness/Deaccenting plays a crucial role
- A (strawman) theory that works only with Givenness
- A comparison of Schwarzschild (1999) and the Givenness theory
- Problems for a Givenness theory (and for Schwarzschild)
- How Focus Accent and Givenness Deaccenting interact
- Argument/Head asymmetry in so-called “Focus projection”
2. The theory of Schwarzschild (1999)

Ingredients of Schwarzschild’s theory:

➢ Focus projection rules of Selkirk (1984, 1996):
  a. F-Assignment: An accented word is F-marked.
  b. F-Projection:
     (i) F-marking of the head of a phrase licenses F-marking of the phrase
     (ii) F-marking of the internal argument of the head licenses F-marking of the head.

Example:
(6) A: *What did Mary do?*
    B: [She [praised\textsubscript{F} Bill\textsubscript{F}]]
Why detour of F-projection via head? Because of non-accented arguments.

(7) A: *What did John’s mother do?*
    B: [She [praised\textsubscript{F} him\textsubscript{F}]]
But givenness is compatible with F-marking:

(8) A: *Who did John’s mother praise?*
    B: [She [praised him\textsubscript{F}]]
Additional rules proposed by Schwarzchild:

- **GIVENness**: If a constituent is not F-marked, it must be GIVEN.
- **AVOIDF**: F-mark as little as possible, without violating Givenness.

Where GIVEN is defined as follows:

- An utterance U is GIVEN if it has a salient antecedent A such that
  (i) If U refers to an entity, then U and A corefer;
  (ii) otherwise, A entails the existential F-closure of U.

Example of existential F-closure:

(9) \([\text{praised } \text{John}_F]\)

Meaning: \(\lambda x[\text{PRAISED}(\text{JOHN})(x)]\)

Existential closure of arg positions: \(\exists x[\text{PRAISED}(\text{JOHN})(x)]\)

Existential closure over focus: \(\exists y\exists x[\text{PRAISED}(y)(x)]\)
Examples how Schwarzschild’s rules work:
Crucial feature: givenness is applied recursively.
➢ Narrow focus:
(10) A: Who did Mary praise?  Presupp: ∃x[PRAISED(x)(MARY) ∧ PERSON(x)]
            B: [She [praised Jóhn₇₆]]
Indicated F-marking is possible:

<table>
<thead>
<tr>
<th>Constituent</th>
<th>F?</th>
<th>Ex. F-Closure</th>
<th>GIVEN?</th>
<th>o.k.?</th>
</tr>
</thead>
<tbody>
<tr>
<td>[She [praised Jóhn₇₆]]</td>
<td>no</td>
<td>∃x[PRAISED(x)(MARY)]</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>She</td>
<td>no</td>
<td>n.a.</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>[praised Jóhn₇₆]</td>
<td>no</td>
<td>∃y∃x[PRAISED(x)(y)]</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>praised</td>
<td>no</td>
<td>∃y∃x[PRAISED(x)(y)]</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>Jóhn₇₆</td>
<td>yes</td>
<td>n.a.</td>
<td>no</td>
<td></td>
</tr>
</tbody>
</table>

The indicated F-marking is the only one possible:

<table>
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<tr>
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<th>GIVEN?</th>
<th>o.k.?</th>
</tr>
</thead>
<tbody>
<tr>
<td>[She [praised John]]</td>
<td>no</td>
<td>[PRAISED(JOHN)(MARY)]</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>[Shé₇₆ [praised John]]</td>
<td>no</td>
<td>∃y∃x[PRAISED(JOHN)(y)]</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>[Shé₇₆ [praised Jóhn₇₆]]</td>
<td>no</td>
<td>∃y∃x[PRAISED(x)(y)]</td>
<td>yes, but nonmin</td>
<td></td>
</tr>
</tbody>
</table>
Narrow focus with F-marking of given constituent is possible:

(11) A: Who did John’s mother praise? Pres: $\exists x[\text{PRAISE}(x)(\text{MOTHER}(\text{JOHN}))]$  
B: [$\text{She }[\text{praised him}_F]]$

Indicated F-marking is possible:

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<tr>
<th>Constituent</th>
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<th>GIVEN?</th>
<th>o.k.?</th>
</tr>
</thead>
<tbody>
<tr>
<td>$[\text{She }[\text{praised him}_F]]$</td>
<td>no</td>
<td>$\exists x[\text{PRAISED}(x)(\text{MOTHER}(\text{JOHN}))]$</td>
<td>yes</td>
<td>✤</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>him$_F$</td>
<td>yes</td>
<td>n.a.</td>
<td>yes</td>
<td>✤</td>
</tr>
</tbody>
</table>

And indeed necessary:

$[\text{She }[\text{praised him}]]$ no $\text{PRAISED}(\text{JOHN})(\text{MOTHER}(\text{JOHN}))$ no ✤
The theory of Schwarzschild (1999)

➢ Broad (VP) focus:

(12) A: *What did Mary do?*  
Pres: $\exists P [P(MARY) \land \text{ACTIVITY}(P)]$

B: [She [praised$_F$ Jón$_F$$_F$$]$_F$]

<table>
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<th>Ex. F-Closure</th>
<th>GIVEN?</th>
<th>o.k.?</th>
</tr>
</thead>
<tbody>
<tr>
<td>[She [praised$_F$ Jón$_F$$_F$$]$_F$]</td>
<td>no</td>
<td>$\exists x [\text{PRAISED}(x)(MARY)]$</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>[praised$_F$ Jón$_F$$_F$$]$_F$</td>
<td>yes</td>
<td>$\exists P \exists x [P(x)]$</td>
<td>yes</td>
<td></td>
</tr>
</tbody>
</table>

It is not possible to have less focus:

<table>
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<tr>
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<th>Ex. F-Closure</th>
<th>GIVEN?</th>
<th>o.k.?</th>
</tr>
</thead>
<tbody>
<tr>
<td>[She [praised John]]</td>
<td>no</td>
<td>PRAISED(JOHN)(MARY)</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>[She [praised Jón$_F$]]</td>
<td>no</td>
<td>$\exists x [\text{PRAISED}(x)(MARY)]$</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>[She [praised$_F$ John]]</td>
<td>no</td>
<td>$\exists R [R(JOHN)(MARY)]$</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>[She [praised$_F$ John]$_F$]</td>
<td>no</td>
<td>$\exists P [P(MARY)]$</td>
<td>yes</td>
<td></td>
</tr>
<tr>
<td>John</td>
<td>no</td>
<td>n.a.</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>[She [praised$_F$ Jón$_F$$_F$$]$_F$]</td>
<td>no</td>
<td>$\exists R \exists x [R(x)(MARY)]$</td>
<td>no</td>
<td></td>
</tr>
<tr>
<td>*[She [praised John]$_F$]</td>
<td>no</td>
<td>not generated by Selkirk’s rules</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
 Broad (VP) focus, with given argument:

(13) A: *What did John’s mother do?* Pres: $\exists P(P(MARY) \land \text{ACTIVITY}(P))$

B: $[She \ [praised_F \ him_F]]$

As in previous example, except that *him* is given; F-marking on *him* can be dropped.

<table>
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<th>Ex. F-Closure</th>
<th>GIVEN?</th>
<th>o.k.?</th>
</tr>
</thead>
<tbody>
<tr>
<td>$[She \ [praised_F \ him_F]]$</td>
<td>no</td>
<td>$\exists P(P(MARY))$</td>
<td>yes</td>
<td>☑️</td>
</tr>
<tr>
<td><em>him</em></td>
<td>no</td>
<td>n.a.</td>
<td>yes</td>
<td>☑️</td>
</tr>
</tbody>
</table>

Additional F-marking is not necessary:

<table>
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<tr>
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<th>GIVEN?</th>
<th>o.k.?</th>
</tr>
</thead>
<tbody>
<tr>
<td>$[She \ [praised_F \ him_F]]$</td>
<td>no</td>
<td>$\exists P(P(JOHN)(MARY))$</td>
<td>yes, but nonmin</td>
<td>☑️</td>
</tr>
</tbody>
</table>
3. A Givenness Theory of Accentuation

Essence of Schwarzschild’s Theory:

- Near complementary relation Focus/Givenness: ¬F-marked → GIVEN.
- Avoidance of F-marking

Focus plays a minor role:

“By establishing givenness as the mainstay of our theory, we break ranks with those who assume that focus provokes interpretation.” (Schwarzschild 1999)

Question: Is a Givenness-Only theory feasible?
Basic assumptions of Givenness Theory

- **GIVENess**₃: If a constituent is D-marked, then it is GIVEN₃.
- **DEACCENT!**: D-mark as much as possible.

Cf. Büring (2006): “If a constituent is not GIVEN, it must be prominent” (i.e., not D-marked), cf. Sauerland (2005) for Givenness-features.

As there is no focus, Givenness is simplified:

- An utterance U is GIVEN₃ if it has a salient antecedent A such that
  1. If U refers to an entity, then U and A corefer;
  2. otherwise, A entails the existential closure of U.

D-marking results in deaccentuation, which implies accentuation of sister constituents:

(14) a. \([\text{praised Jóhn}]\): \([\text{praised}₃ \text{John}]\)
    b. \([\text{práised John}]\): \([\text{praised John}₃]\)

Simple projection rule for D-marking:

- If all the subconstituents of a complex constituent are D-marked, then this constituent is
  D-marked. That is, \([α₃ β₃]\) ⇒ \([α₃ β₃]₃\).

But additional rules will be necessary.
An example in which an argument is not given:

(15) A: *Who did Mary praise?*  Presupp: $\exists x [\text{PRAISED}(x)(\text{MARY}) \land \text{PERSON}(x)]$
B: $[\text{She}_D \ [\text{praised}_D \ Jóhn]]$.

<table>
<thead>
<tr>
<th>Constituent</th>
<th>D?</th>
<th>Ex. Closure</th>
<th>GIVEN_D?</th>
<th>o.k.?</th>
</tr>
</thead>
<tbody>
<tr>
<td>$[\text{She}_D \ [\text{praised}_D \ Jóhn]]$</td>
<td>no</td>
<td>PRAISED(JOHN)(MARY)</td>
<td>no</td>
<td>✗</td>
</tr>
<tr>
<td>$\text{She}_D$</td>
<td>yes</td>
<td>n.a.</td>
<td>yes</td>
<td>✗</td>
</tr>
<tr>
<td>$[\text{praised}_D \ Jóhn]$</td>
<td>no</td>
<td>$\exists x [\text{PRAISED}(JOHN)(x)]$</td>
<td>no</td>
<td>✗</td>
</tr>
<tr>
<td>$\text{praised}_D$</td>
<td>yes</td>
<td>$\exists y \exists x [\text{PRAISED}(x)(y)]$</td>
<td>yes</td>
<td>✗</td>
</tr>
<tr>
<td>$\text{Jóhn}$</td>
<td>no</td>
<td>n.a.</td>
<td>yes</td>
<td>✗</td>
</tr>
</tbody>
</table>

Less D-marking would violate DEACCENT!
Additional D-marking is not possible:

$[\text{She}_D \ [\text{praised}_D \ \text{John}_D]]_D$  yes  PRAISED(JOHN)(MARY)  no  ✗
An example with an accented constituent that is given:

(16) A: Who did John’s mother praise?
    Presupp: \( \exists x [\text{PRAISED}(x)(\text{MOTHER}(\text{JOHN}))] \)
    B: \([\text{She}_D \ [\text{praised}_D \ \text{him}]])\)

<table>
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<tr>
<th>Constituent</th>
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<th>Ex. Closure</th>
<th>GIVEN(D)?</th>
<th>o.k.?</th>
</tr>
</thead>
<tbody>
<tr>
<td>([\text{She}_D \ [\text{praised}_D \ \text{him}]]))</td>
<td>no</td>
<td>PRAISED(JOHN)(MOTHER(JOHN))</td>
<td>no</td>
<td>✗</td>
</tr>
<tr>
<td>\text{She}_D</td>
<td>yes</td>
<td>n.a.</td>
<td>yes</td>
<td>✗</td>
</tr>
<tr>
<td>([\text{praised}_D \ \text{him}])</td>
<td>no</td>
<td>(\exists x [\text{PRAISED}(\text{JOHN})(x)])</td>
<td>yes</td>
<td>✗</td>
</tr>
<tr>
<td>\text{praised}_D</td>
<td>yes</td>
<td>(\exists y \exists x [\text{PRAISED}(x)(y)])</td>
<td>yes</td>
<td>✗</td>
</tr>
<tr>
<td>\text{him}</td>
<td>no</td>
<td>n.a.</td>
<td>no</td>
<td>✗</td>
</tr>
</tbody>
</table>

Less D-marking would violate DEACCENT!
Additional D-marking is not possible:

\([\text{She}_D \ [\text{praised}_D \ \text{him}_D]_D]_D\) yes PRAISED(JOHN)(MOTHER(JOHN)) no ✗

**But different D-marking is possible:**

\([\text{She}_D \ [\text{praised}_D \ \text{him}_D]]\) no PRAISED(JOHN)(MOTHER(JOHN)) no ✗
\([\text{praised}_D \ \text{him}_D]\) no \(\exists x [\text{PRAISED}(\text{JOHN})(x)]\) yes ✗

Hence the rules developed so far make wrong predictions.
Additional assumption

Require that the disjunctive closure over non-D-marked constituents is entailed by the context. (Note that this comes close to reintroducing the concept of focus!).

We can define this with the tools of Hamblin (1970) / Rooth (1985) for Alternative Semantics.

(17) a. Ordinary interpretation of \( \alpha \): \( \| \alpha \| \).
    b. Alternative interpretation of \( \alpha \): \( \| \alpha \|_A \), a set of ordinary interpretations.

(18) a. Interpretation of D-marked expressions \( \alpha_D \):
    \( \| \alpha_D \|_A = \{ \| \alpha \| \} \), singleton set of ordinary interpretations.
    b. Interpretation of non-D-marked expressions \( \alpha \):
    \( \| \alpha \|_A = D_{\text{type}(\alpha)} \), the domain of the type of \( \alpha \).
    c. Interpretation of complex expressions:
    If \( \| [\alpha \beta] \| = f(\| \alpha \|, \| \beta \|) \), then \( \| [\alpha \beta] \|_A = \{ f(X, Y) | X \in \| \alpha \|_A, Y \in \| \beta \|_A \} \)

Additional rule of entailment of disjunctive closure:

➢ For every expression \( \alpha \) of type t,
    the disjunctive closure \( DC(\alpha) = \bigvee \| \alpha \|_A \) is entailed by the context.

With this additional restriction, we have:

(19) \( DC([She_D [\text{praised}_D \text{ him}]])) = \exists x[\text{PRAISED}(x)(\text{MOTHER}(\text{JOHN}))] \)
    is entailed by presupposition of (16)

(20) \( DC([She_D [\text{praised} \text{ him}_D]]) = \exists R[\text{R}(\text{JOHN})(\text{MOTHER}(\text{JOHN}))] \)
    is not entailed by presupposition of (16).
Further examples

- Broad (VP) focus:

(21) A: *What did Mary do?* Presupp: \( \exists P [P(MARY) \land \text{ACTIVITY}(P)] \)

B: \([\text{She}_D \ [\text{praised Jón}]]\)

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>([\text{She}_D \ [\text{praised John}]])</td>
<td>no</td>
<td>PRAISED(JOHN)(MARY)</td>
<td>no</td>
<td>🏷️</td>
</tr>
<tr>
<td>(\text{She}_D)</td>
<td>yes</td>
<td>n.a.</td>
<td>yes</td>
<td>🏷️</td>
</tr>
<tr>
<td>([\text{praised John}])</td>
<td>no</td>
<td>(\exists x [\text{PRAISED}(JOHN)(x)])</td>
<td>no</td>
<td>🏷️</td>
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Additional D-marking is not possible:

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</thead>
<tbody>
<tr>
<td>([\text{praised John}_D])</td>
<td>no</td>
<td>(\exists x [\text{PRAISED}(JOHN)(x)])</td>
<td>no</td>
<td>🏷️</td>
</tr>
<tr>
<td>(\text{John}_D)</td>
<td>yes</td>
<td>n.a.</td>
<td>no</td>
<td>🏷️</td>
</tr>
<tr>
<td>([\text{praised}_D \ Jón})</td>
<td>no</td>
<td>(\exists x [\text{PRAISED}(JOHN)(x)])</td>
<td>no</td>
<td>🏷️</td>
</tr>
<tr>
<td>(\text{praised}_D)</td>
<td>yes</td>
<td>(\exists y \exists x [\text{PRAISED}(x)(y)])</td>
<td>no</td>
<td>🏷️</td>
</tr>
</tbody>
</table>

Also, entailment of disjunctive closure is satisfied:

\[ \text{DC}([\text{She}_D \ [\text{praised Jón}]]) = \exists P [P(MARY)], \text{is entailed by presupposition.} \]
Account for Argument/Head asymmetry

In the treatment of example (21), *What did Mary do? – She[D/praised Jóhn]*, nothing predicts accentuation of *John* (or deaccentuation of *praised*). We need some equivalent to the rule of focus projection from the argument, e.g.:

- D-mark the Head: If in a constituent \([\alpha \beta]\) with a head and an internal argument neither \(\alpha\) nor \(\beta\) are D-marked, then D-mark the head!

Problem when combined with GIVENness\(_D\), as it is then required that the head \(\alpha\) is GIVEN\(_D\).

Two options:
(i) D-mark the Head is applied after GIVENness\(_D\).
(ii) We assume a rule of **d-marking:**

- d-mark the Head: If in a constituent \([\alpha \beta]\) with a head and an internal argument neither \(\alpha\) nor \(\beta\) are D-marked, then d-mark the head!

(22) A: *What did Mary do?*
    B: \([\text{She}_D [\text{praised}_D \text{Jóhn}]]\)

More general formulation of d-marking:

- d-mark the Head: If in a constituent \([\alpha \beta]\) with a head and an internal argument both \(\alpha\) and \(\beta\) have the same status as to D-marking, then d-mark the head!

(23) A: *What did Mary do after she praised John?*
    B: \([\text{she}_D [\text{praised}_{D,d} \text{Jóhn}_D]]_D, \text{ she gave him a kiss.}\)
Additional examples

(24) A: *What did John’s mother do?*  
Pres: $\exists P [ P(\text{MOTHER}(\text{JOHN})) \land \text{ACTIVITY}(P) ]$

B: $[\text{She}_D [\text{praised him}_D]]$

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</tr>
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<tbody>
<tr>
<td>$[\text{She}_D [\text{praised him}_D]]$</td>
<td>no</td>
<td>PRAISED(John)(Mary)</td>
<td>no</td>
<td>$\checkmark$</td>
</tr>
<tr>
<td>$\text{She}_D$</td>
<td>yes</td>
<td>n.a.</td>
<td>yes</td>
<td>$\checkmark$</td>
</tr>
<tr>
<td>$\text{him}_D$</td>
<td>yes</td>
<td>n.a.</td>
<td>yes</td>
<td>$\checkmark$</td>
</tr>
<tr>
<td><em>praised</em></td>
<td>no</td>
<td>$\exists y \exists x [\text{PRAISED}(x)(y)]$</td>
<td>no</td>
<td>$\checkmark$</td>
</tr>
<tr>
<td>$[\text{praised him}_D]$</td>
<td>no</td>
<td>$\exists x [\text{PRAISED}(\text{JOHN})(x)]$</td>
<td>no</td>
<td>$\checkmark$</td>
</tr>
</tbody>
</table>
(25) *First John called Bill a Republican,  Enactment: INSULT(BILL)(JOHN)*
and then [Bill [insulted$_D$ Jóhn]]

<table>
<thead>
<tr>
<th>Constituent</th>
<th>D?</th>
<th>Ex. Closure</th>
<th>GIVEN$_D$?</th>
<th>o.k.?</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Bill [insulted$_D$ Jóhn]]</td>
<td>no</td>
<td>INSULT(JOHN)(BILL)</td>
<td>no</td>
<td>✅</td>
</tr>
<tr>
<td>insulted$_D$</td>
<td>yes</td>
<td>∃y∃x[INSULT(x)(y)]</td>
<td>yes</td>
<td>✅</td>
</tr>
<tr>
<td>Bill; John</td>
<td>no</td>
<td>n.a.</td>
<td>yes</td>
<td>✅</td>
</tr>
</tbody>
</table>

Additional D-marking is not possible:

<table>
<thead>
<tr>
<th>Constituent</th>
<th>D?</th>
<th>Ex. Closure</th>
<th>GIVEN$_D$?</th>
<th>o.k.?</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Bill [insulted$_D$ John$_D$]]$_D$</td>
<td>no</td>
<td>INSULT(JOHN)(BILL)</td>
<td>no</td>
<td>✅</td>
</tr>
<tr>
<td>[insulted$_D$ John$_D$]$_D$</td>
<td>yes</td>
<td>∃x[INSULT(JOHN)(x)]</td>
<td>no</td>
<td>✅</td>
</tr>
</tbody>
</table>

But deaccenting *Bill* is possible:

<table>
<thead>
<tr>
<th>Constituent</th>
<th>D?</th>
<th>Ex. Closure</th>
<th>GIVEN$_D$?</th>
<th>o.k.?</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Bill$_D$ [insulted$_D$ Jóhn]]</td>
<td>no</td>
<td>INSULT(JOHN)(BILL)</td>
<td>no</td>
<td>✅</td>
</tr>
</tbody>
</table>

This option is filtered out by entailment of disjunctive closure:

DC([Bill$_D$ [insulted$_D$ Jóhn]]) = ∃x[INSULTED(x)(BILL)], not entailed by context.
4. Schwarzschild (1999) and Givenness theory: A Comparison

- Givenness theory allows for a positive formulation \([\text{D-mark}(\alpha) \rightarrow \text{GIVEN}_D(\alpha)]\), instead of the negative formulation \([\neg \text{F-mark}(\alpha) \rightarrow \text{GIVEN}(\alpha)]\).

- Givenness theory relies on a simpler concept of Givenness, \(\text{GIVEN}_D\), which does not refer to the \(\text{F}\)-feature at all (in fact, there is no \(\text{F}\)-feature).

- Givenness theory might be considered more complex because it has to resort to either rule-ordering or a second feature \(d\) to deal with focus projection cases. But this rule replaces Selkirk’s focus projection rules. And Schwarzschild needs an additional rule as well to prevent the accent structure as in in (26), and in the end has to resort to a violable constraint saying that heads are less prominent than arguments.

(26) A: *What did Mary do?* B: [She [\text{praised}_F \text{Jóhn}_F]_F] (with superfluous accent on *praised*).

- \text{AVOID}_F\text{ and DEACCENT!} are about equally complex, and equally well motivated (avoid linguistic complexity, or maximize presuppositions, cf. Heim 1991).

- Givenness theory is more complex insofar it has to appeal to entailment of disjunctive closure as an additional rule, which introduces a concept similar to focus.
➢ Treatment of nonaccentable items like *someone*:

(27) A: *What did Mary do?*

B: *[She [*praised*F *someone*]F]*

Schwarzschild: Following *GIVEN*ness, *someone* should be *GIVEN*. Existential closure yields

\[ \exists \text{P}[\text{PERSON} \cap \text{P} \neq \emptyset], \]

which is true iff there is at least one person. This is problematic in cases like:

(28) A: *What did the dog do?*

B: *[It [*bít*F *someone*]F]*

(29) A: *What happened?*

B: *[PéterF [*came in*]F]F* vs. *[Someone [*came in*]F]F*.

Perhaps we can assume that *someone* does not allow for the expression of accent?

Givenness theory: Stipulate that *someone* has the feature d in its lexical specification.

(30) A: *What did Mary do?*

B: *[SheD [*praised someone*]d]*
Focus projected from embedded constituents, in Schwarzschild’s analysis.

(31) A: John drove Mary’s red convertible. What did he drive before that?
   B: [He [drove [her blùe\textsubscript{F} convertible]]]

The F-closure, that John drove a convertible, is given in this context. But this is a pure coincidence of the chosen context.

(32) Mary drove her red convertible. What did John drive?
   He drove her blùe convertible.

The F-closure of the answer is not given, as the context does not entail that John drove a convertible. Yet the same focus structure is required in this context.

Analysis in Givenness theory:

(33) B: [He\textsubscript{D} [drove\textsubscript{D} [her\textsubscript{D} blùe convertible\textsubscript{D}]]]

The D-markings are justified: There are salient antecedents for he and her; drove is GIVEN\textsubscript{D} because the context entails \(\exists x \exists y [\text{DROVE}(x)(y)]\); and convertible is given as the context entails \(\exists x [\text{CONVERTIBLE}(x)]\).
5. Problems for the Givenness Theory (and for Schwarzschild)

Deaccentuation in the absence of GIVEN(D)ness

(34) *As there aren’t any red convertibles anymore, John drove a blue convertible.*
From the first clause it does not follow that there are convertibles, but both Schwarzschild’s theory and the Givenness theory require that there is one.
This suggests that convertible is not GIVEN(D) because its existential closure follows from the context, but simply because the concept ‘convertible’ has been mentioned before.

(35) *As none of her friends stood up, Máry stood up.*
Stood up is deaccented, although it is not GIVEN(D), but it has been mentioned before.

(36) A: *Who, if anybody, praised John?*
    B: Máry praised him.

Praised him is not GIVEN(D), as the question is not presupposing, but it is mentioned before.
This leads to a reconstruction of givennness in terms of Rochemont’s c-construability.

Problem of Givenness as being mentioned previously:

(37) A: *Who did Mary praise, Bill or John?*
    B: Mary praised John.

Rochemont: A special type of focus, contrastive focus. But there is no evidence that restricted constituent questions are contrastive.
Givenness Theory, and Schwarzschild, unable to capture restrictions in questions

(38) A: *What did Mary praise?*

    Presupposition: \( \exists x [\text{PRAISED}(x)(\text{MARY}) \land \text{THING}(x)] \)

    B: *She praised Jóhn.*

The answer is ungrammatical, but neither Givenness theory nor Schwarzschild’s theory predict this:

- Schwarzschild:
  
  \[ \text{She} \ [\text{praised Jóhn}_F] \].

  F-closure: \( \exists x [\text{PRAISED}(x)(\text{MARY})] \), entailed by presupposition.

- Givenness theory:
  
  \[ \text{She}_D \ [\text{praised}_D \ Jóhn] \];

  she and praised are given; disjunctive closure \( \exists x \exists y [\text{PRAISED}(x)(y)] \) entailed by presupposition.
6. How Focus Accenting and Givenness Deaccenting Interact

Assume a theory with both F-marking and D-marking (as in Féry & Samek-Lodovici 2006):
- F-marking indicates the presence of focus alternatives
- D-marking indicates givenness

**Alternatives** are used in question-answer pairs to express congruence of answer to question.

Implementation in structured meaning account (cf. Krifka 2006):

(39) A: *Who did Mary praise?*  \(\langle \lambda x [PRAISED(x)(MARY)], \text{PERSON}, * \rangle\)

B: *Mary praised John*.  \(\langle \lambda x [PRAISED(x)(MARY)], \text{A, JOHN} \rangle\)

The question has an empty focus, *, as the question word *who* just identifies the set of alternatives. The answer has a variable A for the alternative set, as this is determined by the context.

(39.A-B) is a coherent question-answer pair, as
- the backgrounds are identical,
- the identification of the alternative sets PERSON = A is possible,
- and JOHN \(\in\) A holds.

**Givenness** is not expressed based on entailment of existential (F)-closure, due to problems with examples like (34) (*As there aren’t any red convertibles anymore, John drove a blue convertible*). We have to use a wider notion, such as Rochemont’s c-construability.
Focus and Givenness are expressed in simple but contradictory ways:

- **FOCUS-ACCENT** (to be revised): If a constituent is in Focus, it bears Accent
- **GIVEN-DEACCENT**: If a constituent is Given, it is Deaccented.

FOCUS-ACCENT outranks GIVEN-DEACCENT (cf. Féry & Samek-Lodovici 2006). Hence an expression in focus that is given must be accented:

(40) A: *Who did Mary praise?*
    B: *She\textsubscript{D} praised\textsubscript{D} [him\textsubscript{D}]\textsubscript{F}*

FOCUS-ACCENT as stated in *Fehler! Verweisquelle konnte nicht gefunden werden.*) is fairly unspecific, as it does not indicate how Accent is realized in complex constructions.

Gussenhoven (1983), Selkirk (1984): distinguish between head-argument constructions, which are often realized by one accent, and others such as head-adjunct constructions or coordination constructions, which are realized by multiple accent. Treatment by phonological phrase formation, cf. Gussenhoven 1983, Jacobs 1991, Truckenbrodt 1999 and others):

- Each phonological phrase bears an accent
- Head-Argument constructions may form a phonological phrase, Head-Adjunct ones don’t.
- Phonological phrases that are focused get a stronger accent.
7. Head/Argument Asymmetry in so-called Focus Projection

Accent patterns for Head/Argument constructions:

(41) A: *What did Mary do?*
    B: *She [praised Jóhn]F_*

➢ **ACCENT-ARGUMENT:** If an integrated constituent consisting of a head and an argument bears accent, then accent is realized on the argument.


**ACCENT-ARGUMENT** rule is ranked lower than **FOCUS-ACCENT** or **GIVEN-DEACCENT**:

(42) A: *What did Mary do?*
    B: *SheD [praised Jóhn]F*.

(43) A: *What did John’s mother do?*
    B: *SheD [praised himD]*.

In (43) accent has to be realized, due to **FOCUS-ACCENT**, but cannot be realized on *him* due to **DEACCENT-GIVEN**, and hence has to be realized on *praised*.

In case both constituents are given, then **ACCENT-ARGUMENT** re-emerges:

(44) A: *Did you prepare a meal, or offer a drink?* B: *I [offeredD [a drink]D]F*
Why head/argument asymmetry?
The view that DEACCENT-GIVEN counteracts ACCENT-ARGUMENT offers a way to understand why we have a rule like ACCENT-ARGUMENT to begin with – why accent by default percolates to the argument, and not the head.

- If accent is expressed on the argument by default, deaccenting can be used to express givenness of arguments;
  if accent is expressed on the head by default, deaccenting can be used to express givenness of heads.

- Plausible assumption (to be verified in linguistic corpora):
  Referential expressions are more often Given than non-referential ones;
  i.e. verbal arguments are more often Given than verbal heads.

- It is good to express Givenness
- Consequentially, it is better to express accent on the argument, because then Givenness can be expressed in more cases (by deaccenting).
- This explains also why we have definite/indefinite articles for NPs, but not for verbs.
This argumentation can be extended from head/argument asymmetry in verbal constructions to head/argument asymmetry in prespositional constructions:

(45) German: \[
\text{PP [NP } \text{der Kinder} \text{] [P wegen]} \\
\text{PP [P wegen] [NP der Kinder]} 
\]

But it does not hold for nominal head/argument constructions, where accent percolates to the last constituent:

(46) a. [John’s [móther]]
    b. [[the mother] [of Jóhn]]

Explanation: In this case both head and argument are referential, and (roughly) equally likely to be given.
Hence there is no functional need to have a default accent that favours one or the other, and a general tendency of late accent assignment (nuclear stress rule) prevails.
8. References


Rooth, Mats (1985), *Association With Focus*, Diss., University of Massachusetts at Amherst.

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References