Conventional vs Free Association with Focus: Insights from West African and South East Asian Languages

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Focus Sensitivity from a Cross-Linguistic Perspective, Bar Ilan University

1. Introduction

- ***Goals of the talk/ Issues to be discussed***

i. Overview of several inter-related topics in the discussion of focus-sensitive exclusive (*only*), additive (*also/TOO*) and scalar particles (*even*).

- At-issue/truth-conditional vs non-at-issue/presuppositional meaning
- Morpho-syntactic constraints on particle placement
- Association with focus and contrastive topic alternatives
- Conventional vs Free association with focus.

⇒ Particles in *European languages* subject to extensive discussion in formal syntax and semantics over the past 40 years or so (the following list is non-exhaustive):

EXCL: Horn (1969), Jacobs (1983), Rooth (1985, 1992, 1996), König (1991), von Stechow (1991), Bayer (1996), Beaver & Clark (2003, 2008), Roberts (2010), Beaver & Coppock (2011, 2013) …

SCAL: Horn (1969), Fauconnier (1976), Karttunen & Peters (1979), Jacobs (1983), Kay (1990), König (1991), Wilkinson (1996), Schwenter & Vasishth (2001). Guerzoni (2003), Schwarz (2005), Nakanishi (2008), Beaver & Clark (2008), Gast & von der Auwera (2011)

ADD: Karttunen & Peters (1979), König (1991), Krifka (1999), …

⇒ Until recently, only limited interest in Non-European languages:

Japanese (e.g. Nakanishi 2006), Hindi (Schwenter & Vasishth 2001), Mandarin (Hole 2004)

ii. Introduce new empirical data on focus particles and focus-sensitivity in Non-European languages into the theoretical debate, thereby raising new questions and opening up new avenues for research on particles and/or focus sensitivity.

⇒ For the most part, the presented data were collected in the Potsdam-based research project on 'Focus realisation, focus interpretation and focus use from a cross-linguistic perspective' (SFB 632/A5, PI: Zimmermann, 2007—2015).

⇒ Languages to be discussed:

HAUSA, NGAMO, BURA, NGIZIM, BOLE (all Chadic, Afro-Asiatic), GA (Kwa, Niger-Congo), MEDUMBA, BASAÁ (Grassfield Bantu, Niger-Congo),

BURMESE, VIETNAMESE (Austro-Asiatic), THAI (Tai-Kadai), ISHKASHIMI (Iranian),

NŁHKPMEXCIN (Salish)

⇒ Some of these languages (Ngamo, Ga, Ishkashimi, Vietnamese) will be discussed in more detail by other members of the Potsdam group.

- ***Central findings:***

i. Cross-linguistic variation in distribution and semantics of EXCL, SCAL and ADD particles, with some robust cross-linguistic tendencies.

ii. Tendency for heterogeneous syntactic and semantic behavior of EXCL, SCAL and ADD in individual languages:

(1) a. {EXCL} vs {SCAL, ADD} b. {EXCL, SCAL} vs {ADD}
ADDITIVE SCALE-SENSITIVE

c. *{EXCL, ADD} vs {SCAL}

iii. EXCLs conventionally associate with focus in all languages under discussion (at least in languages that have EXCLs proper)

iv. Cross-linguistically, ADDs and SCALs tend to exhibit (i.) a wider syntactic distribution, in not necessarily operating over focus alternatives (alone); and (ii.) a more flexible interpretation, in operating on other but the set of focus alternatives: ALTERNATIVE-SENSITIVE PARTICLES

⇒ SCALs and ADDs often show more liberal association patterns with focus; i.e. they are sensitive to the effects of structural focus marking when present, without necessarily requiring it (at least in the case of ADDs).

v. ADDs: Alternative-sensitive particles OR freely-associating with focus AND CT-denotation.

vi. ***Methodological lesson:*** Counterparts of *only*, *also*, *even* in other languages often come with somewhat different syntactic and semantic properties despite some overlap in meaning: information from dictionaries and grammars must be treated with care.

- ***Structure of the talk:***

§2: Focus Particles & Focus Sensitivity: Standard picture and some problems

§3: Focus Particles & Focus Sensitivity from a Non-European perspective

§4: Taking stock & Avenues for future research

2. FPs & Focus Sensitivity: Standard picture and some problems

2.1 The standard (idealized) picture: FPs form a homogeneous class

i.	There is a syntactically and semantically unified class of focus particles (FP) in natural language(s).
ii.	All FPs interact with focus-background structure in parallel ways.

- e.g. Jacobs (1983: 127):

(4.1) Nur einige Arbeitslose baten Gerda um ein Autogramm. (*only*)
(4.2) Sogar einige Arbeitslose baten Gerda um ein Autogramm. (*even*)
(4.3) Auch einige Arbeitslose baten Gerda um ein Autogramm. (*also*)
FP some unemployed asked Gerda for a signature

„Da die syntaktische Funktion der Partikeln in diesen Sätzen jeweils dieselbe ist, können die Bedeutungsunterschiede zwischen (4.1) - (4.3) nur das Resultat von Unterschieden in der Wo r t b e d e u t u n g der Partikeln *nur*, *sogar* und *auch* sein." = As the syntactic function of the particles in these sentences is the same in each case, the meaning differences in (4.1) – (4.3) must be due to differences in the lexical meaning of the particles *nur*, *sogar* and *auch*.

$\Rightarrow$ Jacobs proceeds to give a unified analysis of FPs in which these make reference to contextually given scales.

- e.g. Beaver & Clark (2008: 86)

"[…], only some expressions that have been labeled focus sensitive have a lexically-encoded, conventionalized dependency on focus. In this section we discuss some of these types of expressions, including *exclusives*, *additives*, *scalar additives*, intensifiers, downtoners, and particularizers."

- Basic meanings on unified FP-analysis of FPs (after Rooth 1985, Krifka 1991)

(2) a. $[[\text{only S}]]^w = 1 \text{ iff } \forall q \in [[S]]^f: q(w) \rightarrow q = [[S]]^0$

b. $[[\text{only}]]^w(<BG, F>) = \forall z \in D_{TYPEFOC}: [\, BG(z)(w) \rightarrow z = F]$

(3) a. $[[\text{also S}]]^w = 1 \text{ iff } [[S]]^w = 1$; defined iff
$\exists p \in [[S]]^f: p(w) \,\&\, p \neq [[S]]^0$

b. $[[\text{also}]]^w(<BG, F>) = BG(F)$; defined iff
$\exists x \in D_{TYPEFOC} : x \neq F \,\&\, BG(x)(w)$

(4) a. $[[\text{even S}]]^w = 1 \text{ iff } [[S]]^w = 1$; defined iff
i. $\exists p \in [[S]]^f: p(w) \,\&\, p \neq [[S]]^0$
ii. $\forall q \in [[S]]^f: [[S]]^0$ less expected than q in w

b. $[[even]]^w(<BG, F>)$ = BG(F); defined iff

i. $\exists x \in D_{TYPEFOC} : x \neq F$ & BG(x)(w)

ii. $\forall z \in D_{TYPEFOC}$: BG(F) less expected than BG(z) in w

- Unified analyses of FPs are intuitively appealing as they allow for a treatment of ***EXCLs and SCALs as antonyms***, making reference to different (end)points or regions on a scale (Jacobs 1983: 144-45, König 1991), or as restricting the QUD in excluding stronger or weaker propositions on some contextually given scale (Beaver & Clark 2008); cf. also Horn (1969), Beaver & Coppock (2011, 2013).

(5) a. sogar/even ⇒ **VIEL** ($I\lambda v_{1T}$([Ev_1](kommt)], IPeter) (much)
b. nur/only ⇒ **WENIG** ($I\lambda v_{1T}$([Ev_1](kommt)], IPeter) (little)

⇒ **Cross-linguistic evidence I:** Systematic meaning flips under scale reversal

EXCL form can receive an EVEN-reading in scale-reversing contexts (in the presence of additional material), e.g. German *auch nur*, Dutch *ook maar*, Italian *anche solo*/soltanto, Slovak *i len*, Czeck *i jen*, all literally meaning ALSO ONLY, Spanish *tan solo/solamente* and Catalan *tan sols*, literally meaning SO ONLY (Gast and van der Auwera, 2011:p.32), and Blackfoot *ikak*- meaning ONLY (Bliss, 2010). (Grubic 2012: 301)

⇒ **Cross-linguistic evidence II:** Identical morphological forms with EXCL or SCAL reading in related languages (Grubic 2012): *kapa* in Bole and Ngizim (Chadic)

Next to a general end-of-scale meaning (*until, as far as*) attested in both languages, *kapa* has a SCAL interpretation in Ngizim (6), but an EXCL interpretation in Bole (7):

(6) Ndiwa tawanke deyau **kapa** Mammadi [Ngizim]
person every come.PFV KAPA Mammadi
'Everybody came, *even* Mammadi.'

(7) Lelo i kele n Ibbi, **kapa** Mammadi*(iwo sa) [Bole]
everyone do.PFV greeting to Ibbi KAPA Mammadi do-NMLZ NEG
'Everybody greeted Ibbi, *only* Mammadi did #(not greet him).'
Intended: #'Everybody greeted Ibbi, even Mammadi did.'

- The second intuitive appeal of unified analyses lies in the (often) similar behaviour of ADDs and SCALs:

i. In many languages, SCALs come with an additive meaning component: ***scalar-additives***

ii. In many languages, bare ADDs allow for scalar interpretations when the associate is contrastively/emphatically focused:

(8) **Auch** einige der größten Genies waren schlechte Schüler. [German]
‚Even some of the greatest geniuses were bad at school.' (Jacobs 1983: 129)

(9) a. raam **bhii** aayaa [Hindi]
Ram EMPH came (Lahiri 1998: 59)
'Ram **also** came.'

b. do rasoiye **bhii** khaanaa bigaaR dete haiN
two cooks EMPH food spoil AUX
'**Even** TWO cooks will spoil the broth.'

⇒ Semantic relation of ADDs and SCAL(ADD)s accounted for if both make reference to focus alternatives in their lexical meaning.

BUT: *How is scale-sensitivity induced by (non-canonical) focus marking?*

2.2 Differences between EXCLs, SCALs, and ADDs

The different particle types also exhibit important differences, casting some doubt on a cross-linguistically unified analysis of these elements as focus-sensitive elements of the same type.

2.2.1 Differences I: Nature of meaning contribution

- A first robust semantic difference concerns the dimension of meaning to which the particles contribute, namely at-issue/truth-conditional vs non-at-issue/ presuppositional meaning:

EXCL Contribute to truth-conditional/at-issue meaning cross-linguistically (Horn 1969): visibility to negation (*not only*); no projection (Beaver &Clark 2008, Renans 2012)

ADD/ SCAL Contribute to non-at-issue/presuppositional meaning cross-linguistically (Horn 1969, Karttunen & Peters 1979, Rooth 1985):

invisibility to negation; projection

Q: Is there any principled conceptual reason as for why this should be so?

EXCL At first sight the answer would seem to be 'NO'; see the reverse exclusive semantics for *it*-clefts in Velleman et al. (2013)

BUT: (Pragmatic) exhaustification in the non-at-issue meaning component is a default mechanism in natural language; see Horn (1981), Groenendijk & Stokhof (1984), Kratzer (2008), Skopeteas & Fanselow (2011), a.o.

⇒ From the perspective of lexical economy, it seems pointless to have lexical items coding non-at-issue exhaustification

ADD/SCAL/ At first sight NO! Corresponding at-issue meanings readily conceived of:

i. Why no discourse-initial occurrences of ADD meaning *not XP_{FOC} alone/ XP together with somebody else*?

(10) a. Did ADD XP_{FOC} go? vs Did XP_{FOC} go alone?

b. It is not the case that ADD-XP went, XP went alone

ii. Why no truth-conditional instances of SCAL particles?

(11) a. Did SCAL XP_{FOC} go

b. It is not the case that SCAL-XP went! That was to be expected.

BUT: Core function of ADDs and SCAL-ADDS appears to consist in creating discourse coherence by means of anaphoric reference to previous utterances/ propositions in the CG (see Kay (1990) on *even*; cf. §2.2.3): ***anaphoric relations between sentences are non-at-issue meaning par excellence.***

⇒ ***The main function of these particles lies in discourse-management*** (cf. Beaver & Clark 2008), putting them in a class with other discourse particles (G. *doch*)

⇒ Truth-conditional counterpart of the mirative core meaning of non-additive (= non-anaphoric) SCALs, in languages in which they exist (e.g. Vietnamese), often expressed by means of modal expressions (*unlikely*) or predicates (*surprising, unexpected*).

- ***Summary:***
  Despite first appearances, there may be principled reasons for the absence of non-at-issue EXCLs and at-issue ADDS and SCALs, which have to do with the general applicability of EXH in natural language and the discourse-orientation of ADDs and SCALs: ANAPHORICITY AS BASIC MEANING COMPONENT

2.2.2 Differences II: Morpho-syntactic constraints on particle placement

- While it is generally agreed on that the syntactic status (adverbial/adnominal) of the FP and the categorical status of its complement (vP, TP) can differ across languages, the syntactic status of FPs within a given language is mostly taken to be the same (e.g. Büring & Hartmann 2001: 230)

i. English: flexible inventory of FPs occurring as as adverbial and adnominal modifiers (Rooth 1985, von Stechow 1991),

(12) a. They were advised to **only** learn Spanish.
b. They were advised to learn **only** Spanish.

i. Spanish is the only language that they were advised to learn; others they were free to learn.

ii. They were advised to learn Spanish, and no other language (= 12a)

ii. FPs in German have been argued to be exclusively adverbial in nature (Jacobs 1983, Büring & Hartmann 2001), pace Bayer (1996), Reis (2005).

(13) *Gabi hat [$_{PP}$ **mit** **nur** Hans] getanzt.
Gabi has with only Hans danced
Intended: 'Gabi only danced with HANS.'

iii. In African languages, adnominal FPs are prevalent; e.g. Tangale and Gùrùntùm (Hartmann & Zimmermann 2007, 2009).

(14) n fad-go **núm** *littáfi-i*, [Tangale; H&Z 2007: 119]
I buy-PERF only book-the
i. 'I bought only the BOOK, I bought nothing else.'(OBJ-focus)
ii. 'I only bought the BOOK, (I did nothing else).'
iii. 'I only BOUGHT the book, (but I have not read it yet).'

- Adnominal/ adverbial status in principle independent of presumed semantic function as operating on focus alternatives (see Büring & Hartmann 2001 for detailed illustration). Semantic dependency on focus alternatives can be modelled both by means of GQs or sentence adverbials (Rooth 1985):

⇒ Trivial locus of cross-linguistic variation, subject to main focus marking strategy in a given language (intonation, movement, morphological markers, etc.)

STILL: In certain cases, the distribution of ADD/SCAL particles seems to have nothing to do with focus alternatives: e.g. Hausa ADD *maa* attaches to contrastive topics (Newman 2000: 616)

(15) gwàdo **maa** zân sayáa ma-kà
blanket ADD FUT-1SG buy IO-you.m
'The blanket also, I'll buy it for you.'

AND: Even in English, the syntactic distribution of *also/even* and *only* is not fully parallel, with *also/even* showing a wider distribution (Jackendoff 1972, Rooth 1985, Krifka 1999, Wagner (this workshop)

⇒ Unlike *only*, *even* can associate with the subject to its left when it occurs in preverbal position or following the highest auxiliary, cf. (16, 17) (Jackendoff 1972, Rooth 1985):

(16) a. JOHN even gave his daughter a new bicycle.

b. ?JOHN only gave his daughter a new bicycle.

(17) a. JOHN will even give his daughter a new bicycle.

b.*?JOHN will only give his daughter a new bicycle.

⇒ Jackendoff (1972), Rooth (1985): Unlike *only*, *even* can be generated as a sentential adverb and associate with elements in its c-command domain, including the subject.

Q: WHY and HOW? ⇒ §2.2.3

2.2.3 Differences III: Association with focus and contrastive topic alternatives

- ***(Incorrect) standard view**:*

i. Relevant semantic alternatives for EXCL, ADD, SCAL exclusively generated by focus constituents

ii. EXCL, ADD, SCAL **(only)** associate (semantically and syntactically) with focused constituents (Jackendoff 1972, Jacobs 1983, Rooth 1985, Beaver & Clark 2008)

- ***A problem with Hungarian** (e.g. Horváth 2005, 2007):*

  In Hungarian, (scalar-)additives have a different distribution from exclusive particles. Crucially, they **must not** be located in the preverbal focus position: they occur in a higher structural (topic?) position (18ab), and they do not tolerate the focus-specific word order V > PRT (19):

(18) a. Péter **még Marit** **is** [csak egyszer]$_{FOC}$ hívta meg.
Peter even Mary-ACC too only once invited PRT
'Peter invited even MARY only once.' (it is out of the question that he would have invited anyone else more than once)

b. Péter **Marit** **is** [csak egyszer]$_{FOC}$ hívta meg.
Peter Mary-ACC too only once invited PRT
'Peter invited MARY too only once.' (he also invited JOHN only once)

(19) Péter **(még)** Marit **is** meghívta / *hívta meg
Peter even Mary-ACC too PRT-invited invited PRT
'Peter even invited MARY. / Peter invited MARY, too.'

⇒ Intuitive associate of Hungarian (SCAL-)ADD *(meg) is* NOT in focus!

- ***Postposed ADDs under stress (Krifka 1999):***

  Hungarian ADDs behave in parallel with accented ADDs in English and German, which are also sensitive to CT-induced alternatives:

(20) QUD: Who ate what?

What did Fred eat? What did Bill eat? etc.

A: FRED/$_{CT}$ ate BEANS\$_{F}$, and BILL/$_{CT}$ (ALSO\) ate beans$_{F}$, (TOO\).

⇒ Additive meaning of accented ADDs nicely accounts for their occurrence in partial answers to the superquestion indicated by CT-marking (Büring 1997),

but the strong preference of CT-sensitive ADDs to occur in sentences with a given focus constituent/VP (Féry & Krifka 2007) remains unexplained.

⇒ Marginally, the occurrence of unaccented ADDs in CT-contexts is possible, though, in which case the ADD appears to simultaneously operate on the CT- and focus alternatives:

(21) Jonathan Safran Foer, *Extremely Loud and Incredibly Close*, my boldprint:

"Then there was Bernie Black, who had a view of Gramercy Park, but not a key to it, which he said was worse than looking at a brick wall. Chelsea Black had a tan line around her ring finger, because she got divorced right after she got back from her honeymoon, **and Don Black was *also* an animal-rights activist, and Eugene Black *also* had a coin collection**."

Superquestion: Which BLACK/ had which PROPERTY\.

Presupposition: A different black had a different property.

⇒ The seeming CT-F-association pattern in (21) is productively found with ADDs in other languages, e.g. Turkish (Göksel & Özsoy 2003, Karvovskaya 2013)

(22) Leyla_{CT} sinema-ya_{F} gidi-yor, ***Meltem***$_{CT}$ **de** ***konser-e***$_{F}$ (gidi-yor).
Leyla cinema-DAT go-DUR, Meltem ADD concert-DAT go-DUR
'LEYLA is going to the MOVIES and MELTEM is also going to a CONCERT.'

⇒ An alternative account of (22) would consist in postulating an extremely weak meaning for *de* as a sentence-connector (ALSO = AND), which only posits the existence of some related proposition in the CG.

(23) $[[\text{ADD}_{CONN}]] = \lambda p.p$; defined iff $\exists q\ [R(q,p)]$

⇒ On this account, ADD would exhibit ***free association with focus*** (and CT), which would only serve to constrain the set of relevant propositions q.

⇒ **Prediction:** ADD should be able to occur in sentences without formal CT- and FOC-marking

- ***Intermediate Summary:***

  In principle, two analyses for ADDs with a wider distribution than EXCLs:

i. Alternative-sensitive particles: Sensitive to both FOC- and CT-alternatives

ii. Free Association particles, only indirectly constrained by CT and FOC.

- ***A case study of SCALs as alternative-sensitive particles*** (**Zimmermann 2012**):

Claim: In high sentential position, German *sogar* and English *even* are sensitive to FOC- and CT-alternatives ≠ *only/nur*

i. **SCAL-Observations: English and German**

- EXCL can associate with two foci at a time (24a), but not with CT and FOC at the same time (24b):

(24) a. John only introduced $BILL_F$\ to $MARY_F$\ (no other introductions)

b. $JOHN_{CT}$/ only invited $BILL_F$\

≠ The only inviting event was of Bill by John.

= As for John, he only invited Bill. (FOC-association)

- Relative unlikelihood (relative to world knowledge) is NOT the licensing factor for SCALs (Jacobs 1983, Kay 1990, pace Karttunen & Peters 1979):

(25) a. Jacobs 1983: 130, ex. (4.13)):

Daß diese Erbsensuppe großen Anklang fand, sieht man daran, wieviele Teller die Kinder davon aßen: Petra aß zwei Teller, markus aß drei Teller, und Carmen, unser kleiner Vielfraß, schaffte sogar vier Teller.

b. And $CARMEN_{CT}$/, our little glutton, even ate $FOUR_F$\ plateful.

Context question (CT-context): Who ate how much?

⇒ ***Preverbal* even *can range over FOC- AND CT-alternatives!***

(26) A: Can Stretch jump six feet?

B: **Sure, DUMPY can even jump SEVEN feet.** (Kay 1990: 68, ex. (22))

Context question (CT-context): Who jumps which height?

- **Kay (1990):** *Even*-proposition must entail a contextually given proposition on one or more contextually given scales; ***core-function: sentence-relating***;
see analysis of DP *doch* in Egg (2012), Egg & Zimmermann (2012)

(27) [[even]](p)(q) = p; defined if p entails q on one or more contextually given scale (of likelihood, number, partially-ordered pluralities…)

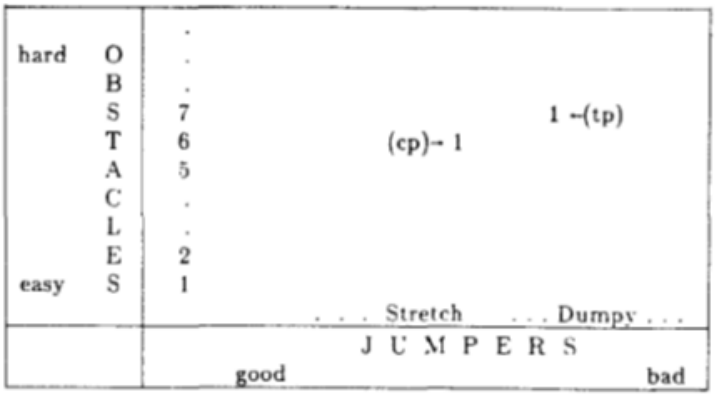


Fig. 5.

- *Even*-proposition needs to be relatively be stronger than context proposition, but it need not be the absolutely strongest proposition on the scale(s).

(28) KLAUS$_{CT}$/ solved FIVE$_F$\ exercises, **Cindy/ solved even SIX**, and **ABDUL/**, the smart geezer, **solved even SEVEN\ exercises.**

⇒ **ALTERNATIVE-sensitivity:**

The form of alternative context propositions (cp) is determined by the number and position of all the alternative-inducing constituents in an *even*-utterance, namely FOC- and, if present, CT-constituent.

(29) a. Sure, DUMPY$_{CT}$/ can even jump SEVEN$_F$\ feet.

b. cp(even-p) = λw. Stretch can jump six feet in w ∈ ALT(even-p)

c. ALT(even-p) = {x can jump n feet| x∈PERSON, n∈N}

(30) ALT(even-p) = ∪[[(29a)]]^{CT} =

= ∪{ {Dumpy can jump n feet| n∈N}, {Stretch can jump n feet| n∈N}, …}

(31) a. DUMPY$_F$\ can even jump SEVEN$_{CT}$/ feet. (Anybody can jump 7 feet)

b. ALT(even-p) = ∪{ {x can jump 7 feet|x∈PERS}, {x can jump 6 feet| x∈PERS}, …}

⇒ Licensing contexts for *even*-propositions depend on CT-FOC structure of the utterance, if CT is present, and on FOC structure if no CT is present: **Association with focus a special case of general association with alternatives.**

- ***Association patterns:***

i. ***Association with FOC: 1-dimensional entailment***

- Association with ***object FOC***: Entailment in Height-dimension

(32) **How high** can a good athlete jump?

A good athlete can **even** jump **SEVEN feet$_F$**.

- Association with ***subject FOC***: Entailment in QUAL-dimension

(32) **Which athlete** can jump 6 feet?

An **AVERAGE$_F$** athlete can **even** jump six feet.

ii. ***Double Association with CT and FOC:***

Although CT and FOC are both relevant for determining the set of suitable context propositions, the entailment dimension is solely determined by the focus constituent: SCAL always require a focus constituent!

- ***Association with subject CT and object FOC:*** **entailment in Height-dimension!**

  Q: WHICH/ athlete can jump which HEIGHT\?

  IQUDs: Which height can the BEST athlete jump?

  Which height can an AVERAGE athlete jump?

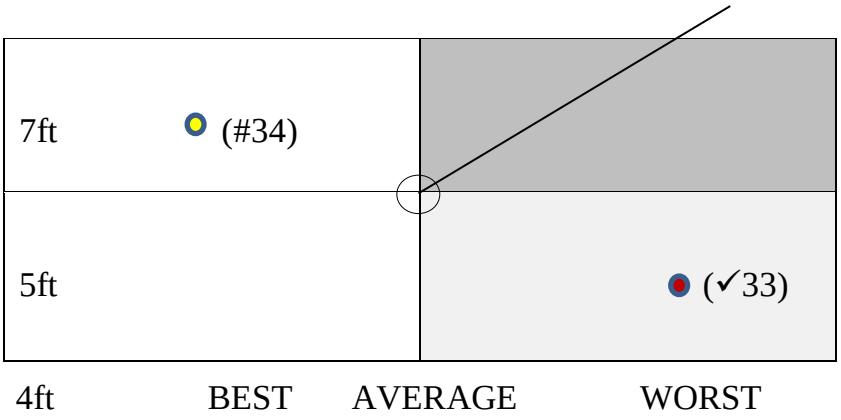
  Which height can the WORST athlete jump? etc.

(33) [The WORST/ athlete]$_{CT}$ can jump [**FIVE**]$_{F}$ feet.

and [an AVERAGE/ athlete]$_{CT}$ can **even** jump **[SIX\]$_{F}$** feet. [✓ 6ft ⊂ 5 ft]

(34) [The **BEST**/ athlete]CT can jump [SEVEN\]F feet.
and [an **AVERAGE/** athlete]CT can **even** jump [SIX\]F feet. [#AVER ⊂ BEST]

even-p: **AVERAGE athlete can jump SIX ft**



- ***Association with object CT and subject FOC:*** **entailment in QUAL-dimension!**

  QUD: WHICH\ athlete can jump which HEIGHT/?

  IQUDs: WHICH\ athlete can jump SEVEN/ feet?

  WHICH\ athlete can jump SIX/ feet?

  WHICH\ athlete can jump FIVE/ feet? etc.

(35) [The **BEST**\ athlete]$_{F}$ can jump [SEVEN/]$_{CT}$ feet.

And [an **AVERAGE**\ athlete]$_{F}$ can **even** jump [SIX/]$_{CT}$ feet [✓AVER ⊂ BEST]

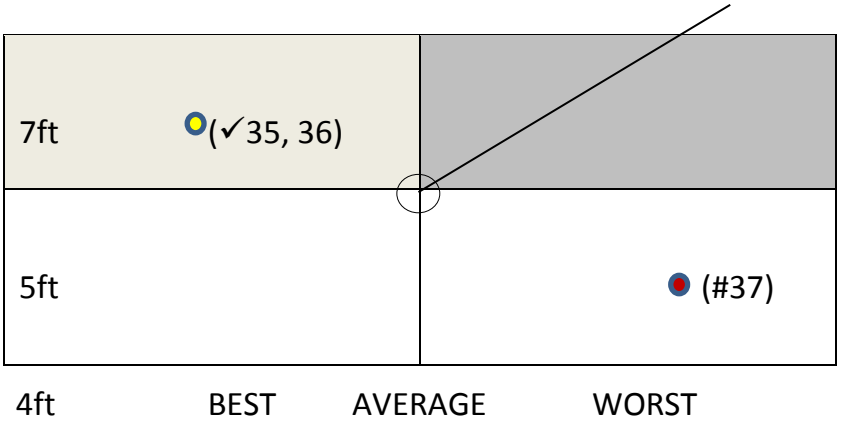
⇒ German equivalent requires overt reordering OBJ$_{CT}$ > SUBJ$_{F}$ (Wagner 2008)

(36) SIEBEN/ Fuß springt der BESTE\ Athlet und SECHS/ Fuß springt sogar ein DURCH\schnittlicher Athlet.

(37) [The WORST\ athlete]$_{F}$ can jump [**FIVE**/]$_{CT}$ feet.

#and [an AVERAGE\ athlete]$_{F}$ can **even** jump [**SIX**/]$_{CT}$ feet. [# 6ft ⊂ 5ft]

even-p: **AVERAGE athlete can jump SIX ft**



- ***Conclusions:***

i. SCALs and ADDs show more liberal association behaviour than EXCLs.

ii. Although SCALs in English and German are alternative-associating in the general (CT, FOC)-sense when it comes to the identification of suitable context propositions, the entailment dimension is solely determined by the focus constituent, which must be marked as such in these languages.

iii. Although *even*-propositions do not necessarily relate to the immediate QUD only, ***SCALs still conventionally associate with focus in a more liberal sense***.

(38) $[[\text{even } S_1]]\ ([[S_2]]) = [[S_1]]^0$; defined iff

i. $[[S_2]]^0 \in \cup[[S_1]]^{ALT(F \vee CT)}$, and

ii. $\exists x\ [[S_1]]^{COMMENT}(x) \rightarrow \exists x\ [[S2]]^{COMMENT}(x)$ on contextually salient scale.

e.g. (33): $\exists x$ [x can jump **6ft**] $\rightarrow \exists x$ [x can jump **5 ft**] (HEIGHT)

e.g. (35): $\exists n$ [**AVERAGE** can jump n ft] $\rightarrow \exists n$ [**BEST** can jump n ft] (QUAL)

iv. General alternative-association with CTs and FOCs excluded for EXCLs on principled grounds: Exclusion-semantics clashes with additivity presupposition (partial answer requirement) that comes with CT-marking (Büring 1997):

$\Rightarrow$ ***EXCLs always conventionally associating with focus in the strict sense***

v. **For ADDs there appear to be AT LEAST two a priori options:**

i. Association with alternatives (CTs, FOCs): English *TOO*, German *ALSO*

ii. Free Association (Beaver & Clark 2008): sentence/event-connecting

2.2.4 Differences IV: Conventional vs Free/Quasi Association (Beaver&Clark 2008)

- Next to unified weak/semantic theories of association with focus (e.g. Jacobs 1984, Rooth 1985), on which all focus-sensitive items make direct reference to focus in their lexical meaning, and unified strong/pragmatic theories of focus

(Rooth 1992), on which the relation between all focus-sensitive expressions and the focus alternatives is pragmatically mediated through the free context variable C, Beaver and Clark (2008) propose a heterogeneous system, according to which a focus-sensitive expression can exhibit:

i.	**Conventional association** with focus**:** reference to focus/CQ in meaning
ii.	**Free association** with focus: Contextually bound restricting variable (partly) constrained by focus (pre)suppositions
iii.	Quasi-association with focus: with non-veridical operators

- ***Core claim:***

  Contrary to speculations in B&C (2008; see above), not any EXCL, SCAL or ADD necessarily shows conventional association with focus in a given language L. The particles may show heterogeneous association behaviour instead:

EXCL: Must conventionally associate with focus in all languages that have them.

SCAL: i. Conventional association with focus; OR

ii. Conventional association with alternative-inducing expressions (FOC and CT), simple association with focus constituting the special case.

ADD: i. Conventional association with focus; OR

ii. Conventional association with alternative-inducing expressions (FOC and CT), simple association with focus constituting the special case; OR

iii. Free association (sentence-connecting), with focus-(pre)suppositions merely constraining possible values for the context variable q.

(39) $[[ADD_{free}\ q_{17}\ ]]^{g,w0}(p) = p$; defined iff $g(17)(w_0) = 1$ and p stands in some discourse relation to g(17)

Q: What do we find in Non-European languages?

3 Focus particles and focus sensitivity: A Non-European perspective

- Cross-linguistic survey of several Non-European languages provides general support for the (in principle) heterogeneous treatment of EXCLs, SCALs, ADDs, while leaving open the possibility that the three particles pattern alike as conventionally associating particles in some languages. **Languages differ in:**

i. Particle inventories (absence of EXCLs or SCALs) ⇒ §3.1

ii. Formal constraints on particle placement ⇒ §3.2

iii. Syntactic distribution/semantic association behaviour of particles ⇒ §3.3

- *Main findings:*

i. Not all languages have run-of-the mill EXCL particles of the *only*-type (Basa'a, Burmese), some feature apparent EXCL particle proliferation (Ga)

ii. Structural constraints on particle placement (adverbial, adnominal) differ across languages and, within individual languages, across particle types.

iii. **Many languages in the sample (e.g. Bura, Ngamo, Nłeʔkepmxcin, Vietnamese, Thai, Medumba, …), but not all (e.g. Ga), show asymmetries in distribution and association behavior:**

iv. **SCAL(-ADD)s and ADDs frequently pattern together ⇔ EXCL**

3.1 Differences in Particle Inventories

3.1.1 Languages without *only*-style EXH

In some languages, it is not possible to identify a bona fide, English type EXCL with truth-conditional, alternative exclusion semantics:

- **Burmese** (Ozerov 2010)**:** Sentence-medial particle *pɛ:* sometimes translates as *only*, but its main IS-function seems to lie in the marking of non-default focus-background partitions with another constituent but VP in focus (7):

  pɛ: typically expresses focus contrast where it occurs; cf. (40):

(40) **Context:** An artful lion lies 'sick' *in a cave* and devours every animal, which comes to ask for his health. The fox comes to visit him, but feels s.th. is wrong)

da hnĩ.	*gu*	*pauʔwa.*	*ka*.	**pɛ:**	θ u	yaʔ
this with	cave	door	from		3	stop

pyi:	chĩ θ e.	ci:	ko	o	me:	tɛ
NF	lion	big	OBJ	shout	ask	REAL

'Because of this he stopped FROM THE ENTRANCE OF THE CAVE and shouted to the big lion.' (i.e. he does not go into the cave)

⇒ When attaching to elements with higher scalar alternatives, *pɛ:* can take on an exlusive meaning. The upward-oriented contrast (no longer a servant, but (already) a monk) does not license *pɛ:*

(41)

ŋa ka.	*məthi:* mə	phyiʔ	θ e:	phu:	
1 S	monk NEG1	be	still	NEG2	

kwa.||	*kaʔpiya ʔəshĩ.*	**pɛ:**	ʃi. θ e: ta
APP	servant rank		be still NMLZ/REAL

'I am still not a monk. I am still **only** a SERVANT.'

⇒ In some cases, *pɛ:* does occur in upward-oriented (more than expected) contexts, though ⇒ non-exclusive

(42) (A new worker is instructed towards his interview with the boss: "If he asks if you prefer **to be paid daily or monthly**, answer:)

hnə myo: səloũ: **pɛ:** hniʔ θ ɛʔ pa tɛ
two kinds all like POL REAL
'I like both of them' (cf. # I (only) like it either way.')

⇒ *pɛ:* cannot attach to NUM+CL (⇒ *thɛ:*), but it attaches to a restricted class of numerically modified NPs that do not tolerate classifiers, again meaning *only*:

(43) kəle: ka. *shɛ* *hniʔ* **pɛ:** ʃi. θ e: tɛ
child SUBJ ten year have still REAL
'The child (I) was only ten years old.'

- **Basaá** (Grassfield Bantu, Leffel et al. 2012): Basáa is analysed as having both exclusive and additive cleft constructions (n-clefting vs k-clefting)

(44) a. Hiɔl **nyɛ́** **-n** ɓalêt ɓá- bí- náŋâ
1.H. 1.him N 2.teachers 2.SM- PST2- invite
'It was Hiol that the teachers invited.'

b. Hiɔl **nyɛ́** **-k** ɓalêt ɓá- bí- náŋâ **nyɛ́**
1.H. 1.him K 2.teachers 2.SM- PST2- invite 1.him
'It was Hiol that the teachers invited.'

⇒ Leffel et al. (2013) analyse the left-peripheral pronoun in *–n* and *–k* clefts as the overt spell out of a FOC-feature providing a distinguished variable (Kratzer 1991, Wold 1996) to the semantic derivation; *–n* and *–k* denote focus operators over the alternatives provided by the distinguished variable.

⇒ Since the focus alternatives are used up by *–n*, the exclusive marker *ndígí*, normally translated as *only*, cannot be conventionally associating with focus: *ndígí* ≠ *only*-style EXCL

(45) (**ndígí**) Hiɔl (**ndígí**) nyɛ́ **-n** Tɔnyɛ́ á bí- tɛ́hɛ́
1.H. 1.him N T 1.SM- PST2- see
'It was only Hiol who Tonye saw.'

⇒ Since *ndígí* normally occurs in postverbal position, an analysis as adnominal modifier (= *sole*; Beaver & Coppock 2011) is problematic as well.

3.1.2 Languages with apparent EXCL-proliferation:

Other languages appear to exhibit proliferation of EXCL particles: **Ga (Kwa)**

- At first sight, **Ga** has a whole series of basic exclusives (46a), which also combine into complex exclusives (46b) (Renans 2013, this workshop):

(46) a. basic: kome, too, pɛ, kɛkɛ, sɔɔ

b. complex EXCL: kome too, kome pɛ, kome too pɛ, too pɛ, kɛkɛ pɛ, etc.

⇒ Different EXCLs can occur alternatively in some contexts (47a), but not in others (47b), and they give rise to different interpretations in a third type of context (47c):

(47) a. Priscilla he sɛbɛ **✓kome pɛ / ✓kome too** nyɛ
P. bought eggplant yesterday
'Priscilla bought only (one) eggplant yesterday.'

b. Priscilla he sɛii ***kome pɛ / ✓kome too** nyɛ
P. bought chair.PL yesterday
'Priscilla bought only chairs yesterday.'

c. Kofi he atomo **✓kome pɛ / ✓kome too** nyɛ
P. bought potato yesterday
'Kofi bought only one potato/ only potato(es) yesterday.'

⇒ Most of the EXCL-candidates are not real exclusives! cf. Renans (2013, this workshop) ≠ Coppock & Beaver (2013)

- **General lesson:** Not everything that looks like an EXCL in the European sense at first sight turns out to be one on closer scrutiny (Ga); Languages may well lack truth-conditional and conventionally associatin *only*-type EXCLs altogether (Burmese, Basaá).

3.1.3 Languages without SCAL

Hindi (cf. (9b)) is not alone in lacking lexical SCALs. In **Nłeʔkepmxcin** (Salish), scalarity is not lexically coded by means of a separate lexical item either Instead, the additive particle *ʔeɬ̓λ̓uʔ* can get a scalar interpretation depending on context (Koch & Zimmermann 2009)

(48) **CONTEXT I (ADD)**: Bill yelled at all the pets in the house and …
CONTEXT II (SCAL): The boss was angry. He yelled at the workers and ...

ċé=**ʔeɬ̓λ̓uʔ** e=púsˌ e=λ̓íx̣ʷ-Ø-Ø-es.
CLEFT=ʔeɬ̓λ̓uʔ DET=cat COMP=yell-TRANS-3O-3S

i. 'He also yelled at [the cat]$_{FOC}$.' (in CONTEXT I)
ii. 'He even yelled at [the cat]$_{FOC}$.' (in CONTEXT II)

3.2 Structural Constraints on particle placement

- ***Observation:***

  Cross-linguistically, structural constraints on particle placement differ, often depending on the general strategies of focus marking available in a given language: Term-marking vs PRED-marking languages; syntactic/morph marking

⇒ Both strategies can be derived from the IS-status of V(P)-predicates as default foci = psychological predicates (Paul 1880, Löbner 1990, Zimmermann, forthcoming):

i. **Term-marking languages**: Argument and adjunct terms are non-default foci and hence require explicit marking: e.g. Medumba

ii. **PRED-marking languages:** The predicative nature of focused constituents is grammaticalised in the language; focused DPs must be turned into structural predicates by means of clefting: e.g. Nłeʔkepmxcin

- **In term marking Medumba,** EXCLs are strictly adnominal and only attach to NP/DP-constituents. In case of association with verb focus, the verb must be nominalized by means of V-reduplication and addition of a NMLZ to the V-copy (Kouankem & Zimmermann, in prep.):

(49) nǎnά náˀ **lùˀ** bí **á** **ndàˀ** **nù** **lùˀù**
Nana P_6 take knife FOC EXCL INF take
'Nana ONLY TOOK a knife.'

NB: The associate of EXCL *ndàˀ* 'only' is always morphologically marked for focus by *á* ⇒ **conventional association with focus**

ndàˀ intervenes between FOC-marker and the focus constituent: [á ndàˀ NP]

⇒ ADDs work differently from EXCLs and do not occur in verb focus contexts, which are expressed by means of conjoined VPs (50a) or serial verb constructions (50b):

(50) a. bὰg náˀ ʒùn mbàb mbɛ̀n fɛ̀d mbàb
we P6 buy meat then eat meat
'We bought the meat and (then) we (also) ate the meat'

b. bὰg náˀ ʒùn mbàb nfɛ̀lə̀
we P6 buy meat eat
'We bought the meat and (also) ate it.'

- In PRED-marking Nłeʔkepmxcin, EXCL *ƛ̓uʔ* is realised as a 2CL in the auxiliary cluster. It invariably associates with the sentence-initial verbal focus (Koch & Zimmermann 2010):

(51) **nʕʷłqʷ-ə́m**=kn=**ƛ̓uʔ=**neʔ t=e=heʔúseʔ.
boil-MDL=1SG.InCl= ƛ̓uʔ=DEM OBL=DET=egg

'I only [boiled an egg]$_{FOC}$.' / 'I only [boiled]$_{FOC}$ an egg.'
NOT: * 'Only [I]$_{FOC}$ boiled an egg.' / * 'I boiled only [an egg]$_{FOC}$.'

⇒ EXCLs conventionally associate with focus in this language, see also below:

- Particle placement seems particularly flexible in European intonation languages with focus accenting, as intonational focus marking does not impose any categorial constraint on the focus associates ≠ languages with structural focus marking in the syntax

3.3 Differences in syntactic distribution & association behaviour

- **Recurring patterns:**

i. EXCLs exhibit conventional association with focus and require their associate to be structurally marked for focus (if only implicitly so) in all languages

= *only* (Beaver & Clark 2008)

ii. (SCAL-) ADDs show a more liberal association behaviour with focus as they do not require (all of) their associates to be focus-marked.

⇒ Unlike in intonation languages, differences in association behaviour manifest themselves in the form of a different syntactic distribution in languages that mark FOCs and CTs by (morpho-)syntactic means!

3.3.1 Bura (Central Chadic) (Hartmann & Zimmermann 2008)

SVO, categorical [S] [VP]-organisation ⇒ preverbal subject = default topic

In **Bura**, focused subjects are obligatorily marked in situ by focus marker *an* (Hartmann & Zimmermann 2012)

i. **Subject associate of EXCL *daci* must be focus marked** by *an*.

(52) a. **Mtaku daci** *(an) liha Biu.
M. EXCL FOC go B.
'Only MTAku went to Biu.'

b. Mtaku *(an) liha Biu **daci**.
M. FOC go B. EXCL
'Only MTAku went to Biu.'

⇒ **EXCL *daci* conventionally associates with focus**

ii. **Subject associate of (SCAL)ADD *(wala) ma* must not be focus marked** by *an*.

(53) a. **Ladi ma** (*an) thlika whada ni.
L. ADD FOC plant peanut DEF
'Ladi, too, grew peanuts.'

b. **Ladi** (#an) thlika whada **ma**.
L. FOC plant peanuts ADD
'Ladi, too, grew peanuts.'

(54) **Wala Kubili ma** tsa si.
SCAL K. ADD 3sg come
'Even KUBILI appeared.'

⇒ **ADD *ma/tsuwa* and SCAL-ADD *wala…ma* do not conventionally associate with focus (alone)**. Their 'associate subjects' often function as contrastive topics (cf. Krifka 1999); see also resumptive subject pronoun in (54).

(55) QUD: Who grew what?

Context: [Magira grew peanuts, and Kubili grew peanuts, …]

ka **Ladi ma** thlika whada ni.
and L. ADD plant peanut DEF
'and LADI, too, grew peanuts.'

Q: ***Free association with focus, or general association with CT/FOC-alternatives?***

Difficult to tell since focus on non-subjects need not be explicitly marked (Hartmann & Zimmermann 2012; see also Tonhauser, this workshop)

3.3.2 Ngamo (West Chadic) (Grubic & Zimmermann 2012)

SVO, categorical [S] [VP]-organisation ⇒ preverbal subject = default topic

In Ngamo, focused subjects are obligatorily marked by inversion to postverbal position, preceded by the background marker *–i/-ye* (Grubic, this workshop)

⇒ **Focus-sensitive particles can occur in three positions:**

sentence-initially, preverbally, or in post-VP position: **(PRT) S (PRT) V O (PRT)**

i. **Subject associate of EXCL *yàk('i)* must be focus-marked** by inversion

(56) a. Sàl-ko bànò-ì **yak *Kulè***
build-PFV house-BM EXCL Kule
'Only KULE built a house.'

b.#(**Yak**) *Shuwa* (**yak**) sàl-ko bànò (**yàk'i**).
EXCL Shuwa EXCL build-PFV house EXCL
INTENDED: 'Only SHUWA built a house.'

⇒ **EXCL *yàk('i)* conventionally associates with focus**

ii. **Subject associate of SCAL *har* and ADD *kè* must not be focus-inverted** (57a). *Kè* / *har* associate with subjects in canonical preverbal position (57b).

(57) a # Sàlko bànò-i **kè / har Kulè**.
build-PFV house BM ADD SCAL Kule
INTENDED: 'KULE also built a house.' / 'Even Kule built a house.'

b. (**Kè/Har**) **Kulè** (**kè/har**) sàlko bànò (kè'ê/hàr'î).
ADD/SCAL Kule ADD/SCAL build-PFV house ADD/SCAL
'KULE built a house, too.' / 'Even KULE built a house.'

⇒ **ADD *kè* and SCAL *har* do not conventionally associate with focus (alone)**. Again, their 'associate subjects' can frequently function as contrastive topics.

3.3.3 **Nłeʔkepmxcin** (Salish) (Koch & Zimmermann 2010)

As in Bura and Ngamo, **additive particles in Nłeʔkepmxcin differ from exclusive particles in distribution and association behavior**.

i. EXCL *ƛ̓uʔ* must be realized as a second position clitic and can only associate with the (clefted) predicate focus in the left periphery: **All associates of *ƛ̓uʔ*= must be focus-marked**

(58) cúkʷ=**ƛ̓uʔ**=weʔ **e=kéyx** e=wík-t-Ø-ne.
cleft$_{EXCL}$= ƛ̓uʔ=DEM DET=hand COMP=see-TR-3O-1SG.S
'I only see [a hand]$_{FOC}$ there.' (literally 'It's only [a hand]$_{FOC}$ that I see.')
not: * 'Only [I]$_{FOC}$ see a hand there.' / * 'I only [see]$_{FOC}$ a hand there.')

⇒ **EXCL *ƛ̓uʔ* conventionally associates with focus**

ii. **ADD *ʔełƛ̓uʔ*** (which can take on a scalar reading depending on context) need not be realized as a 2CL, but can also occur in sentence-final adverbial position (59). It **does not require its associate to be focus marked by clefting** (60).

(59) ʔeł [nés=ekʷu=xeʔ míl't-m-Ø-s e=snuḵʷnúḵʷeʔ-s]$_{FOC}$ **ʔełƛ̓uʔ.**
and go=EVID=DEM visit-TR-3O-3S DET=friend[red]-3poss ADD
'and she (also) [visited her FRIENDS]$_{FOC}$ (too).'

(60) wík-t-Ø-s=ekʷu=**ʔełƛ̓uʔ=**xeʔe ***e=Tóm*** e=səxʷsúxʷ.
see-TR-3O-3TS=EVID=ADD=DEM DET=Tom DET=grizzly.bear
(Bill saw the grizzly and ...) 'TOM also saw the grizzly bear.'

⇒ **Additive *ʔełƛ̓uʔ* does not conventionally associate with focus**. Again, subject associates frequently function as contrastive topics.

3.3.4 Vietnamese (Austro-Asiatic, Mon-Khmer, Hole 2008, Thuan Tran this workshop), **Thai** (Tai-Kadai)

EXCLs, ADDs, and SCAL-ADDs in Vietnamese consist of two discontinuous parts, one attaching to the focused constituent and one marking the background (S without FOC and CT); see Hole (2008, Tran, this workshop)

i. Same as with English *even*, **SCALs can associate with FOC and CT simultaneously**: **general association with alternatives.**

(61) QUD: Who supported whom?

IQUD: Whom did t**he liberals** support? Whom did **the Tea Party** support?

[Người của Tea Party]$_{CT}$ *thì* **thậm chí** [Hillary]$_{F}$ họ **cũng** ủng hộ.
person of Tea Party TOP SCAL Hillary they ADD support
'The TEA PARTY/ members even supported HILLARY\.'

ii. ADDs can associate with FOC and CT as well:

(62) **Context:** The Mayor signed many of Nam's official documents, for instance, his marriage certificate, his child's birth certificate.

Q: Really? What about HIS RECOGNITION AWARD/? Who\ signed that/?

[Bằng khen của Nam]$_{CT}$ thì [Chủ tịch thành phố]$_{F}$ cũng ký.
award recognition of Nam TOP chairman city ADD sign
'Nam's recognition award the Mayor also signed.'

iii. EXCLs can only associate with FOC, for the principled reason outlined in §2.2.3

(63) QUD: Who invited whom?

A: [Nam]$_{CT}$ thì chỉ mời [Hoa]$_{F}$.
Nam TOP EXCL invite Hoa
'Tan only invited Lan.'
NOT: 'Only Nam and Hoa stand in the meet-relation, nobody else met anybody else.'

Q:	Is association with alternatives the general case, and conventional association with focus just a special instantiation of the general pattern: obligatory with EXCL because of their lexical semantics; optional with SCALs and ADDs?

3.3.4 EXCLs and ADDs exhibit parallel behaviour in Ga

Distributional asymmetries between EXCLs and ADDs are not compulsory: Both particles can attach to preverbal subjects, which can be focused in situ:

(64) Maria **hu/pɛ:** kane wolo nyɛ
Mary ADD/EXCL read book yesterday
'MARY read a book, too, yesterday. / Only Mary read a book yesterday.'

3.4 Conclusions

The cross-linguistic investigations yield a number of robust generalizations, which have the potential for cross-linguistic universals:

- **EXCL:** Particles denoting alternative-sensitive operators with truth-conditonal exclusive meaning conventionally associate with focus for principled reasons:

  Exclusion semantics requires alternatives, and general association with CT-FOC-alternatives is blocked because of exclusion semantics:

(G1) EXCL conventionally associate with focus across languages

- **SCAL-ADDs:** Also require alternatives because of their scale-related lexical interpretation: **Entailments are evaluated on the focal scale.**

  Because of their anaphoric additive meaning component they are also sensitive to the alternative dimension invoked by CTs.

(G2) SCAL-ADDs conventionally associate with CT and FOC

- Association behaviour of ADDs is least restricted by their underlying semantics, as neither scales nor alternatives are required for their interpretation.

i. Underlying meaning merely anaphoric: sentence-connecting function; cf. (39):

⇒ FREE ASSOCIATION

ii. Sensitive to alternatives imposed by FOC- and CT-constituents in general:

⇒ GENERALIZED CONVENTIONAL ASSOCIATION WITH CT/FOC

iii. Sensitive to iQUDs only: On this discourse-semantic interpretation, ADDs would indicate that there is another true answer to the immediate QUD than the ADD-proposition, thereby counteracting/preempting or correcting pragmatic exhaustification in answers.

⇒ !!! CONVENTIONAL ASSOCIATION WITH FOCUS !!!

(65) $[[ADD_{CONV.ASS}]](p)(iQUD) = p;$

defined iff there is at least one other true answer q to iQUD

⇒ This kind of discourse-additivity may be behind the phenomenon of cataphoric additives, as found e.g. in Ishkashimi (Karvovskaya, this workshop)

(66) Q: So is it **only** Zarifa who is going to Ryn? Lena is not going?

A: Zarifa-**məs** Ryn-əs šu, Lena-**məs** Ryn-əs šu.
Zarifa-ADD Ryn-mod go.3sg Lena-ADD Ryn-mod go.3sg
'Both Zarifa and Lena go to Ryn.'

4. Conclusions and Outlook

- Cross-linguistic investigation yield some recurring patterns concerning the distribution, interpretation, and association behavior of EXCL, ADD, and SCAL(-ADD) particles in natural languages: Cross-linguistically, additive and scalar-(additive) particles tend to exhibit (i.) a wider syntactic distribution, in not necessarily associating with focus constituents (alone); and (ii.) a more flexible interpretation, in not necessarily operating on the set of focus alternatives. Corresponding with (ii.), scalar and additive particles tend show association with alternatives in general, whereas exclusives appear to conventionally associate with focus in all languages under discussion.

EXCLs and SCAL-ADDs behave in surprisingly uniform ways across languages!

- **Desiderata for future research:** Future research should concentrate more on the semantic analysis of SCALs, SCAL-ADDs, and ADDs, regarding the following questions:

Q1: Are purely scalar or mirative particles, without anaphoric properties and existential presuppositions, only sensitive to focus constituents: Conventional association with focus?

Q2: Do ADDs in different languages show the diverse syntactic and semantic behaviour laid out in §3.4?

Q3: Are there really three different kinds of ADDs in natural language, and, if so, can more than one kind be instantiated in natural language?

Q4: Are there correlations between sentence-connecting, cataphoric, and CT-sensitive ADDs, on the one hand, and their semantic association behaviour (free, conventional focus, conventional alternatives), on the other?

… TO BE CONTINUED …

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