

Abstract

This paper investigates the syntax of the English *not only ... but also ...* construction, focusing on the linearization possibilities of *not only*. Based on novel corpus data, I argue that the *not only ... but also ...* construction exhibits different properties from the *not ... but ...* construction or the adverbial *only*. I propose that a linearization-based account, along with coordinate ellipsis, can explain the various linearization possibilities of *not only*. I also propose that the construction as a whole is a subtype of the *correlative-coord-ph*, which is a novel subtype of the *coord-ph*. Finally, I argue that subject-auxiliary inversion triggered by the clause-initial *not only* is a new subtype of the *negative-inversion-ph*.

1 Introduction

The *not only ... but also ...* construction in (1) consists of two “correlative” elements, first of which is introduced by *not only*, and the latter by *but also*.

- (1) John invited *not only* Mary, *but also* Lucy.

This construction exhibits many interesting properties, in that it is a rather special type of coordination, and also in the distribution of *not only*. Moreover, *not only* can trigger subject-auxiliary inversion in the clause-initial position, as in the bold-faced part in (2).

- (2) *Not only* **did John** invite Mary, *but also* Lucy.

Surprisingly, however, there are not many syntactic accounts of this construction.

This paper examines the abovementioned special properties of the *not only ... but also ...* construction and argues that this construction is different from the apparently very similar *not ... but ...* construction. In section 2, I outline the basic data that previous studies discuss, focusing on the fact that they subsume the *not only ... but also ...* construction and the *not ... but ...* construction under a single construction. In sections 3 and 4, I provide novel data from corpus to show that the *not only ... but also ...* construction and the *not ... but ...* construction are indeed different. In section 3, I show that the floating positions of *not only* in the *not only ... but also ...* construction are freer than those of *not* in the *not ... but ...* construction. In section 4, I present subject-auxiliary inversion facts to show that the *not only ... but also ...* construction is clearly distinct from either the *not ... but ...* construction or from *only*-inversion.

In section 5, I provide an adequate analysis of such facts within the framework

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of Head-Phrase Structure Grammar. I propose that the construction as a whole is a subtype of the *correlative-coord-ph*, which is a novel subtype of the *coord-ph*. The free linearization possibilities of *not only* are explained via 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, and coordinate ellipsis. Finally, subject-auxiliary inversion triggered by the clause-initial *not only* is analyzed as a subtype of the *negative-inversion-ph*. Here, I propose a novel subtype: *negative-conjunction-ph*.

2 Previous analyses: *not only ... but also ...* and *not ... but ...*

There are not many studies on the *not only ... but also ...* construction. Bianchi and Zamparelli (2004) dub (pseudo-) coordinations of two correlates “edge coordinations” and discuss English and Italian data such as *non ... ma ... /not ... but ...* in (3), *non solo ... ma anche ... /not only ... but also ...* in (4), *prima ... poi ... /first ... then ...* in (5), and *ora ... ora ...* in (6).

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

They analyze edge coordinations as in (7), with ellipsis in the second conjunct.

- (7) 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.

In showing that edge coordinations show four different word order patterns, Bianchi and Zamparelli (2004) and Gallego (2005) discuss the following set of data. In the adjacent orders in (8), the whole coordinate structure forms a continuous string, either in the clause-final (8a) or clause-initial (8b) position. In the non-adjacent orders in (9), the coordination forms a discontinuous string. In (9a), *not* and the first correlate are not adjacent to each other, and in (9b), the first and the second correlate are discontinuous.

- (8) 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)
- (9) Non-adjacent orders
 - a. I didn't invite *(only) Mary, but (also) Lucy*. (non-adjacent final)
 - b. *Not (only) Mary* did I invite, *but (also) Lucy*. (non-adjacent initial)

In these studies, *only* and *also* are treated as optional adverbials, and thus, the *not only ... but also ...* construction is subsumed with the *not ... but ...* construction. They actually refer to it as the *not (only) ... but (also) ...* construction. However, these studies are limited in that they do not discuss the full range of data. For example, they only discuss data in which the correlates are DPs (*not only* DP *but also* DP). In the following sections, I present data not discussed in previous studies (Bianchi & Zamparelli 2004; Gallego 2005) such as various positional (“floating”) possibilities of *not only*, mainly to argue that the *not only ... but also ...* construction and the *not ... but ...* construction are indeed different.

3 Positional Possibilities of *not only*

This section discusses the various word order possibilities in the *not only ... but also ...* construction, with regards to the various positional possibilities of *not only*. *Not only* can appear in positions not directly adjacent to the focused constituent. For example, it can appear at a position higher than its “original” position, as in (10). Sentences in (10) are from the Corpus of Contemporary American English. In each example, the correlates are underlined.

- (10) *Not only* too high cases
 - 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 2011 MAG NatlParks)
 - c. ... usually in the mountain foothills that are the prime winter range **not only** for mule deer **but also** elk. (COCA 1997 MAG 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 1997 MAG 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)

Not only can also appear at a position lower than its “original” position, as in (11).

(11) *Not only* too low cases

- a. It makes a huge difference to **not only** the students **but** to us as teachers because it took a weight off of us as to how we can supply our kids with the things that 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 not only understand, to **not only** come to grips, **but also** to stand up there and explain... and in this case, explain what? (COCA 2015 FIC WarLitArts)
- c. So definitely, my view of **not only** my parents, **but** of myself, has changed from, 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 associated with such horses is a consequence of **not only** increased viral load **but also** of the illness itself. (COCA 2014 ACAD EmergingInfectious)

Such “floating” possibilities of *not only* are strongly reminiscent of those of *not* in the *not ... but ...* construction. Examples in (12)-(13) are from Song (2012).

(12) *Not* too high cases

- a. America’s expectation lies **not** in its successes **but** its failures.
- b. She seems to have a political heart aching **not** for forgiveness **but** position.
- 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 a squeaker **but** a rout.
- d. ... and sat with him till one o’clock in the morning — **not** drinking wine, **but** tea and talking metaphysics and morality.
- e. And you learn a good lesson in **not** to trust anyone **but** yourself.
- f. I come **not** to bring peace **but** a sword.
- g. ... you have to **not** look at age **but** the situation.

(13) *Not* too low cases

- a. ...Andrea Dornbracht, the managing director of Dornbracht, a German faucet company, reportedly declared that the future was in **not** just selling products **but** in selling rituals.
- b. Recently, publishers have starting to wring revenue out of their traffic by selling **not** ads, **but** by selling data about the people trolling their sites.

- c. This may sound like an odd notion to a publisher, but you can achieve the most success by **not** selling your book, **but** by selling the benefits potential customers will get from your book's content.
- d. Your role in working with your prospect is to sell **not** your product or service, **but** to sell yourself by finding out what it is your prospect really wants.
- e. An option is to **not** sell the embargoed quantities to other foreign markets, i.e. to C, **but** to sell domestically.
- f. ...his boss told him to **not** come into the office for the next week **but** to come by the boss's house every night so the two men could talk.
- g. That's the persecution, a mentality that tells us to buy **not** because we need, **but** to buy for the prestige of owning something bigger and more shiny than our neighbor's.

On a closer examination, however, the floating positions of *not only* and *not* are actually different. (14) shows possible positions of *not* in the *not ... but ...* construction, and (15) shows possible positions of *not only* in the *not only ... but also ...* construction.

- (14) Positions of *not* in the *not ... but ...* construction
Joe succeeded <**not**> by <?**not**> selling <***not**> books <***not**>, but by buying shoes. (Song 2012, p. 54)
- (15) 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.

The contrast between (14) and (15) shows that *not* is more restricted in its positional possibilities than *not only*. The shaded positions in (15) are ungrammatical in (14). This is the main reason why the *not only ... but also ...* construction and the *not ... but ...* construction are different. Actually, the positions of *not only* are rather similar to either in disjunction constructions, which exhibits rather free linear possibilities (Hofmeister 2010), as in (16)-(19).

- (16) <Either> Thomas <either> will <either> write <either> a mystery or he'll write a romance.
- (17) <Either> You'll <either> need to <either> bring <either> a passport or a birth certificate.
- (18) <Either> Congress <either> will <either> pass the legislation or lose our confidence.
- (19) <Either> You <either> can <either> have <either> tea <either> from <either> China or from Tibet.

Particularly interesting is that unlike in the *not ... but ...* construction, *not only* (like *either*) can appear at the clause-initial position, in which case subject-auxiliary inversion is obligatorily triggered. Such inversion phenomena will be further described in the following section.

4 Negative Inversion

When *not only* appears at the clause-initial position, subject-auxiliary inversion is obligatorily triggered, as in (20) and (21). Sentences in (21) are from corpus.

- (20) **Not only** did Joe succeed by selling books, but by buying books.
- (21) a. **Not only** was Stephens estranged from his English wife, he also had memorable confrontations with 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 ACAD 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 shuffle, it has a 1.1-inch color display for viewing album track titles and art work. (COCA 2013 MAG SatEvenPost)
- e. **Not only** were Django's mom and dad gone forever; the Django who lived in Beverly Hills was gone too. (COCA 2012 FIC Bk:LittleGirl-Gone)
- 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 2012 MAG USAToday)
- g. **Not only** did Bonnie's life shift, her school made Annual Yearly Progress for special education students, which Bonnie's teacher attributes to her sequential focus on the WM list. (COCA 2012 ACAD ReadingTeacher)

Both 1) clause-initial position of the conjunction and 2) subject-auxiliary inversion are clearly impossible in the *not ... but ...* construction, as can be seen from the ungrammaticality of the sentences in (22).

- (22) a. ***Not** did Joe succeed by selling books, but by buying shoes.
- b. ***Not** was Joe stupid, but lazy.

Note, also, that (23) should be clearly distinguished from the “floating” cases of *not only* or *not* because in (23), the whole constituent (*not (only)* along with the focused constituent, e.g. *not (only) in its success*) is fronted.

- (23) [*Not (only) in its success*] does America’s expectation lie but its failures.

One may intuitively think that the subject-auxiliary inversion triggered by clause-initial *not only* simply follows from properties of *only*-inversion (Huddleston & Pullum 2002¹). Although *only*-inversion has not been discussed much in the literature, many scholars (e.g. Haegeman 1995; Maekawa 2012) analyze *only* as a weak negator, and therefore *only*-inversion in (24) as a negative inversion phenomenon.

- (24) a. *Only* his mother will he obey.
b. *Only* on Sundays do they eat with their children.

However, the ungrammaticality of the sentences in (25) shows that *only*-inversion and *not only*-inversion cannot be treated as the same phenomena because *only* by itself cannot float to the clause-initial position.

- (25) a. **Only* did Joe succeed by selling books.
b. **Only* was Joe stupid.

Therefore, I propose that the “floating very high” possibility of *not only* is an idiosyncratic property of the *not only ... but also ...* construction, which is exhibited neither in the *not ... but ...* construction nor with *only*.

5 Analysis

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

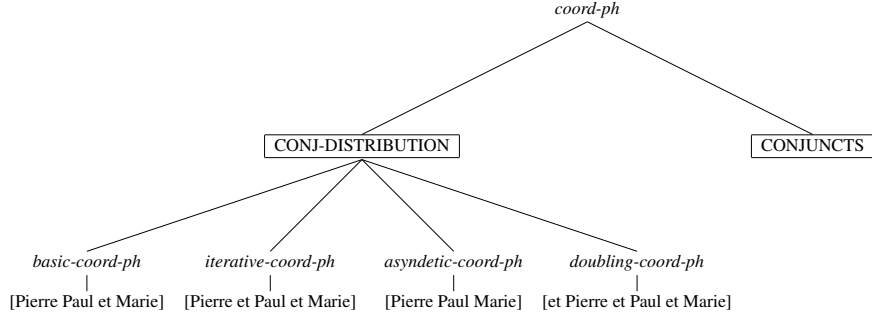
I analyze the whole *not only ... but also ...* construction as a coordination structure, in which each conjunct is marked by a conjunction, similar to Mouret’s (2004) analysis of French conjunction doubling (*et* ‘and’ ... *et* ‘and’ ..., *soit* ‘either’ ... *soit* ‘or’). First, the constraints imposed on *coord-ph* are shown in (26).

- (26) *coord-ph* →
- | | | | | | | | | | | | | | | |
|-------------|--|------|-----|---------|-----|-------|-----|------|-----|---------|-----|-------|-----|--|
| CONJ | <i>null</i> | | | | | | | | | | | | | |
| HEAD | [1] | | | | | | | | | | | | | |
| VALENCE | [2] | | | | | | | | | | | | | |
| SLASH | [3] | | | | | | | | | | | | | |
| NON-HD-DTRS | \langle <table style="display: inline-table; vertical-align: middle;"> <tr><td style="border-left: 1px solid black; padding-left: 5px;">HEAD</td><td style="padding-left: 5px;">[1]</td></tr> <tr><td style="border-left: 1px solid black; padding-left: 5px;">VALENCE</td><td style="padding-left: 5px;">[2]</td></tr> <tr><td style="border-left: 1px solid black; padding-left: 5px;">SLASH</td><td style="padding-left: 5px;">[3]</td></tr> </table> , ..., <table style="display: inline-table; vertical-align: middle;"> <tr><td style="border-left: 1px solid black; padding-left: 5px;">HEAD</td><td style="padding-left: 5px;">[1]</td></tr> <tr><td style="border-left: 1px solid black; padding-left: 5px;">VALENCE</td><td style="padding-left: 5px;">[2]</td></tr> <tr><td style="border-left: 1px solid black; padding-left: 5px;">SLASH</td><td style="padding-left: 5px;">[3]</td></tr> </table> \rangle | HEAD | [1] | VALENCE | [2] | SLASH | [3] | HEAD | [1] | VALENCE | [2] | SLASH | [3] | |
| HEAD | [1] | | | | | | | | | | | | | |
| VALENCE | [2] | | | | | | | | | | | | | |
| SLASH | [3] | | | | | | | | | | | | | |
| HEAD | [1] | | | | | | | | | | | | | |
| VALENCE | [2] | | | | | | | | | | | | | |
| SLASH | [3] | | | | | | | | | | | | | |

¹Huddleston and Pullum (2002) note that “the location of *not only* simply reflects the range of positions available to focusing adverbs like *only*. (p. 1314)”

Mouret (2004) cross-classifies (French) coordinations according to the distribution of conjunctions as in (27).

(27) Mouret’s (2004) cross-classification of (French) coordinations



Constraints imposed on each of these subtypes are in (28).

- (28) a. *basic-coord-ph* \rightarrow
 $\left[\text{NON-HD-DTRS } \text{nelist}([\text{CONJ } \boxed{1} \text{null}]) \oplus \langle [\text{CONJ } \text{et} \vee \text{ou}] \rangle \right]$
- b. *iterative-coord-ph* \rightarrow
 $\left[\text{NON-HD-DTRS } \langle [\text{CONJ } \text{null}] \rangle \oplus \text{nelist}([\text{CONJ } \boxed{1} \text{et} \vee \text{ou} \vee \text{ni}_1]) \right]$
- c. *asyndetic-coord-ph* \rightarrow
 $\left[\begin{array}{l} \text{CONTENT} \quad \left[\begin{array}{l} \text{et-reln} \\ \text{ARGS} \quad \{i, \dots, n\} \end{array} \right] \\ \text{NON-HD-DTRS} \quad \left\langle \left[\begin{array}{l} \text{CONJ} \quad \boxed{1} \text{null} \\ \text{INDEX} \quad i \end{array} \right], \dots, \left[\begin{array}{l} \text{CONJ} \quad \boxed{1} \text{null} \\ \text{INDEX} \quad n \end{array} \right] \right\rangle \end{array} \right]$
- d. *doubling-coord-ph* \rightarrow
 $\left[\begin{array}{l} \text{DOUBLING} \quad \boxed{1} \text{et} \vee \text{ou} \vee \text{ni}_2 \vee \text{soit} \\ \text{NON-HD-DTRS} \quad \langle [\text{CONJ } \boxed{1}], \dots, [\text{CONJ } \boxed{1}] \rangle \end{array} \right]$

I suggest that, at least for English, we need a new subtype of the *coord-ph* to account for correlative coordination structures such as *not only ... but also ...*: *correlative-coord-ph*. I assume that other types of “edge coordinations” such as *first ... then ...* can be explained via this phrase type as well. In (29) are constraints put on this subtype.

- (29) *correlative-coord-ph* \rightarrow
 $\left[\text{NON-HD-DTRS } \text{nelist}([\text{CONJ } \boxed{1}]) \oplus [\text{CONJ } \boxed{2}] \right]$

I propose that *not only but also-ph* ((30)) is a subtype of the *correlative-coord-ph*.

- (30) *not only but also-ph* \rightarrow
 $\left[\text{NON-HD-DTRS } \text{nelist}([\text{CONJ } \text{not only}]) \oplus \langle [\text{CONJ } \text{but also} \vee \text{but} \vee \text{also}] \rangle \right]$

The above constraint in (30) can adequately account for the following facts. First, conjuncts headed by *not only* can appear multiple times, as in (31).

- (31) they are here to poke and prod and asphyxiate me with the obligation to **not only** understand, to **not only** come to grips, but also to stand up there and explain... and in this case, explain what? (COCA 2015 FIC WarLitArts)

Also, the second conjunct is optional, as can be seen in (32).

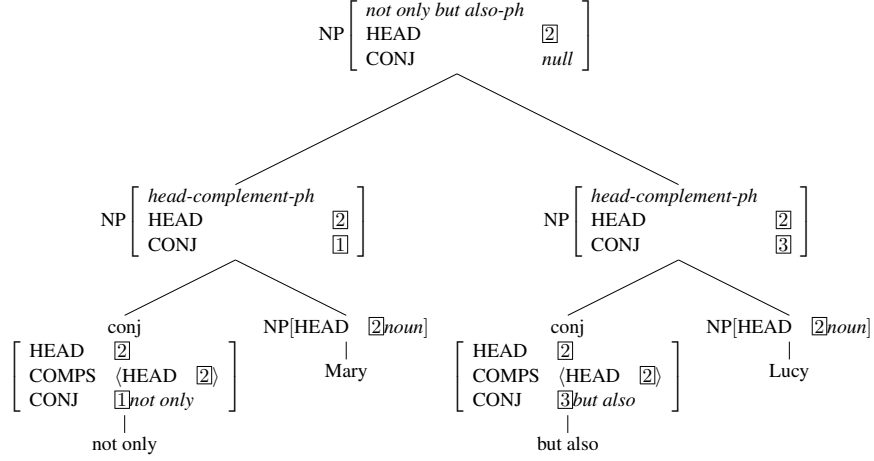
- (32) a. There he kept his vegetable garden huge, but **not only** for the purpose of feeding everyone living at Monticello and his many visitors. Rather it was an experimental garden, with 330 cultivars representing 99 species of vegetables and herbs, tried out over his 50-some years of gardening and always with the goal of finding the few best among each species. (COCA 2015 MAG Horticulture)
- b. What the new study shows is how evenly numbers are dropping for fish species across the spectrum, for the whole marine ecosystem, and **not only** for a handful of commercially fished species. (COCA 2015 NEWS OrangeCR)

Moreover, the second conjunct's CONJ value can either be *but also*, *but*, or *also*. In (33), the second conjunct is headed by *but*, and in (34), by *also*.

- (33) a. Driver's Ed programs are enforced **not only** to educate, **but** to give supervised experience to teens so that they have a chance of getting to school and back without getting hit—or hitting something or someone. (COCA 2015 MAG USAToday)
- b. This article examines qualitative evaluations of three works of young adult literature that are **not only** textually complex as defined by authors of the CCSS, **but** appropriate and engaging for adolescent identity and development. (COCA 2015 ACAD JAdolAdultLiteracy)
- (34) Play is **not only** for children, it is **also** important for adults. (COCA 2014 ACAD StudiesInEducation)

In (35), the structure of *not only Mary but also Lucy* is shown.

(35) *not only Mary but also Lucy*



5.2 Linearization of *not only*

In sections 3 and 4, the various “floating” positions of *not only* in the *not only ... but also ...* construction were shown. In this section, I explain these facts via 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, and coordinate ellipsis.

This analysis is an extension of Hofmeister’s (2010) linearization analysis of *either* in disjunction structures. In section 3, I mentioned that the distributional possibilities of *not only* are very much like those of *either* in *either ... or ...* constructions.

5.2.1 *Not only* floating too low

Hofmeister accounts for “floating low” cases of *either* through a licensing construction that allows shuffling of *either* within the first disjunct. I extend this analysis to *not only* phrases as well. In (36) are the constraints on the *not only-ph*.

(36) *not-only-ph* →

$$\left[\begin{array}{l} \text{MOTHER} \\ \text{DTRS} \end{array} \left\langle \begin{array}{l} \left[\begin{array}{ll} \text{CONJ} & \text{not only} \\ \text{HEAD} & [2] \\ \text{DOM} & \langle [\text{DOM } \delta_1 \circ \delta_2] \rangle \end{array} \right] \\ \left[\begin{array}{ll} \text{PHON} & \langle \text{not only} \rangle \\ \text{CONJ} & \text{not only} \\ \text{SYN|VAL} & \text{COMPS} \langle [1] \rangle \\ \text{HEAD} & [2] \\ \text{DOM} & \delta_2 \end{array} \right] \end{array} \right\rangle, [1] \left[\begin{array}{ll} \text{HEAD} & [2] \\ \text{DOM} & \delta_1 \end{array} \right] \right\rangle$$

The following linear precedence (LP) rule in (37) ensures that *not only* always precedes the focused element in the left conjunct, thereby blocking ungrammatical

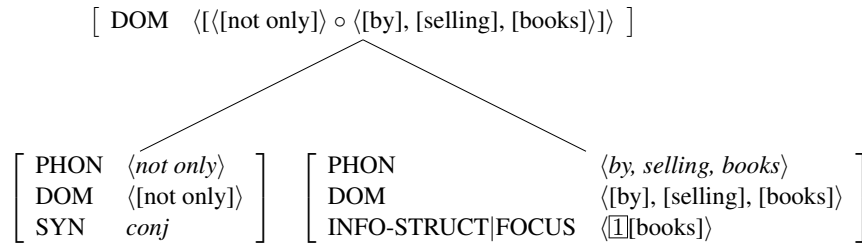
phrases like (38).

$$(37) \begin{bmatrix} \text{PHON} & \langle [\text{not only}] \rangle \\ \text{CONJ} & \text{not only} \end{bmatrix} < [\text{INFO-STRUCT} \quad [\text{FOC} \quad \delta \text{ne-list}]]$$

(38) *by selling books not only

(39) shows how the licensing construction for combining *not only* with its complement and the linear precedence rule work.

(39) *Not only* floating too low



The possible linear orders resulting from (39) and the LP rule (37) are as desired ((40)).

(40) **<not only>** by **<not only>** selling **<not only>** books **<*not only>**

5.2.2 *Not only* floating too high

Hofmeister assumes that *either* always attaches at the left edge of the disjunction. He argues that in apparent *either* “too high” cases, coordinate ellipsis occurs in the second disjunct. When coordinates combine, shared material at the beginning of non-initial coordinates can be elided, as in (41) and (42).

(41) You’ll either [need to bring a passport] or [~~need to bring~~ a birth certificate].

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

I assume the same for the *not only* ... *but also* ... construction. *Not only* always attaches at the left edge of the second conjunct, without actual “floating”. Shared material at the non-initial conjunct(s) may undergo deletion, as in (43), resulting in what seems like upward floating of *not only* (which is, in fact, only an illusion).

- (43) 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].

Note that such an ellipsis analysis is also in line with the minimalist analyses of Bianchi & Zamparelli (2004) and of Gallego (2005), although the details differ.

5.3 Negative Inversion

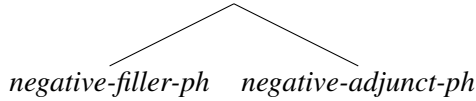
I suggest that the subject-auxiliary inversion that occurs when *not only* floats to the clause-initial position is a negative inversion phenomenon. Maekawa (2012) provides a detailed analysis of negative inversions within the HPSG framework. In (44) are constraints imposed on Maekawa’s (2012) *negative-inversion-ph*.

$$(44) \left[\begin{array}{ll} \text{SUBJ} & \langle \rangle \\ \text{SLASH} & \{(\textcircled{3}[\text{NEG} \text{ -- }])\} \\ \text{HD-DTR} & \left\langle \begin{array}{ll} \text{word} & \\ \text{INV} & + \\ \text{AUX} & + \\ \text{SUBJ} & \langle \textcircled{1}\text{NP} \rangle \\ \text{COMPS} & \langle \textcircled{2}\text{VP}[\text{SLASH } \{(\textcircled{3}), \dots\}] \rangle \end{array} \right\rangle \\ \text{NON-HD-DTRS} & \langle [\text{NEG } +], \textcircled{1}, \textcircled{2} \rangle \end{array} \right]$$

The feature INVERTED (INV) has + values for verbs heading inverted phrases (Ginzburg and Sag 2000), and auxiliaries that head inverted constructions are specified as [AUX +]. The SLASH feature specification accommodates the fact that negative inversion constructions may have a non-negative dislocated element.

In Maekawa (2012), it is assumed that there are at least two subtypes of the *negative-inversion-ph*: *negative-filler-ph* and *negative-adjunct-ph*, as in (45).

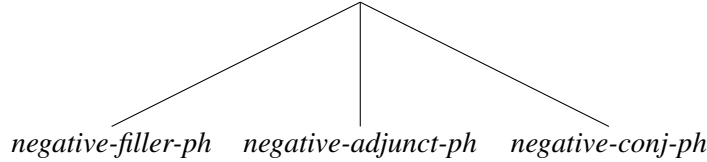
- (45) Constructional hierarchy of the *negative-inversion-ph* (Maekawa 2012)
- negative-inversion-ph*



However, neither of these phrase types can adequately account for the behavior of the *not only ... but also ...* construction because *not only* in the *not only ... but also ...* construction is neither a filler constituent nor an adjunct. Clause-initial *not only* is not a dislocated element because (as was explained in the previous subsection,) *not only* in seemingly “too high” positions are actually not dislocated. Rather, they always attach to the leftmost position of the conjunct, and the apparent “floating high” phenomenon is an illusion due to ellipsis in the second conjunct. Neither is clause-initial *not only* an adjunct, because I analyzed *not only*-phrases as a subtype of the *head-complement phrase* in section 5.1 (see (35)).

Therefore, I propose that there is a third subtype of the *negative-inversion-ph*: *negative-conj-ph*. Now, there would be three subtypes of the *negative-inversion-ph*, as in (46).

- (46) Constructional hierarchy of the *negative-inversion-ph* (modified)
negative-inversion-ph



I also modify constraints imposed on *negative-inversion-ph*, as in (47).

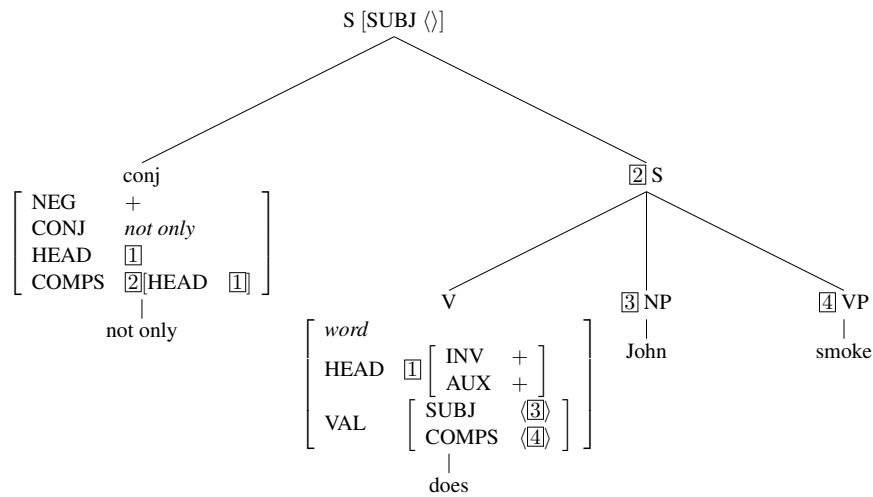
$$(47) \left[\begin{array}{l} \text{SUBJ} \\ \text{SLASH} \\ \text{HD-DTR} \\ \text{NON-HD-DTRS} \end{array} \left[\begin{array}{l} \langle \rangle \\ \{ \langle 3 \rangle [\text{NEG} \quad -] \} \\ \left[\begin{array}{l} \text{HEAD} \left[\begin{array}{l} \text{INV} \quad + \\ \text{AUX} \quad + \end{array} \right] \\ \text{VAL} \quad / \left[\begin{array}{l} \text{SUBJ} \quad \langle 1 \rangle \text{NP} \\ \text{COMPS} \quad \langle 2 \rangle \text{VP} [\text{SLASH} \quad \{ \langle 3 \rangle, \dots \}] \end{array} \right] \end{array} \right] \\ \langle [\text{NEG} \quad +], 1, 2 \rangle \end{array} \right] \right]$$

In (48) are constraints imposed on the new phrase type. Here, the head daughter is the negative conjunction (e.g. *not only*), which takes as its complement the entire following clause. The complement clause of the conjunct is headed by the inverted verb.

$$(48) \text{negative-conj-ph} \rightarrow \left[\begin{array}{l} \text{HD-DTR} \\ \text{NON-HD-DTRS} \end{array} \left[\begin{array}{l} \text{conj} \left[\begin{array}{l} \text{NEG} \quad + \\ \text{CONJ} \quad \neg \text{null} \\ \text{HEAD} \quad 1 \\ \text{COMPS} \quad 2 [\text{HEAD} \quad 1] \end{array} \right] \\ 2 \text{S} \left[\begin{array}{l} \text{HD-DTR} \left[\begin{array}{l} \text{word} \\ \text{INV} \quad + \\ \text{AUX} \quad + \\ \text{SUBJ} \quad \langle 3 \rangle \text{NP} \\ \text{COMPS} \quad \langle 4 \rangle \text{VP} [\text{SLASH} \quad \{ \langle 5 \rangle, \dots \}] \end{array} \right] \\ \text{NON-HD-DTRS} \quad \langle 3, 4 \rangle \end{array} \right] \end{array} \right]$$

The tree in (49) shows the structure for the first conjunct in *Not only does John smoke, but he also drinks*.

(49) *Not only does John smoke, but he also drinks.*



This new subtype—*negative-conj-ph*—can possibly account for other subject-auxiliary inversion phenomena with an initial negative conjunction such as *nor*. For example, the italicized second conjunct headed by *nor* in (50) can be analyzed in the same manner as in (49).

(50) John does not drink, *nor does he smoke.*

6 Conclusion

In this study, the syntactic properties of the *not only ... but also ...* construction were examined and analyzed. This is an idiosyncratic construction which differs from the *not ... but ...* construction in that the position of *not only* is freer than the position of *not*. Also, *not only*, but not *not* or *only*, triggers negative inversion in the clause-initial position. Therefore, the *not only ... but also ...* construction should be treated as a construction separate from *not ... but ...* or *only*.

Specifically, I analyzed the *not only ... but also ...* construction as a new subtype of the *coord-ph: correlative-coord-ph*, in which each conjunct is headed by a conjunction. Within the first conjunct headed by *not only*, shuffling of *not only* is possible in the word order domain, as long as it precedes the focused element. And the second conjunct headed by *but also* can undergo deletion of shared materials. When *not only* in the first conjunct appears in the clause-initial position, negative inversion occurs. I analyze this as a new subtype of *negative-inversion-ph: negative-conj-ph*.

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