Towards a typology of focus quantifiers

1 Introduction: What are focus quantifiers?

Preliminary definition:
FOCUS QUANTIFIERS are expressions that quantify over sets of alternatives associated with the denotation of a focused constituent.

- FOCUS PARTICLES: *only*, *even*, *too* etc. (cf. Horn 1969, Jacobs 1983, van der Auwera 1984, König 1991, etc.)

(1) He *only* bought [the *apples*]. (...but he didn’t buy the pears.)
(2) He *even* insulted [the *POPE*]. (...in addition to other, less important, people.)
(3) There have *also* been some [SMALLER] problems. (...in addition to major ones.)

(4) Albanian *vetëm* ‘only’, *dhe* ‘also, too’
   a. *vetëm* ai e di.
      ‘Only he knows it.’ (Buchholz & Fiedler 1987: 393)
   b. *dhe* atje nuk u mësua.
      ‘There, too, he didn’t become acclimated.’ (Buchholz & Fiedler 1987: 394)

(5) Wardaman *gabarri* ‘also’, *wangi* ‘only’
   a. yijurn nga-erde-rrri nga-erde-rrri gabarri ngayug-ji
      face.ABS 3SG>1SG-know-PAST 1SG-know-PAST also 1SG-ERG
      ‘He recognized me, and I also recognized him.’ (Merlan 1994: 306)
   b. wonggo digirrij Ø-bu-ndi wangi Ø-bu-ndi wabirmağun
      not dead.ABS 3SG-hit-PAST only 3SG-hit-PAST grazed
      ‘He didn’t shoot him dead, he only grazed him.’ (Merlan 1994: 311)

- AFFIXAL FOCUS QUANTIFIERS: similar function, but different morphological make-up

(6) Finnish *-kin* ‘too’, *-kaan* ‘either’ (König 1991: 18)
   a. minä-*kin* olen hankkinut auto-n.
      I-too I.have got car-ACC
      ‘I, too, have got a car.’
   b. olen hankkinut auto-n-*kin*
      I.have got car-ACC-too
      ‘I have got a CAR, too.’
   c. en ole hankkinut auto-a-*kaan*
      NEG.1SG have.NEG got car-PART-either
      ‘I haven’t got a CAR either.’
   d. minä-*kään* en ole hankkinut auto-a
      I-either NEG.1SG have.NEG got car-PART
      ‘Neither have I got a car.’
(7) **Japanese** –*mo* ‘too’
   Taro-*mo* sakana-o *tabemasu*
   Taro-*too* fish-ACC eats
   ‘Taro, too, eats fish.’
   König (1991: 18)

(8) **Oromo (Afaan)** –*s* ‘too’
   hakaa fi [fuula isaa] -*s* dhiqate
   hand and face his -too washed
   ‘He washed his hands and the face, too.’ (Griefenow-Mewis 2001: 58)

(9) **Amharic** –*mm* ‘too’
   [How old are you?]
   – Asra *hulätt*. – *one-mm.*
   ten two I-too
   – Twelve. – Me too.’

(10) *wòbitu-mm qonño* nat
    Wubitu-too pretty is
    ‘Wubitu, too, is pretty.’

(11) *wòbitu qonño-mm* nat
    Wubitu pretty-too is
    ‘Wubitu is also PRETTY.’
    Leslau (1995: 883)

- **PHRASAL FOCUS QUANTIFIERS:** English *as well, let alone, in particular*;
  German *geschweige denn*; Spanish *no más, por lo menos* etc.

(12) *At least* he hasn’t KILLED me.

(13) You'd have trouble swinging a gerbil, *let alone* a CAT, in the kitchen.

(14) **Albanian** *bile edhe* ‘even’
    *bile edhe ai e di*
    even too he CL.ACC knows
    ‘Even he knows it.’ (Buchholz & Fiedler 1987: 394)

(15) **Tzotzil** *ha? no?oš* ‘only’ (*ha?:* focus marker; *no:* ‘still’; *oš:* non-present)
    la? no?oš htob cátotbe *timi šavak’ yeče*
    FOC only twenty I.will.give.you if you.give.it like.that-CL
    ‘I’ll only pay twenty, if you’ll give it for that’.

- **DISCONTINUOUS FOCUS QUANTIFIERS**

(16) **Arabic** *mā ... ?illā* ‘not...but, only’
    *mā yuhibbu ?illā nafsahu*
    NEG he.loves but SELF.ACC.3SG
    ‘He loves only himself.’
    Fischer & Jastrow (1996: 390)

(17) **Hebrew** *lo...éla* ‘not...but, only’
    *hem lo hisigu éla heskem Helki*
    they not reached but agreement partial
    ‘They only reached a partial agreement.’
    Glinert (1989: 251)

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1 From John Haviland’s online grammar: http://www.zapata.org/Tzotzil/Dialogs/dlg8.html.
Modern Breton *ne...nemet* ‘not ... except, only’

ne welis nemet daou labous-ig en neizh
not saw except two bird-DIM in nest
‘I only saw two birds in the nest.’
Press (1986: 183)

French *ne...que* ‘not...but, only’

Je n’ai qu’un livre.
I NEG-have but-a book
‘I only have a book’

English *not ... until*

He won’t leave the country until the end of this year.
(cf. German: *erst am Ende dieses Jahres*)

- SUMMARY: morphological parameters in the encoding of focus quantifiers:
  (a) free vs. bound focus quantifiers (*also* vs. Fin. *-kin*)
  (b) monomorphic vs. polymorphic focus quantifiers (*only* vs. *at least*)
  (c) continuous vs. discontinuous focus quantifiers (*at least vs. not ... before*)

- four major types of focus quantifiers:

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focus quantifiers
   polymorphic          monomorphic
      DISCONTINUOUS      CONTINUOUS    FREE        BOUND
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Diagram 1: Morphological types of focus quantifiers

2 Overview of the talk

1. the FUNCTION OF FOCUS QUANTIFIERS: quantification over the domain of alternative values contrasting with the focus

2. further PARAMETERS OF VARIATION:
   I SEMANTIC parameters
   (a) the type of quantification expressed
   (b) discourse pragmatic status of the host sentence
   (c) scalar vs. non-scalar focus quantifiers
   II DISTRIBUTIONAL parameters
   (a) position relative to the focus
   (b) interaction with negation
   (c) restrictions on the type of the focus

3. SUMMARY AND OUTLOOK: correlations between parameters of variation

3 The function of focus quantifiers: exclusion and addition of alternatives

- why ‘quantification over sets of alternatives contrasting with the focus of a sentence’?

(21) - Who did John kiss?
- He kissed [Mary].

- the question in (21) presupposes that John kissed someone; moreover, some contextually predetermined set will always be given/under discussion (cf. Rooth 1985)
(22) John kissed \( \{ \text{Mary, Lucy, Jane} \} \) → FOCUS
alternatives under discussion

- sentences with *only* provide information not only about the focus value (*Mary*), but also about the alternative values (*Lucy, Jane*)
- the open proposition *John kissed x* applies to the value *Mary*, but not to *Lucy* or *Jane*

(23) John only kissed \( \{ \text{Mary, Lucy, Jane} \} \) → FOCUS

(24) There is no \( x \) other than *Mary* such that John kissed \( x \).

\[ \rightarrow \text{only expresses negated existential quantification over the domain of alternative values (¬∃x...)} \]

- *also* and *too* represent a different type of focus quantifier: they *add* the focus to a previously established non-empty set

(25) John also kissed [Mary].
(26) John also kissed \( \{ \text{Mary, Lucy, Jane} \} \) → FOCUS

\[ \rightarrow \text{too expresses existential quantification over the domain of alternative values (∃x...)} \]

- are ‘focus quantifiers’ really ‘quantifiers’?  
- some focus quantifiers stand in a systematic relation to ‘ordinary’ quantifiers

(27) All politicians are corrupt. \( \forall x [x \text{ is a politician} \rightarrow x \text{ is corrupt}] \)
(28) Only politicians are corrupt. \( \forall x [x \text{ is corrupt} \rightarrow x \text{ is a politician}] \)

- two semantic types of focus quantifiers: EXCLUSIVE vs. ADDITIVE focus quantifiers
- EXCLUSIVE: *only, just, simply, merely, not ... until*, etc.
- ADDITIVE: *too, even, also, as well*, etc.

\[ \text{focus quantifiers} \]

\[ \text{ADDITIVE} \quad \text{EXCLUSIVE} \]
\[ (\text{too}) \quad (\text{only}) \]

4 Further semantic parameters of variation

4.1 The discourse pragmatic status of focus quantifiers

- sentences with focus quantifiers have a ‘bi-propositional structure’

(29) John *only* likes [Mary].

\[ \text{John likes Mary AND John likes no one other than Mary.} \]

\[ \text{PREJACENT} \quad \text{ANNEX} \]
• PREJACENT: host sentence; the sentence minus the focus quantifier
• ANNEX: the quantificational statement contributed by the focus quantifier
• PREJACENT vs. ANNEX and PRESUPPOSITION vs. ASSERTION
• only: sentence negation affects the ANNEX but not the PREJACENT

(30) Only [John] attended the meeting.
   a. PRESUPPOSITION: John attended the meeting (PREJACENT)
   b. ASSERTION: No one other than John attended the meeting (ANNEX)

(31) It is not true that only [John] attended the meeting.
   a. PRES: John attended the meeting (PREJACENT)
   b. ASS: someone other than John attended the meeting (ANNEX)

→ in sentences with only the PREJACENT is presupposed while the ANNEX is asserted

• converse situation with also, too: under negation it is the ANNEX that is preserved while the PREJACENT is negated

(32) [John] also attended the meeting.
   a. PRES.: Someone other than John attended the meeting. (ANNEX)
   b. ASS.: John attended the meeting. (PREJACENT)

(33) It is not true that [John] also attended the meeting.
   a. PRES.: Someone other than John attended the meeting. (ANNEX)
   b. ASS.: John did not attend the meeting. (PREJACENT)

→ in sentences with also the PREJACENT is asserted while the ANNEX is presupposed

<table>
<thead>
<tr>
<th></th>
<th>only</th>
<th>too</th>
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<td>presupposed</td>
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<tr>
<td>PREJACENT</td>
<td>presupposed</td>
<td>asserted</td>
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Table 1 Status of sentence components

• according to the status of the annex we can distinguish between ASSERTIVE (e.g. only) and NON-ASSERTIVE focus quantifiers (also, even etc.)

4.2 Scalar vs. non-scalar focus quantifiers
• focus quantifiers quantify over either ordered or unordered sets of alternatives

(34) The chancellor was there, too.
(35) Even the chancellor was there.
• (34): unordered set of alternative sentences:
  {The chancellor was there, The secretary was there, The vice-chancellor was there ...}
• (35): the set of alternatives is ordered:
  <The secretary was there, The vice-chancellor was there, The chancellor was there>
(36) represented as a scale:  
(of likelihood)  

- The chancellor was there  
- The vice-chancellor was there  
- The secretary was there  
...  

- *even* marks its prejacent as the strongest statement from a set of ordered alternatives

(37) – Did he have five beers? 
– I think he even had *six* beers. 
- distinction between scalar and non-scalar focus quantifiers (*even vs. too*) 
- some focus quantifiers have both scalar and non-scalar readings

(38) I only had *FIVE* beers. (…not six) (scalar *only*)  
I even had *SIX* beers (…not only five) (even, always scalar)  
# I also had *SIX* beers (…not only five). (no scalar use of *also*)

(39) I have only bought apples. (…not pears) (scalar *only*)  
I have also bought apples. (…in addition to pears) (non-scalar *only*)

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5 Distributional parameters of variation

5.1 The position of the focus quantifier relative to the focus

- three major configurations:  
  1. focus quantifier is adjacent to the focus  
  2. position of FQ is fixed  
  3. linear or hierarchical relationship between focus quantifier and focus

- FQ is adjacent to the focus: most (but not all!) affixal FQs and some focus particles

(40) **Turkish** *de* ‘too’ (König 1991: 17)  
  a. Oraya [ben *de*] gittim.  
     there I too went  
     ‘I went there too’  
  b. Ben [oraya *da*] gittim.  
     there too went  
     ‘I went there too (as well as elsewhere)’  
  c. Ben oraya [gittim *de*].  
     there went too  
     ‘I also went there.’

(41) **Hebrew** *gam*  
  gam mifalénu orez teenim  
  also our.factory packs pigs  
  ‘Our factory, too, packs pigs.’
(42) mifalénu gam orez teenim
    our.factory also packs pigs
‘Our factory also PACKS pigs.’
(43) mifalénu orez gam teenim
    our.factory packs also pigs
‘Our factory also packs PIGS.’ (Glinert 1989: 248)

(44) German selbst ‘even’
    a. Man kann selbst die größten Buchstaben kaum erkennen.
       one can even the biggest letters hardly recognize
‘Even the biggest letters are hardly visible.’

    • focus quantifier occupies a fixed position in the clause (only stress identifies focus)

(45) Mandarin zhī ‘only’ (preverbal position)
    a. Lào Wáng zhī hē chá.
       Lao Wang only drinks tea
    b. Wō yě xiě shū.
       I too write book

(46) Tzotzil haʔ noʔoš (second-position particles)
    haʔ noʔoš čvabah li Šun-e.
    FOC only will.play DET John-CL
‘John will only [play]F’ or ‘Only [John]F will play’

(47) Mixtec –ni ‘only, merely, just’ (VP-internal enclitic)
    kʷiʔti kʷiʔi kee=ni=ri uù
    just go eat=REST=1 two
‘I’m just going to eat two.’
Macaulay (1996: 132)

    • hierarchical dependency: only

(48) English only: c-command

(49) One cannot undo a lifetime of damage and pain [[in three weeks] only].

\[\text{John} \quad \text{has} \quad \text{only} \quad \text{introduced his girl friend to his parents} \]

\[\text{c-command} \]
• linear patterns: also; interaction with stress; also either precedes the entire focus (unstressed), or it follows the focus (stressed); may not be contained in the focus

(50) I’ve also introduced my colleague to [my BROTHER]F. (…as well as to my sister)
(51) I’ve also introduced [my COLLEAGUE]F to my brother. (…not only my boss)
(52) [I]F have ALSO introduced my colleague to my brother. (…just like you)

5.2 Interaction with negation
• additive focus quantifiers are often polarity-sensitive
• can be used in either asserted or negated sentences
• English too vs. either, Spanish tambien vs. tampoco, French, aussi vs. non plus

(53) I don’t know him.
    I don’t know him either.
    TOO [NOT [I know him]].

• polarity-sensitivity of scalar focus quantifiers: German sogar vs. einmal ‘even’

(54) Ich habe sogar den Papst kennengelernt.
    I have even the Pope met
    ‘I have even met the Pope.’

(55) Ich habe nicht einmal Lothar de Maizière kennengelernt.
    I have not even Lothar de Maizière met
    ‘I haven’t even met Lothar de Maizière.’
5.3 Restrictions on the type of the focus

- German *selbst* is used only with nominal or clausal foci

(56) Sogar/selbst der Präsident weiß das nicht.
    even the president knows that not
    ‘Even the president does not know that.’

(57) Er hat mich sogar/*selbst geschlagen.
    he has me even hit
    ‘He even hit me.’

- Hebrew *איל: only with verbs and adjectives*

(58) isuk ze aH mevazbet et zmana
    activity DEM only wasted OM her.time
    ‘The activity only wasted her time.’ (Glinert 1989: 248)

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focus quantifiers

[– sel. restrictions] [+ sel. restrictions]

polarity cat. of focus etc.

6 Summary: Parameters of variation

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<tr>
<th>PARAMETER</th>
<th>values</th>
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<tr>
<td>MORPHOLOGICAL</td>
<td>(a) free vs. bound</td>
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<td>(b) monomorphic vs. polymorphic</td>
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<td>(a) interaction with polarity</td>
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<td>(b) restrictions on the category of the focus</td>
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7 Some hypotheses and an outlook

- correlations between parameters of variation
- EXCLUSIVE focus quantifiers tend to PRECEDE the focus while ADDITIVE ones often FOLLOW it
- AFFIXAL focus quantifiers are usually ADDITIVE, and if they are EXCLUSIVE, they seem to be always SCALAR
ADDITIVE focus quantifiers seem to be always NON-ASSERTIVE, whereas EXCLUSIVE ones are generally ASSERTIVE

DISCONTINUOUS focus quantifiers seem to be always EXCLUSIVE

only ADDITIVE focus quantifiers seem to be POLARITY-SENSITIVE

major patterns of correlations:

<table>
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<th>Type I</th>
<th>Type II</th>
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<tbody>
<tr>
<td>additive</td>
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<td>not polarity-sensitive</td>
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<td>often follow focus</td>
<td>typically precedes focus</td>
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work programme: build a database of focus quantifiers, classified according to the dimensions pointed out above

refine parameters of variation; can all focus quantifiers (distinctively) be classified in terms of these parameters?

areal investigation: focus particles in Europe

References


