

Focus Marking, Focus Interpretation & Focus Sensitivity

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**Focus-sensitive particles and
quantificational adverbs**

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1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

- **Schedule:**

- i. The formal representation of focus
- ii. The discourse-anaphoric nature of focus
- iii. The meaning of marked focus constructions
- iv. FOC-particles and Q-Adverbs
- v. Extensions and case studies

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

- **Plan for today:**
 - i. Exclusive particles: ONLY in English and German
 - ii. Additive particles: ALSO/TOO and EVEN
 - iii. The focus-sensitivity of adverbial quantifiers

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

i. Exclusive particles: **ONLY** in English and German

(1) John *only* introduced **BILL_F** to Sue.

ii. Additive particles: **ALSO/TOO** and **EVEN**

(2) John *also* introduced **BILL_F** to Sue.

(3) John *even* introduced **BILL_F** to Sue.

iii. The focus-sensitivity of adverbial quantifiers

(4) **JOHN_F** *always* introduced his friends to his parents.

(5) John *always* introduced **HIS FRIENDS_F** to his parents.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

- i. Exclusive particles: ONLY in English and German
 - (1) John *only* introduced **BILL_F** to Sue.

- ii. Additive particles: ALSO/TOO and EVEN
 - (2) John *also* introduced **BILL_F** to Sue.
 - (3) John *even* introduced **BILL_F** to Sue.

- iii. The focus-sensitivity of adverbial quantifiers
 - (4) **JOHN_F** *always* introduced his friends to his parents.
 - (5) John *always* introduced **HIS FRIENDS_F** to his parents.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

- i. Exclusive particles: ONLY in English and German
 - (1) John *only* introduced **BILL_F** to Sue.

- ii. Additive particles: ALSO/TOO and EVEN
 - (2) John *also* introduced **BILL_F** to Sue.
 - (3) John *even* introduced **BILL_F** to Sue.

- iii. The focus-sensitivity of adverbial quantifiers
 - (4) **JOHN_F** *always* introduced his friends to his parents.
 - (5) John *always* introduced **HIS FRIENDS_F** to his parents.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

**The meaning of *only* with the \sim operator
(Rooth 1992, 1996) (cf. # 48/Tuesday)**

(6) John only introduced **BILL_F** to Sue.

LF: [_S only **C** [_S [_S John introduced **BILL_F** to Sue] \sim **C**]]

(7) $[[\text{only}]] = \lambda C. \lambda p. \forall q [q \in C \wedge \forall q \leftrightarrow q = p]$

➤ Tri-partite quantificational structure:

only(C)(S)

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Simplified SM format for today:

(8) John only introduced **BILL_F** to Sue.

(9) a. $\neg\exists x [x \in \text{ALT}_C \wedge x \neq \text{Bill} \wedge$
John introduced x to Sue = 1]

b. $\forall x [x \in \text{ALT}_C \wedge$
John introduced x to Sue = 1 $\rightarrow x = \text{Bill}]$

where ALT_C is the set of C-restricted alternatives to the focus value

(10) ONLY (FOC) (BACKGROUND)

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Simplified SM format for today:

(11) John only introduced **BILL_F** to Sue.

(12) Lexical entry of *only* I:

$[[\text{only}]] =$

$\lambda x_{\langle \tau \rangle} . \lambda P_{\langle \tau, t \rangle} . \neg \exists y_{\langle \tau \rangle} [y \in \text{ALT}_C \wedge y \neq x \wedge P(y) = 1]$

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Simplified SM format for today:

(13) John only introduced **BILL**_F to Sue.

(13a') Sample calculation I

$$\begin{aligned} & [[\text{only}]] (\text{Bill}) (\lambda x . \text{John intr. } x \text{ to Sue}) \\ &= [\lambda x_{\langle \tau \rangle} . \lambda P_{\langle \tau, t \rangle} . \neg \exists y_{\langle \tau \rangle} [y \in \text{ALT}_C \wedge y \neq x \wedge P(y) = 1]] \\ & \quad (\text{Bill}) (\lambda x . \text{John intr. } x \text{ to Sue}) \\ &= \lambda P_{\langle \tau, t \rangle} . \neg \exists y_{\langle \tau \rangle} [y \in \text{ALT}_C \wedge y \neq \text{Bill} \wedge P(y) = 1] \\ & \quad (\lambda x . \text{John intr. } x \text{ to Sue}) \\ &= \neg \exists y_{\langle \tau \rangle} [y \in \text{ALT}_C \wedge y \neq \text{Bill} \wedge \text{John intr. } x \text{ to Sue}] \end{aligned}$$

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Simplified SM format for today:

(14) John only introduced **BILL_F** to Sue.

(15) Lexical entry of *only* II:

$[[\text{only}]] =$

$\lambda x_{\langle \tau \rangle}. \lambda P_{\langle \tau, t \rangle}. \forall y_{\langle \tau \rangle} [y \in \text{ALT}_C \wedge P(y) = 1 \leftrightarrow y = x]$

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Simplified SM format for today:

(16) John only introduced **BILL**_F to Sue.

(16a') Sample calculation II

$$\begin{aligned} & [[\text{only}]] (\text{Bill}) (\lambda x . \text{John intr. } x \text{ to Sue}) \\ &= [\lambda x_{\langle \tau \rangle} . \lambda P_{\langle \tau, t \rangle} . \forall y_{\langle \tau \rangle} [y \in \text{ALT}_C \wedge P(y) = 1 \leftrightarrow y = x]] \\ & \quad (\text{Bill}) (\lambda x . \text{John intr. } x \text{ to Sue}) \\ &= \lambda P_{\langle \tau, t \rangle} . \forall y_{\langle \tau \rangle} [y \in \text{ALT}_C \wedge P(y) = 1 \leftrightarrow y = \text{Bill}] \\ & \quad (\lambda x . \text{John intr. } x \text{ to Sue}) \\ &= \forall y_{\langle \tau \rangle} [y \in \text{ALT}_C \wedge \text{John int. } y \text{ to Sue} \leftrightarrow y = \text{Bill}] \end{aligned}$$

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

- A. Entailment vs. presupposition(?) of *only*
- B. Scalar vs. non-scalar readings of *only*
- C. Evaluational vs. non-evaluational readings of *only*
- D. Scope issues and syntax

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

A. Entailment vs. presupposition(?) of *only*

- The exclusion of alternatives found with *only* is an entailment.

It is unstable under negation...

- (17) Paul didn't only **PLAY CARDS_F**.
→ Paul did nothing apart from card-playing.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

A. Entailment vs. presupposition(?) of *only*

- The exclusion of alternatives found with *only* is an entailment.

It is unstable under negation...

...and in antecedents of conditionals.

(18) If Paul only **PLAYS CARDS_F**, he'll fail the exam..

⇒ Paul did nothing apart from card-playing.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

A. Entailment vs. presupposition(?) of *only*

- But what about Paul's card-playing?

(19) Paul only **PLAYS CARDS**_F

⇒ 'Paul does nothing apart from card-playing.'

⊠? 'Paul plays cards.'

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

A. Entailment vs. presupposition(?) of *only*

- But what about Paul's card-playing?

(20) Paul only **PLAYS CARDS**_F

⊠ 'Paul plays cards.'

⊠ = presupposes?

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

A. Entailment vs. presupposition(?) of *only*

- But what about Paul's card-playing?

„The semantics for *only* says this: it asserts that no proposition from the set of relevant contrasts C other than the one expressed by its sister sentence α is true. There is in addition an implicature that α is in fact true. There is an industry devoted to the issue whether the latter ingredient is an implicature (conversational or conventional), a presupposition, or part of the truth-conditions [...] For our purposes, we don't need to decide.“

(von Fintel 1994: 133)

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

A. Entailment vs. presupposition(?) of *only*

- Evidence for presupposition

(21) Paul only **PLAYS CARDS_F**
presupposes? ‘Paul plays cards.’

(22) Stability under negation

It is not the case that Paul only **PLAYS
CARDS.**

‘Paul plays cards.’

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

A. Entailment vs. presupposition(?) of *only*

- Evidence against presupposition

(23) Paul only **PLAYS CARDS**_F
presupposes? ‘Paul plays cards.’

(24) Instability in antecedents of conditionals
If Paul only **PLAYS CARDS**, he’ll fail the
exam. / _____ / _____ / _____ / _____ / _____ /
‘Paul plays cards.’

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

A. Entailment vs. presupposition(?) of *only*

What counts more?

- **Evidence for presupposition**

stability under negation

- **Evidence against presupposition**

instability in antecedents of conditionals

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

A. Entailment vs. presupposition(?) of *only*

What counts more?

- **Evidence for presupposition**

stability under negation

- **Evidence against presupposition**

instability in antecedents of conditionals

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

A. Entailment vs. presupposition(?) of *only*

**Q: Why does the evidence against
presupposition count more?**

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

A. Entailment vs. presupposition(?) of *only*

Q: Why does the **evidence against presupposition** count more?

A: Because Test I, embedding under negation, is itself focus-sensitive;
Test II, embedding in antecedents of conditionals, is not.

The focus sensitivity of negation is probably a confounding factor.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

B. Scalar vs. non-scalar readings of *only*

- *Only* may, but need not, interact with scales.

(25) Paul only had a cup of tea, and nothing else.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

B. Scalar vs. non-scalar readings of *only*

- *Only* may, but need not, interact with scales.

(26) Paul only had a cup of tea, **and nothing else**.

(27) Paul only had a cup of tea, **and no more**.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

B. Scalar vs. non-scalar readings of *only*

- *Only* may, but need not, interact with scales.

Implementation I: *only*_{SC} vs. *only*_{non-SC}

$$(28) [[only_{non-SC}]] = \neg \exists x [x \in ALT_C \wedge x \neq [[FOC]] \wedge [[BG]](x) = 1]$$

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

B. Scalar vs. non-scalar readings of *only*

- *Only* may, but need not, interact with scales.

Implementation I: $only_{SC}$ vs. $only_{non-SC}$

$$(29) \quad [[only_{non-SC}]] = \neg \exists x [x \in ALT_C \wedge x \neq [[FOC]] \wedge [[BG]](x) = 1]$$

$$(30) \quad [[only_{SC}]] = \neg \exists x [x \in ALT_C \wedge x > \mathbf{value}_{SC}([[FOC]]) \wedge [[BG]](x) = 1]$$

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

B. Scalar vs. non-scalar readings of *only*

- *Only* may, but need not, interact with scales.

Implementation II: *Only* is always scalar, but there are unordered scales such that, with such scales, each alternative is mapped to the same scalar value (Jacobs 1983).

$$(31) \quad [[only_{SC2}]] = \neg \exists x [x \in ALT_C \wedge x \geq \mathbf{value}_{SC}([FOC]) \wedge [[BG]](x) = 1]$$

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

B. Scalar vs. non-scalar readings of *only*

- Datawise, we seem to need obligatory reference to scales with individual exclusive particles.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

B. Scalar vs. non-scalar readings of *only*

- Datawise, we seem to need obligatory reference to scales with individual exclusive particles.

(32) Chinese *zhǐ* vs. *cái* I

- a. Wǒ **zhǐ** yǒu yìbǎi kuài qián ...
 I only have 100 \$ money
 ‘I only have 100 \$...’
- b. ... méi yǒu liǎngbǎi kuài.
 not have 200 \$
 ‘... and not 200 \$.’
- b’. ... méi yǒu biéde dōngxi.
 not have other things
 ‘... and not other things.’

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

B. Scalar vs. non-scalar readings of *only*

- Datawise, we seem to need obligatory reference to scales with individual exclusive particles.

(33) Chinese *zhǐ* vs. *cái* II

- a. Wǒ **cái** yǒu yìbǎi kuài qián ...
 I only_{sc} have 100 \$ money
 ‘I only have 100 \$...’
- b. ... méi yǒu liǎngbǎi kuài.
 not have 200 \$
 ‘... and not 200 \$.’
- b’. # ... méi yǒu biéde dōngxi.
 not have other things
 ‘... and not other things.’

Thanks go to Jin CUI for help with this data!

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

B. Scalar vs. non-scalar readings of *only*

- Datawise, we seem to need obligatory reference to scales with individual exclusive particles.

(34) German *nur* vs. *erst* (König 1979):
reference to a temporal scale

- a. Ich habe **nur** einen Apfel gegessen.
'I've only eaten an apple.'
- b. Ich habe **erst** einen Apfel gegessen.
'I've only eaten an apple **so far**.'

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

B. Scalar vs. non-scalar readings of *only*

Conclusions about exclusive particles and scalarity:

- Individual particles definitely encompass scalar meaning components (examples are Chinese *cái* or German *erst*).

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

B. Scalar vs. non-scalar readings of *only*

Conclusions about exclusive particles and scalarity:

- Individual particles definitely encompass scalar meaning components (examples are Chinese *cái* or German *erst*).
- Whether English *only* should be analyzed as polysemous, or underspecified, or vague with respect to scalarity may be independent of the German and Chinese facts.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

B. Scalar vs. non-scalar readings of *only*

Conclusions about exclusive particles and scalarity:

- Individual particles definitely encompass scalar meaning components (examples are Chinese *cái* or German *erst*).
- Whether English *only* should be analyzed as polysemous, or underspecified, or vague with respect to scalarity may be independent of the German and Chinese facts.
- Our(?) hunch: underspecification

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

C. Evaluational vs. non-evaluational readings of *only*

- Exclusive particles like *only* may, but need not, have evaluational meaning components.

(35) Paul is only a plumber.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

C. Evaluational vs. non-evaluational readings of *only*

- Exclusive particles like *only* may, but need not, have evaluational meaning components.

„The value of the focus is characterised as ranking [...] ‘low’ on some relevant scale.“ (König 1991: 43)

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

C. Evaluational vs. non-evaluational readings of *only*

- Exclusive particles like *only* may, but need not, have evaluational meaning components.

„Exclusives have a peculiar duality that seems almost paradoxical. Positive and negative. At one and the same time, they can add emphasis, by saying that some alternative is the strongest that is true, and they can downtone, by underlining the fact that the alternative is not the strongest that in principle might have been the case. We suggest that while exclusives have truth conditional effects, their function is partly MIRATIVE, to say that the true answer to the Current Question is surprisingly weak, and control the flow of discourse by resetting expectations about that answer.“
(Beaver & Clark 2008: 10.2)

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

C. Evaluational vs. non-evaluational readings of *only*

- Exclusive particles like *only* may, but need not, have evaluational meaning components.

(36) Paul is only a **plumber_F**.
‘Being a plumber is (too) little.’
‘Being a plumber is bad.’

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

C. Evaluational vs. non-evaluational readings of *only*

- Exclusive particles like *only* may, but need not, have evaluational meaning components.
- Is this a conversational implicature, or something semantic (presupposition/entailment)?

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

C. Evaluational vs. non-evaluational readings of *only*

- Exclusive particles like *only* may, but need not, have evaluational meaning components.
- Evidence for semantic basis I:
Speakers are aware of this meaning component and often aim at controlling it

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

C. Evaluational vs. non-evaluational readings of *only*

- Exclusive particles like *only* may, but need not, have evaluational meaning components.
- Evidence for semantic basis I:
Speakers are aware of this meaning component and often aim at controlling it.

(37) Paul is “only” a plumber.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

C. Evaluational vs. non-evaluational readings of *only*

- Exclusive particles like *only* may, but need not, have evaluational meaning components.
- Evidence for semantic basis II:
There are contexts in which evaluational meaning components are fully blocked (Hole 2009).

(38) causal vs. *if*-subordination

- a. 🚫 I'm supposed to move out of my study **only because** your mother's coming?
- b. 😊 I'm supposed to move out of my study **only if** your mother's coming?

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

C. Evaluational vs. non-evaluational readings of *only*

- Exclusive particles like *only* may, but need not, have evaluational meaning components.
- Evidence for semantic basis II:
There are contexts in which evaluational meaning components are fully blocked (Hole 2009).

(39) causal vs. circumstantial prepositions

- a. 💣 It's **only because of** a famine in a remote country that he wants to leave his family.
- b. 😊 It's **only in case of** a famine in a remote country that he wants to leave his family.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

C. Evaluational vs. non-evaluational readings of *only*

- Exclusive particles like *only* may, but need not, have evaluational meaning components.
- Evidence for semantic basis II:
There are contexts in which evaluational meaning components are fully blocked (Hole 2009).

(40) causal vs. sequential *just to*

- a. 💣 He ran away from his family **just to** help the poor.
- b. 😊 He ran away from his family **just to** end up in the gutter soon after.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

C. Evaluational vs. non-evaluational readings of *only*

- Exclusive particles like *only* may, but need not, have evaluational meaning components.
- Evidence for semantic basis II:
There are contexts in which evaluational meaning components are fully blocked (Hole 2009).
- If evaluation were a mere conversational implicature, it shouldn't be possible to block it.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

- English probably has adverbial and ad-DP *only*...

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

- English probably has adverbial and ad-DP *only*...
- ... where German has been argued to have just adverbial *nur* (Büring & Hartmann 2001)

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

Taglicht (1984), von Stechow (1991)

(41) Taglicht-sentences

They were advised to study only **SPANISH**.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

Taglicht (1984), von Stechow (1991)

(41) Taglicht-sentences

They were advised to study only **SPANISH**.

i. ‘They were advised to study Spanish and nothing else’

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

Taglicht (1984), von Stechow (1991)

(41) Taglicht-sentences

They were advised to study only **SPANISH**.

- i. ‘They were advised to study Spanish and nothing else’
advised >> only Spanish

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

Taglicht (1984), von Stechow (1991)

(41) Taglicht-sentences

They were advised to study only **SPANISH**.

- i. ‘They were advised to study Spanish and nothing else’
advised >> only Spanish
- ii. ‘Only Spanish was such that they were advised to
study it’
only Spanish >> advised

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

(41) Taglicht-sentences

They were advised to study only **SPANISH**.

- i. ‘They were advised to study Spanish and nothing else’
advised >> only Spanish

LF: they were advised [IP [only Spanish]₁ [to learn t₁]]

- ii. ‘Only Spanish was such that they were advised to
study it’
only Spanish >> advised

LF: [IP [only Spanish]₁ [they were advised [IP to learn t₁]]]

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

Büring & Hartmann (2001) on German focus particles:

- a. Focus particles adjoin to extended verbal projections (VP, IP, CP).
- b. Focus particles always adjoin to maximal projections.
- c. Focus particles must c-command their foci.
- d. Focus particles must be as close as possible to their foci.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

Büring & Hartmann (2001) on German focus particles:

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1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

- a. Focus particles adjoin to extended verbal projections (VP, IP, CP).

(42) German Taglicht-sentence

Sie haben uns **nur** **SPANISCH_F** zu lernen geraten.
they have us only Spanish to learn advised
'They advised us to learn only Spanish.'

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

- a. Focus particles adjoin to extended verbal projections (VP, IP, CP).

(42‘) German Taglicht-sentence with B&H syntax

- i. Sie haben uns **nur** [_{VP} [_{IP} PRO [_{VP} **SPANISCH**_F zu lernen] geraten].
they have us only Spanish to learn advised
‘They advised us to learn only Spanish.’

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

- a. Focus particles adjoin to extended verbal projections (VP, IP, CP).

- (42‘‘) German Taglicht-sentence with B&H syntax
- i. Sie haben uns **nur** [_{VP} [_{IP} PRO [_{VP} **SPANISCH**_F zu lernen] geraten].
- ii. Sie haben uns [_{VP} **nur** [_{IP} PRO [_{VP} **SPANISCH**_F zu lernen] geraten].
- iii. Sie haben uns [_{VP} [_{IP} **nur** PRO [_{VP} **SPANISCH**_F zu lernen] geraten]
- iv. Sie haben uns [_{VP} [_{IP} PRO [_{VP} **nur** [_{VP} **SPANISCH**_F zu lernen] geraten]
- v. *Sie haben uns [_{VP} [_{IP} PRO [_{VP} [_{NP} **nur SPANISCH**_F] zu lernen] geraten]
- they have us Spanish to learn advised
- ‘They advised us to learn only Spanish.’

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

- a. Focus particles adjoin to extended verbal projections (VP, IP, CP).

(42““) German Taglicht-sentence with B&H syntax

- v. *Sie haben uns [_{VP} [_{IP} PRO [_{VP} [_{NP} **nur SPANISCH_F**] zu lernen] geraten]
they have us Spanish to learn advised
int.QR-ed reading: ‘Only Spanish was such such that they advised us to
study it.’

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of *only* - further issues

D. Scope issues and syntax

- a. Focus particles adjoin to extended verbal projections (VP, IP, CP).

(42““) German Taglicht-sentence with B&H syntax

v. *Sie haben uns [_{VP} [_{IP} PRO [_{VP} [_{NP} **nur SPANISCH_F**] zu lernen] geraten]
they have us Spanish to learn advised
int.QR-ed reading: ‘Only Spanish was such such that they advised us to
study it.’

- But is it really out?

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of ONLY – wrap-up

A. Entailment vs. presupposition(?) of *only*

Probably both the exclusion of alternatives and the proposition without only are entailed. The latter is controversial.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of ONLY – wrap-up

A. Entailment vs. presupposition(?) of *only*

Probably both the exclusion of alternatives and the proposition without only are entailed. The latter is controversial.

B. Scalar vs. non-scalar readings of *only*

Only may interact with scales such that only alternatives that are ordered along a scale are considered. It is not necessary to assume polysemy to cope with these facts.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

The semantics of ONLY – wrap-up

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C. Evaluational vs. non-evaluational readings of *only*

In some contexts, asserted focus values are evaluated as (too) little or bad. These meaning components have a structural side to them.

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Only may interact with scales such that only alternatives that are ordered along a scale are considered. It is not necessary to assume polysemy to cope with these facts.

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In some contexts, asserted focus values are evaluated as (too) little or bad. These meaning components have a structural side to them.

D. Scope issues and syntax

English probably has only-DPs with the predicted QR potential. German nur is standardly said to adjoin to extended verbal categories only.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Additive particles

– ALSO and EVEN –

A. The meaning of *also/too*

B. The meaning of *even*

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

(43) Paul also had **WHISKEY**_F.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

(43) Paul also had **WHISKEY**_F.

‘Paul had whiskey, and he had something else.’

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

(43) Paul also had **WHISKEY_F**.

‘**Paul had whiskey**, and he had something else.’

↑

assertion

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

(43) Paul also had **WHISKEY_F**.

‘Paul had whiskey, and he had something else.’

↑
assertion

↑
presupposition

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

(43) Paul also had **WHISKEY**_F.

‘Paul had whiskey, and **he had something else.**’

↑
assertion

↑
presupposition

presupposition of (43):

$\exists y [y \in \text{ALT}_C \wedge y \neq \text{whiskey} \wedge P(y) = 1]$

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

(43) Paul also had **WHISKEY_F**.
 ‘Paul had whiskey, and **he had something else.**’

↑
assertion

↑
presupposition

presupposition of (43):

$$\exists y [y \in \text{ALT}_C \wedge y \neq \text{whiskey} \wedge P(y) = 1]$$

cf. the entailment of *Paul only had WHISKEY*_F.

$$\neg \exists y [y \in \text{ALT}_C \wedge y \neq \text{whiskey} \wedge P(y) = 1]$$

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

BUT:

(44) Paul also had WHISKEY_F.
‘Paul had whiskey, and he had something else.’
 ↑ ↑
 assertion presupposition

(44') Paul **only** had **WHISKEY_F**.
 ‘Paul had whiskey, and he had nothing else.’

↑ ↑

assertion/presupposition entailment

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

Peculiarity I:

English has two different postposed ALSO particles,
too and *either*.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

Peculiarity I:

English has two different postposed ALSO particles, *too* and *either*.

Either is used if there's a negation in its scope.

- (45) I hope he didn't come, **either**.
'I hope it ALSO was the case that **HE** didN'T come.'
ALSO >> NOT

Too is used if there's no negation in its scope.

- (46) I hope he didn't come, **too**.
'I hope it wasN'T the case that **HE** came, **TOO**.'
NOT >> ALSO

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

Peculiarity II:

Adverbial *also* and *too* may interact with subjects.

- (47) a. **Peter** will also join us.
b. **Peter** will join us, too.

presupposition: ‘Someone other than Peter will join us.’

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

Peculiarity II:

Adverbial *also* and *too* may interact with subjects...

- (48) a. **Peter** will also join us.
b. **Peter** will join us, too.

presupposition: ‘Someone other than Peter will join us.’

... where *only* must c-command its focus.

- (49) a. Peter will only **JOIN** us.
b. **#PETER** will only join us.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

Peculiarity II:

Adverbial *also* and *too* may interact with subjects...

Krifka (1999): *Also* and *too* are themselves foci in the alleged subject-focus cases. The subjects are contrastive topics.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

Peculiarity II:

Adverbial *also* and *too* may interact with subjects...

Krifka (1999): *Also* and *too* are themselves foci in the alleged subject-focus cases. The subjects are really contrastive topics.

- (50) a. /**Peter**_{CT} will **ALSO**_F come.
b. /**Peter**_{CT} will come, **TOO**_F.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

A. The meaning of *also/too*

Conclusions for ALSO

1. ALSO presupposes the truth of an alternative.

(51) $[[also]] =$

$$\lambda x_{\langle \tau \rangle}. \lambda P_{\langle \tau, t \rangle} : \exists y_{\langle \tau \rangle} [y \in ALT_C \wedge y \neq x \wedge P(y) = 1] . P(x) = 1$$

2. Instead of adding asserted information, ALSO marks the independently asserted information as having a true discourse antecedent modulo existential focus closure/contrastive topic closure.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

B. The meaning of *even*

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

B. The meaning of *even*

What is the difference between (52) and (53)?

(52) Paul also drank **ARMAGNAC_F**.

(53) Paul even drank **ARMAGNAC_F**.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

B. The meaning of *even*

What is the difference between (52) and (53)?

(52) Paul also drank **ARMAGNAC_F**.

(53) Paul even drank **ARMAGNAC_F**.

There's **some scale** necessarily underlying, but not necessarily underlying (52): probability, surprise, semantic strength, ...

What both sentences have in common is the **additive presupposition**.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

B. The meaning of *even*

What is the difference between (52) and (53)?

(52) Paul also drank **ARMAGNAC_F**.

(53) Paul even drank **ARMAGNAC_F**.

(53) is less likely (Karttunen & Peters 1979), more surprising, informationally stronger (Kay 1990), ... than all contextually relevant alternative propositions.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

B. The meaning of *even*

(54) Paul had caviar and **also** some salad.

(54') #Paul had caviar and **even** some salad.
(OK if Paul is known to hate salad (and caviar))

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

B. The meaning of *even*

- (55) additive presupposition of *even*:
 $\exists x_{\langle \tau \rangle} [x \in ALT_C \wedge x \neq [[FOC]]_{\langle \tau \rangle} \wedge [[BG]]_{\langle \tau, t \rangle}(x) = 1]$
- (56) presupposition of *even* with universal quantificational force:
 $\forall x_{\langle \tau \rangle} [x \in ALT_C \wedge x \neq [[FOC]]_{\langle \tau \rangle} \wedge [[BG]]_{\langle \tau, t \rangle}(x) \prec_C ([[BG]]_{\langle \tau, t \rangle}([[FOC]]_{\langle \tau \rangle}))]$

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Adverbial quantifiers and Free Association with Focus

(Beaver & Clark 2003, 2008)

- (57) a. In St. Petersburg, officers **always** escorted
BALLERINAS_F.
b. In St. Petersburg, **OFFICERS_F** **always** escorted
ballerinas.
(Rooth 1996)

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Examples of adverbial quantifiers and Free Association with Focus (Beaver & Clark 2008)

- (57) a. In St. Petersburg, officers **always** escorted
 BALLERINAS_F.
 b. In St. Petersburg, **OFFICERS_F** **always** escorted
 ballerinas.

(57a) and (57b) have different truth-conditions.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Examples of adverbial quantifiers and Free Association with Focus (Beaver & Clark 2008)

- (57) a. In St. Petersburg, officers **always** escorted
 BALLERINAS_F.
 b. In St. Petersburg, **OFFICERS_F** **always** escorted
 ballerinas.

(57a) and (57b) have different truth-conditions.

Exercise: Demonstrate this.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

- (57) a. In St. Petersburg, officers **always** escorted
BALLERINAS_F.
b. In St. Petersburg, **OFFICERS_F** **always** escorted
ballerinas.
- (57') a. [Always], [if officers escorted someone in St. Petersburg]_R, it
was [**ballerinas**]_{SC}.
b. [Always]_Q, [if someone escorted ballerinas in Petersburg]_R, it
was [**officers**]_{SC}.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

One more example of an adverbial quantifier and Free Association with Focus

(58) a. Kim **always** serves Sandy **COURVOISIER**_F.

b. Kim **always** serves **SANDY**_F Courvoisier.

(58') a. Always, if Kim serves Sandy something, it is
Courvoisier.

b. Always, if Kim serves somebody Courvoisier, it is
Sandy.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Analogous effects with

- quantificational determiners
- modals and generics
- superlatives
- counterfactuals and reasons
- emotive factives

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Analogous effects with

- quantificational determiners

(59) Every ship passed through the lock at night.

- (59') a. [Every]_Q [ship of a contextually salient set of ships]_R [passed through the lock at night]_{SC}.
b. [Every]_Q [ship that passed through the lock]_R did so [at night]_{SC}.

Note: purely contextual resolution of the restriction of the Q in (59'a)
(apart from the ship-predicate)
purely sentence-internal resolution in (59'b).

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Analogous effects with

- **modals** and generics

(60) a. Dogs **must** be **CARRIED**_F.

b. **DOGS**_F **must** be carried.

(60') a. [All]_Q [situations in which you have a dog
with you]_R, [you must carry it]_{SC}.
(for safety reasons, on an escalator)

b. [All]_Q [(contextually restricted) situations]_R are
such that [you must carry a dog]_{SC}.
(it's the fashion)

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Analogous effects with

- modals and **generics**

(61) In France, dogs are carried.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Analogous effects with

- superlatives

- (62) a. **MARY_F** gave John the biggest box.
b. Mary gave **JOHN_F** the biggest box.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Analogous effects with

- **counterfactuals** and reason statements

- (63) a. If he hadn't married **Bertha_F** to Clyde, Aretha couldn't have continued to run the business.
b. If he hadn't married Bertha to **Clyde_F**, Aretha couldn't have continued to run the business.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Analogous effects with

- counterfactuals and **reason statements**

- (64) a. He married **Bertha_F** to Clyde because Aretha was indispensable in the business.
b. He married Bertha to **Clyde_F** because Aretha was indispensable in the business.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Some differences between true focus particles like *only* and quantificational elements associating with focus more freely

- No c-command restriction.
- (65) In St. Petersburg, **OFFICERS_F** **always** escorted ballerinas.
- (66) **DOGS_F** **must** be carried.
- Cf. the c-command restriction with *only*.
- (67) a. My dog will only eat „**DOG FIRST**“_F.
b. My dog will only **EAT_F** „Dog First“.
c. # **MY DOG_F** will only eat „Dog First“.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Some differences between true focus particles like *only* and quantificational elements associating with focus more freely

- Association with cliticized material possible (cf. B&C 2003: 342-3)

- (65) [Of all the times you talked with Sandy, how often was Fred the person you talked about?]
I **ALWAYS** discussed **'im** with Sandy.
'Whenever I discussed someone with Sandy, I discussed Fred with Sandy.'
- (66) [Apart from Fred, who else did you discuss with Sandy?]
I **ONLY** discussed {#**'im/✓HIM**} with Sandy.
,I only discussed Fred with Sandy, and no one else).

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Some differences between true focus particles like *only* and quantificational elements associating with focus more freely

- Generally more reference to the context for restrictor resolution than with *only*
- But:
 - (i) *Even* and *also* heavily context-dependent;
 - (ii) Scalarity with *only* heavily context-dependent

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Beaver & Clark's (2003: 349) analysis

- $[[\text{NP } \textit{only} \text{ VP}]] =$
B&C: $\forall e . p(e) \rightarrow q(e)$
more expl.: $\exists e . \forall e' . [[\text{NP VP}]](e') = 1 \rightarrow e' = e$
- $[[\text{NP } \textit{always} \text{ VP}]] =$
B&C: $\forall e . \sigma(e) \rightarrow \exists e' . \rho(e, e') \wedge q(e')$

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Beaver & Clark's (2003: 349) analysis

- $[[\text{NP } \textit{always} \text{ VP}]] = \forall e . \sigma(e) \rightarrow \exists e' . \rho(e, e') \wedge q(e')$
- σ : „It is the contextual identification of σ which gives *always* the anaphoric properties we will be interested in here.“
- ρ : „the relation ρ must be determined contextually, and maps events to events; for instance, it could be a function which maps an event e to the set of events which immediately follow e and share the same agent. [...] ρ , which we shall term the *domain relation*, will play little role in the analysis.“

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Beaver & Clark's (2003: 349, 351) analysis

- $[[NP \textit{ always VP}]] = \forall e . \sigma(e) \rightarrow \exists e' . \rho(e, e') \wedge q(e')$
- σ : „It is the contextual identification of σ which gives *always* the anaphoric properties we will be interested in here.“
- ρ : „the relation ρ must be determined contextually, and maps events to events; for instance, it could be a function which maps an event e to the set of events which immediately follow e and share the same agent. [...] ρ , which we shall term the *domain relation*, will play little role in the analysis.“

(67) Sandy always feeds **FIDO_F** Nutrapup.

„context in which we were discussing occasions on which Sandy fed some animal Nutrapup. [...] σ might get set to $\lambda e[\exists x \text{ animal}(x) \wedge \text{feeding}(e) \wedge \text{AGENT}(E)=\text{sandy} \wedge \text{GOAL}(e)=x \wedge \text{THEME}(e)=\text{nutrapup}]$.
[...] ρ is resolved to the identity relation“

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Conclusions about grammaticalized association with focus with, e.g., *only* vs. free AwF

- With *only*, focus marking entails a mapping to the scope of quantification (provided Second-occurrence foci are given a sufficient treatment)

not so with Free AwF

- Less context dependence for the resolution of the restriction with *only*

more context dependence with Free AwF

- Syntax constraint on foci interacting with *only*: c-command

not so with Free AwF

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Wrap-up:

- Focus-sensitive operators quantify over alternatives to the focus value/to propositions that are relevant in a given context.
- Exclusive particles like *only* quantify exhaustively:
all true alternatives are entailed to be identical to the focus value/are entailments of the proposition at hand
OR
no alternative is true
- Additive particles like *also* and *even* presuppose the truth of an alternative.
- Both additive and exclusive particles may make reference to scales.
- Scales are typically context-dependent.
- Free AwF as with adverbial quantifiers etc. is subject to fewer linguistic restrictions, and is more context-dependent, than AwF with *only*.

1. Exclusive part. - 2. Additive part. - 3. Adv. quantifiers

Thank you!

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