he Syntax of the *not only...but also...* onstruction: A Linearization Accoun

Sarah Hye-yeon Lee
sarahhl@usc.edu

University of Southern California (current)
Seoul National University

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Roadmap

1. Previous accounts
2. Word order possibilities of *not only*
3. Negative inversion
4. An HPSG Analysis
5. Summary

1. Previous accounts

Previous accounts

Bianchi and Zamparelli (2004): "edge coordinations" in Italian and English

1) a. Gianni mi ha comprato **non** quest'auto, **ma** quella.
    b. John bought me **not** this car, **but** that one.
2) a. Gianni ha invitato alla festa **non solo** Maria, **ma anche** Lucia.
    b. John invited to the party **not only** Mary, **but also** Lucy.
3) a. Ho venduto **prima** l'auto, **poi** la pelliccia.
    b. **First** I sold my car, **then** my fur coat.
4) Gianni invita **ora** Maria, **ora** Lucia.
    Gianni invites now Mary now Lucy.

Previous accounts

Ellpsis in "edge coordinations"

5)   a. Gianni ha invitato alla festa non solo Maria, ma ~~(lui) ha invitato alla festa~~ anche Lucia.

        b. John invited to the party not only Mary, but ~~(he) invited to the party~~ also Lucy.

Previous accounts

Word order patterns (Bianchi and Zamparelli 2004; Gallego 2005)

6) Adjacent orders
        a. He invited *not (only) Mary, but (also) Lucy*. (adjacent final)
        b. *Not (only) MARY, but (also) LUCY* he decided to invite. (adjacent initial)

7) Non-adjacent orders
        a. I did*n't invite (only) Mary, but (also) Lucy.* (non-adjacent final)
        b. *Not (only) Mary* did I invite, *but (also) Lucy*. (non-adjacent initial)

Only and *also* as optional adverbials
Not only...but also... = not...but...

2. Word order possibilities of *not only*

Word order possibilities of *not only*

***Not only* too high cases**

(8)   a. Note that you can use this tool **not only** to upgrade Windows 7 or Windows 8.1 PCs, **but also** Windows 10 PCs. (COCA 2015 MAG PCWorld)

b. And that was **not only** for people he knew were allies and friends, **but also**   people who were in. (COCA 2011MAG NatlParks)

c. …usually in the mountain foothills that are the prime winter range **not only** for mule deer **but also** elk. (COCA 1997MAG FieldStream)

d. As a professional golfer, he became an international celebrity, known **not only** for his accomplishments on the golf course, **but** his extravagant lifestyle. (COCA 1997MAG GolfMag)

e. Yet somehow I managed **not only** to rope myself into a ski trip, **but** a ski trip   with my boss. (COCA 2015 FIC Bk:SlayedOnSlopes)

f. I was able **not only** to cross the street **but** make it down Fruit Street to Mass   General. (COCA 2015 FIC FantasySciFi)

Word order possibilities of *not only*

Not only too low cases

9)   a. It makes a huge difference <u>to</u> **not only** <u>the students</u> **but** <u>to us</u> as teachers   b...
...cause it took a weight off of us as to how we can supply our kids with the   things tha...
...they need to be successful in school. (COCA 2015 SPOK NBC)

      b. they are here to poke and prod and asphyxiate me with the obligation to   **n...**
...t only** understand, <u>to</u> **not only** <u>come to grips</u>, **but also** <u>to stand up there</u>   <u>and expla...</u>
...... and in this case, explain what? (COCA 2015 FIC WarLitArts)

      c. So definitely, my view <u>of</u> **not only** <u>my parents</u>, **but** <u>of myself</u>, has changed   fr...
...m, you know, having this son and my two daughters, too. (COCA 2014 SPOK NPR)

      d. It is reasonable to suggest that the higher transmission risk that is clearly   a...
...ociated with such horses is a consequence <u>of</u> **not only** <u>increased viral   load</u> **but**   **a...**
...o</u> <u>of the illness itself</u>. (COCA 2014 ACAD EmergingInfectious)

Word order possibilities of *not*

Not **too high cases** (Song 2012)

10) a. America's expectation lies **not** in <u>its successes</u> **but** <u>its failures</u>.

b. She seems to have a political heart aching **not** for <u>forgiveness</u> **but** <u>position</u>.

c. He removed a folded piece of paper from his pocket and rattled off a series of numbers that made clear how he wanted the election to be seen: **not** as <u>a squeaker</u> **but** <u>a rout</u>.

d. … and sat with him till one o'clock in the morning — **not** drinking <u>wine</u>, **but** <u>tea</u> and talking metaphysics and morality.

e. And you learn a good lesson in **not** to trust <u>anyone</u> **but** <u>yourself</u>.

f. I come **not** to bring <u>peace</u> **but** <u>a sword</u>.

g. … you have to **not** look at <u>age</u> **but** <u>the situation</u>.

Word order possibilities of *not*

Not too low cases

11)   a. …Andrea Dornbracht, the managing director of Dornbracht, a German faucet company, q reportedly declared that the future was <u>in</u> **not** <u>just selling products</u> **but** <u>in selling rituals</u>.

b. Recently, publishers have starting to wring revenue out of their traffic <u>by selling</u> **not** <u>ads</u>, **but** <u>by selling data</u> about the people trolling their sites.

c. This may sound like an odd notion to a publisher, but you can achieve the most success <u>by</u> **not** <u>selling your book</u>, **but** <u>by selling the benefits</u> potential customers will get from your book's content.

d. Your role in working with your prospect is <u>to sell</u> **not** <u>your product or service</u>, **but** <u>to sell yourself b</u> finding out what it is your prospect really wants.

e. An option is <u>to</u> **not** <u>sell the embargoed quantities to other foreign markets</u>, ie to C, **but** <u>to sell domestically</u>.

f. …his boss told him <u>to</u> **not** <u>come into the office for the next week</u> **but** <u>to come by the boss's house every night</u> so the two men could talk.

g. That's the persecution, a mentality that tells us <u>to buy</u> **not** <u>because we need</u>, **but** <u>to buy for the prestige of owning something bigger and more shiny than our neighbor's</u>.

Different word order possibilities of *not…but…* and *not only…but also…*

(12) Positions of *not* in the *not…but…* construction (Song 2012, p. 54)

...oe succeeded <**not**> by <? **not**> selling <***not**> books <***not**>, but by buying shoes.

(13) Positions of *not only* in the *not only…but also…* construction

<**not only** (with subj-aux inversion)> Joe succeeded <**not only**> by <**not only**> selling <**not only**> books <***not only**>, but also by selling shoes.

3. Negative Inversion

Not only triggers sub-aux inversion in the cla... use-initial position

14)   a. **Not only** was Stephens estranged from his English wife, he also had memorable confrontations wi... n several notable women. (COCA 2015 ACAD GeorgiaHisQ)

b. **Not only** are high rates of teacher turnover disruptive to students and the school, teachers with low organizational commitment often reduce their job performance before they quit (COCA 2014 A... D AmericanSecondary)

c. **Not only** does the bridge attract tourists and playful dog owners; it also intrigues scientists.(COCA 2013 MAG NaturalHist)

d. **Not only** does SanDisk's $50 digital music player have twice the storage of the 2 GB Apple iPod sh... ffle, it has a 1.1-inch color display for viewing album track titles and art work.(COCA   2013MAGSatEvenPos...

e. **Not only** were Django's mom and dad gone forever; the Django who lived in Beverly Hills was gon... too.(COCA 2012FICBk:LittleGirlGone)

f. **Not only** does QOOQ ($399) teach you how to cook, it is designed--unlike any other tablet--to be spill-and slip-proof so it can withstand anything (literally) you throw at it.(COCA 2012MAGUSAToday...

g. **Not only** did Bonnie's life shift, her school made Annual Yearly Progress for special education st... dents, which Bonnie's teacher attributes to her sequential focus on the WM list.(COCA 2012ACADReadingTe... her)

Not does not trigger sub-aux inversion

15)   a. *Not* did Joe succeed by selling books, *but* by buying shoes.

        b. *Not* was Joe stupid, *but* lazy.

Not only inversion as a subtype of only inversion?

16) *Only* inversion

a*. Only his mother* will he obey.

b. *Only on Sundays* do they eat with their children.

only by itself cannot float to the clause-initial position.

17) a. **Only* did Joe succeed by selling books.

b. **Only* was Joe stupid.

Clause-initial *not only* and sub-aux inversion is an idiosyncratic property of the *not only… but also…* construction.

4. An HPSG Analysis

An HPSG Analysis

4.1 A new subtype of the *coord-ph* : *correlative-coord-ph*

4.2 Linearization of *not only*
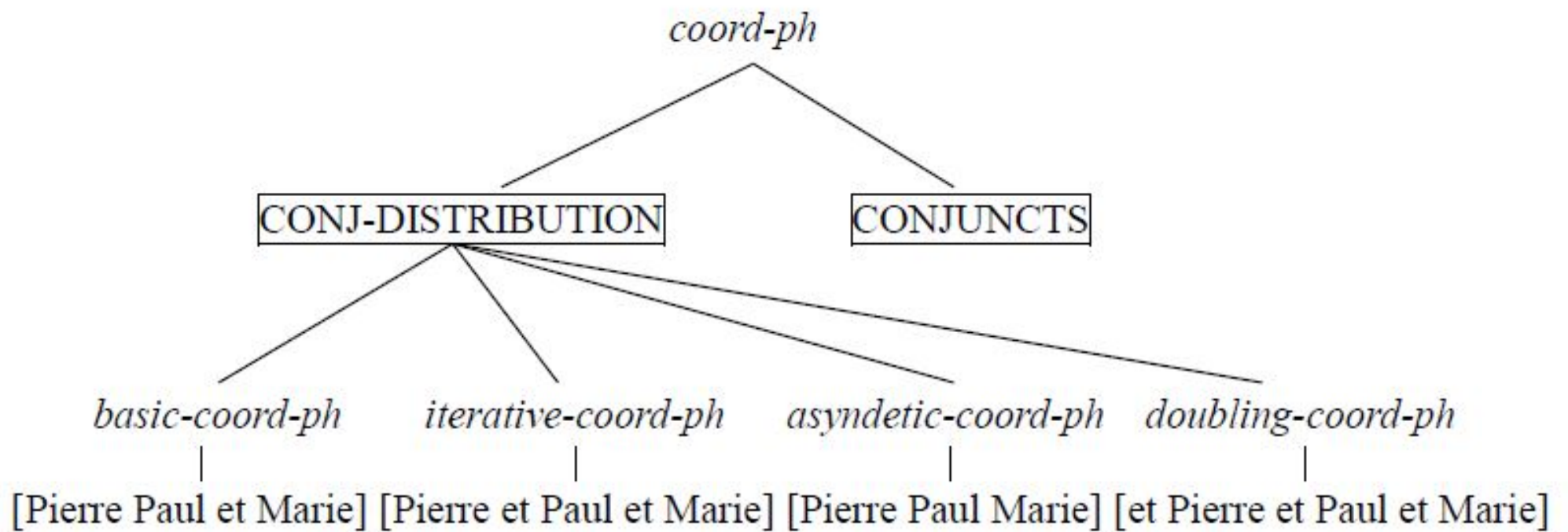
4.3 Negative Inversion

4.1 A new subtype of the *coord-ph* : *correlative-coord-ph*

- **Mouret (2004)**: French conjunction doubling coordinations (*et* 'and'…*et* 'and'…, *soit* 'either'… *soit* 'or')

(18) Luc   connaît et   Max   et   Léa.
      Luc   knows and   Max   and   Léa
      'Luc knows not only Max but also Léa.'

Mouret (2004)

Mouret (2004)

20) *coord-ph* → *[*■*CONJ &null*
@HEAD &[1]
@VALENCE &[2]
@SLASH &[3]
@NON−HD−DTRS&<[■HEAD &[1]@VALENCE&[2]@SLASH
&[3]],…,[■HEAD &[1]@VALENCE&[2]@SLASH &[3]]>]

21) *doubling-coord-ph* → *[*■*DOUBLING &[1]et*∨ *ou*∨ *ni*2∨ *soit*
@NON−HD−DTRS&<[CONJ [1]],…,[CONJ [1]]>]

4.1 A new subtype of the *coord-ph* : *correlative-coord-ph*

A new subtype for "edge coordinations":

22) *correlative-coord-ph* →

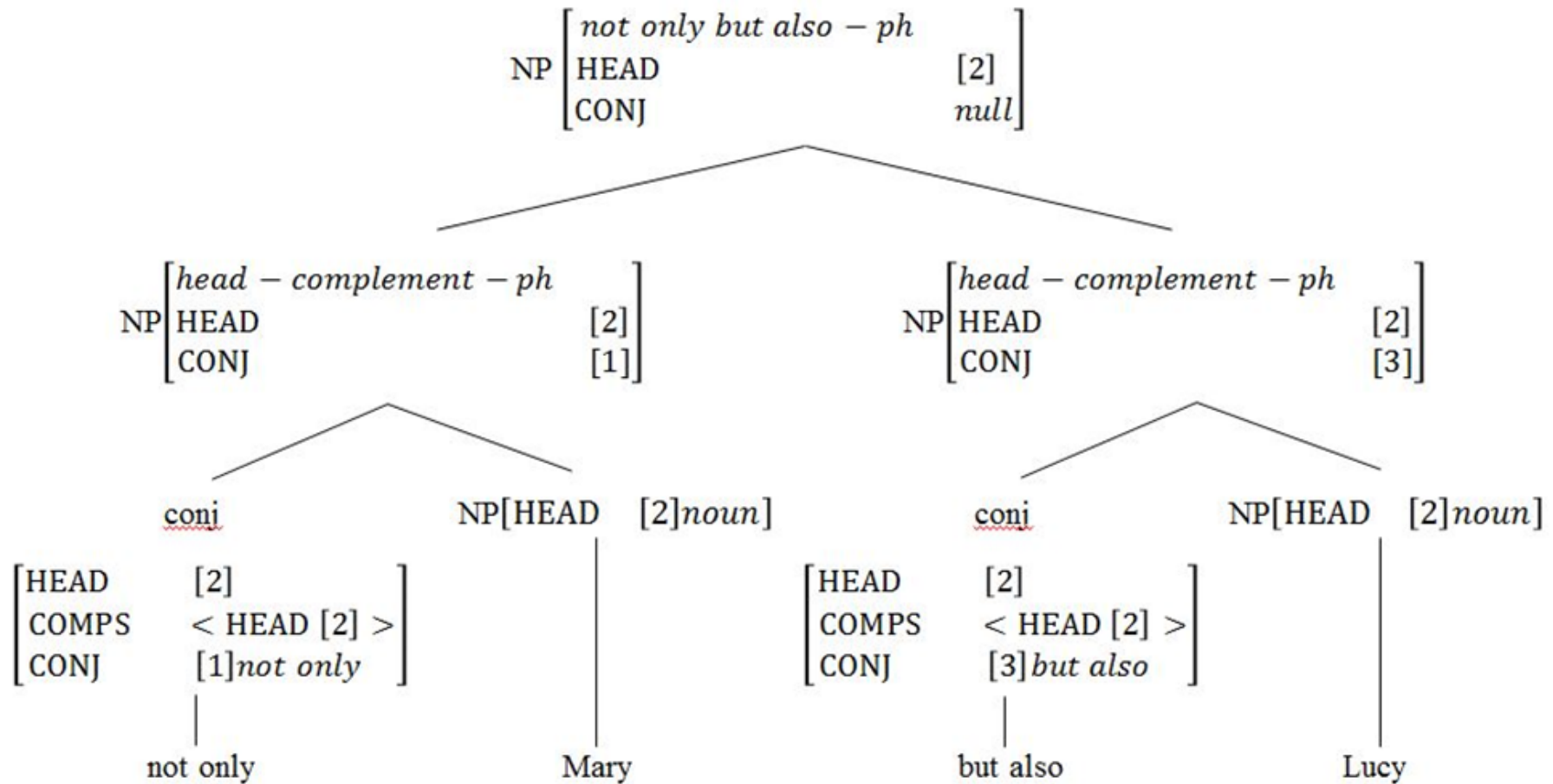[NON-HD-DTRS / *nelist*([CONJ [1]]) ⊕ [CONJ [2]]]

Not only but also construction as a subtype of *correlative-coord-ph*

23) *not only but also-ph* →

[NON-HD-DTRS *nelist*([CONJ *not only*]) ⊕ ([CONJ *but also*∨*but*∨*also*])]

An example

(24)

$$
NP \begin{bmatrix} not\ only\ but\ also - ph \\ HEAD \quad [2] \\ CONJ \quad null \end{bmatrix}
$$

$$
NP \begin{bmatrix} head - complement - ph \\ HEAD \quad [2] \\ CONJ \quad [1] \end{bmatrix}
$$

$$
NP \begin{bmatrix} head - complement - ph \\ HEAD \quad [2] \\ CONJ \quad [3] \end{bmatrix}
$$

conj

NP[HEAD [2]noun]

conj

NP[HEAD [2]noun]

$$
\begin{bmatrix} HEAD \quad [2] \\ COMPS \quad < HEAD\ [2] > \\ CONJ \quad [1]not\ only \end{bmatrix}
$$

$$
\begin{bmatrix} HEAD \quad [2] \\ COMPS \quad < HEAD\ [2] > \\ CONJ \quad [3]but\ also \end{bmatrix}
$$

not only

Mary

but also

Lucy

4.2 Linearization of *not only*
4.2.1 *Not only* too low cases

Extension of Hofmeister's (2010) linearization analysis of *either* in disjunction structures

Word order domain (Reape 1990, 1996; Kathol 2000)

)   A licensing construction that enables shuffling of *not only* within the conjunct

)   A linear precedence (LP) rule that orders *not only* before the focused element

)   Coordinate ellipsis (for *not only too high* cases)

Hofmeister (2010)

(28) <Either> Thomas <either> will <either> write <either> a mystery or he'll write a romance.

(29) <Either> You'll <either> need to <either> bring <either> a passport or a birth certificate.

(30) <Either> Congress <either> will <either> pass the legislation or lose our confidence.

(31) <Either> You <either> can <either> have <either> tea <either> from <either> China or from Tibet.

Word order domain approach

DOM (domain) feature

(25) Concatenation construction

$$concat - cx \Rightarrow \begin{bmatrix} \text{MOTHER} & [\text{DOM } \delta1 \oplus \delta2] \\ \text{DTRS} & \langle [\text{DOM } \delta1], [\text{DOM } \delta2] \rangle \end{bmatrix}$$

(26) *Shuffle* relation

$$< a,b > \circ < c,d > \ \epsilon \ \left\{ \begin{matrix} < a,b,c,d >, & < a,c,b,d >, & < a,c,d,b > \\ < c,a,b,d >, & < c,d,a,b >, & < c,a,b,d > \end{matrix} \right\}$$

(27) Liberating construction

$$liberating - cx \Rightarrow \begin{bmatrix} \text{MOTHER} & [\text{DOM } \delta1 \circ \ ... \ \circ \delta i] \\ \text{DTRS} & \langle [\text{DOM } \delta1], ... , [\text{DOM } \delta i] \rangle \end{bmatrix}$$

LP (Linear Precedence) rules

Shuffling of *not only*

(28) *not only-ph* →

$[■MOTHER&[■CONJ \ \&not \ only \qquad\qquad @HEAD\&[2]$

$@DOM \ \&<[DOM \ δ1○δ2> \ ] \qquad\qquad @DTRS$

$\&<[■PHON \quad \&<not \ only> \quad @CONJ \qquad \&not \ only \qquad @SYN|$

$VAL\&COMPS<[1]>@HEAD \quad \&[2] \qquad\qquad @DOM \qquad \&δ2$

$, [1][■HEAD\&[2]@DOM \ \&δ1 \ ] \ ]$

LP (Linear precedence) rule

29) $[\blacksquare\text{PHON}\&<not\ only>@\text{CONJ}\&not\ only\qquad]< [\blacksquare\text{INFO}$
$-\text{STRUCT}\&[\text{FOC }\delta ne-list]\ ]$

30) *by selling books not only

An example

31)
$$\begin{bmatrix} \text{DOM} & < [< \ [\text{not only}] \ > \circ < [\text{by}], [\text{selling}], [\text{books}] \ >] \ > \\ \text{INFO} - \text{STRUCT}|\text{FOCUS} & < [1] > \end{bmatrix}$$

$$\begin{bmatrix} \text{PHON} & < not\ only > \\ \text{DOM} & < [\text{not only}] > \\ \text{SYN} & conj \end{bmatrix} \quad \begin{bmatrix} \text{PHON} & < by, selling, books > \\ \text{DOM} & < [\text{by}], [\text{selling}], [\text{books}] > \\ \text{INFO} - \text{STRUCT}|\text{FOCUS} & < [1][\text{books}] > \end{bmatrix}$$

32) <**not only**> by <**not only**> selling <**not only**> books <*****not only**>

4.2.2 *Not only* too high cases

Coordinate ellipsis in the second conjunct (Hofmeister 2010 for *either*)

33) You'll either [need to bring a passport] or [~~need to bring~~ a birth certificate].

34) Either [Congress will pass the legislation] or [~~Congress will~~ lose our confidence].

Not only...but also...

35) a. You can use this tool not only [to upgrade Windows 7 or Windows 8.1 PCs], but also [~~to upgrade~~ Windows 10 PCs].

b. I was able not only [to cross the street] but [~~to~~ make it down Fruit Street to Mass General].
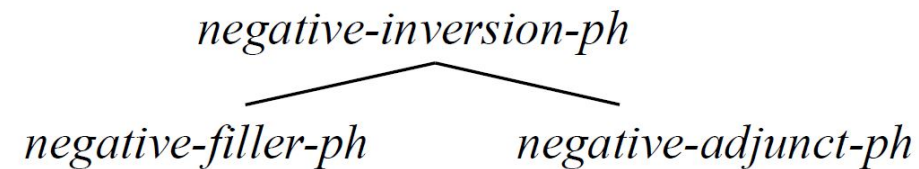
c. He is known not only [for his accomplishments on the golf course], but [~~for~~ his extravagant lifestyle.
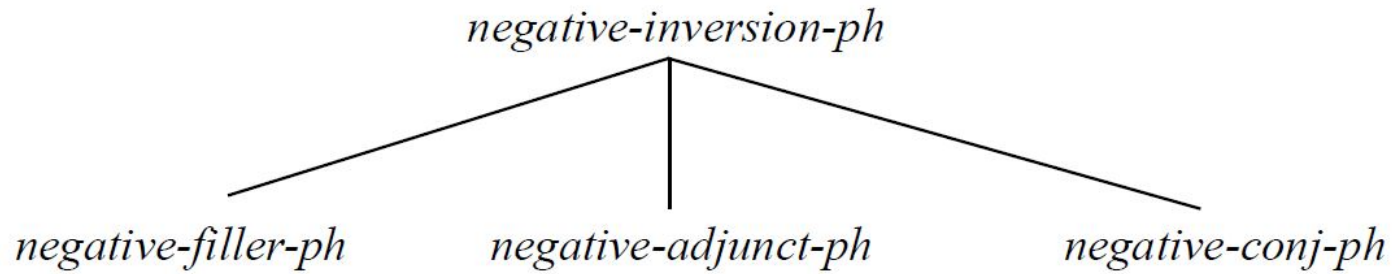
4.3 Negative Inversion

(36) *negative-inversion-ph* (Maekawa 2012) →

$$\begin{bmatrix} \blacksquare SUBJ & \& <> \\ @HD-DTR & \& < [\blacksquare word \& \begin{bmatrix} @INV & \& + \\ @AUX & \& + \\ @COMPS \& < [2]VP[SLASH\ \{([3]),...\}]> \end{bmatrix}]> \\ @SUBJ & \& < [1]NP> & @NON-HD \\ -DTRS \& < [NEG+],[1],[2]> \end{bmatrix} \quad @SLASH \quad \& \{([3][NEG-])\}$$

(37) Constructional hierarchy of the *negative-inversion-ph* (Maekawa 2012)

negative-inversion-ph

negative-filler-ph　　　*negative-adjunct-ph*

88) Constructional hierarchy of the negative-inversion-ph (modified)

negative-inversion-ph
— negative-filler-ph
— negative-adjunct-ph
— negative-conj-ph

89) *negative-inversion-ph* (modified) →

■SUBJ   &< >
@SLASH   &{([3][NEG−])}
@HD−DTR   &[■HEAD&[■INV &+@AUX &+]
@VAL   &/[■SUBJ   &<[1]NP>
@COMPS&<[2]VP[SLASH {([3]),...}]>]]@NON−HD−DTRS&/
<[NEG+],[1],[2]>   ]
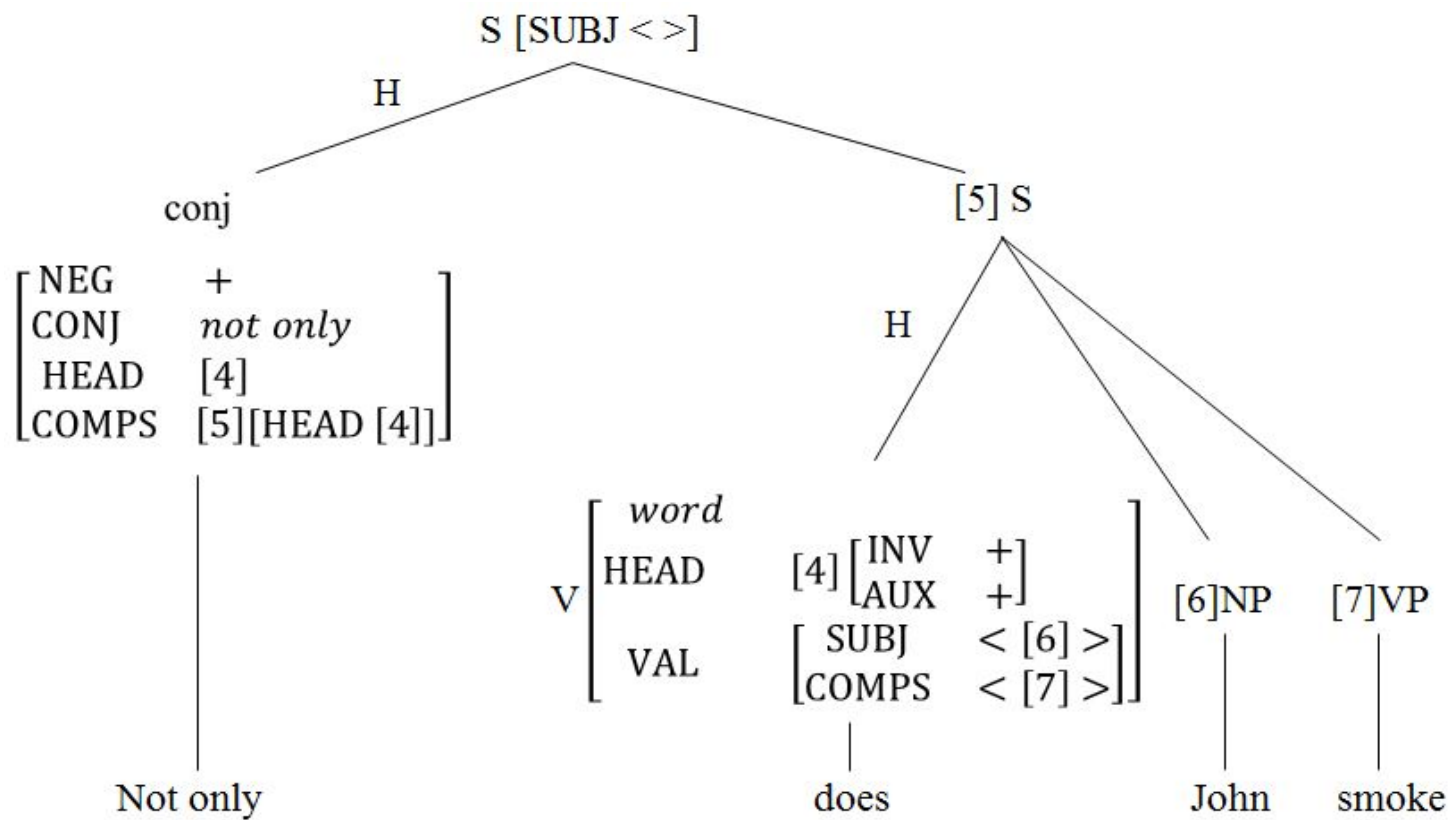
Constraints on *negative-conj-ph*

40) *negative-conj-ph* →

[■HD−DTR   &conj[■NEG   &+   @CONJ   &¬ *null*   @HEAD &[4]
@COMPS&[5]][HEAD [4]]]   @NON−HD−DTRS&[5]S[■HI
−DTR   &[■*word*& @INV   &+   @AUX   &+
@SUBJ   &<[6]NP>   @COMPS&<[7]VP[SLASH {([3]),…}]>]@NON−HD
−DTRS&<[6],[7]>   ]]

An example

S [SUBJ < >]

H

conj

$$\begin{bmatrix} \text{NEG} & + \\ \text{CONJ} & \textit{not only} \\ \text{HEAD} & [4] \\ \text{COMPS} & [5][\text{HEAD } [4]] \end{bmatrix}$$

[5] S

H

$$V \begin{bmatrix} \textit{word} \\ \text{HEAD} & [4]\begin{bmatrix} \text{INV} & + \\ \text{AUX} & + \end{bmatrix} \\ \text{VAL} & \begin{bmatrix} \text{SUBJ} & < [6] > \\ \text{COMPS} & < [7] > \end{bmatrix} \end{bmatrix}$$

[6]NP   [7]VP

Not only   does   John   smoke

Take-home messages

Not only...but also... and *not...but...*

...Not quite as similar as they may seem!

Not only triggers sub-aux inversion in the clause-initial position, which sets it apart from *not* or *only*.

Various word order possibilities of *not only* can be simply explained using the word order domain approach (and coordinate ellipsis).

Future work: semantics!

Thank you!

sarahhl@usc.edu

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