Coordination of A-PP Strings in Nominals is Deletion of a Prosodic Constituent

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Abstract

Orth & Yoshida (2023) show that inside a nominal phrase two A-PP strings can apparently be coordinated (*I interviewed every candidate **possible in this group** and **promising in that group***). They analyze this as coordination of NPs below a shared D, plus across-the-board (ATB) head movement of N to D, analogous to the ATB movement analysis of gapping (e.g., Johnson 2009). I show here that this phenomenon receives a much more satisfying analysis in terms of the prosodic deletion analysis proposed by Bruening (2015) for non-constituent coordination. This analysis also makes different predictions from the ATB movement analysis, which I show are upheld.

1 Introduction

Orth & Yoshida (2023) note the existence of apparent coordination of A-PP strings inside nominals:

(1) I interviewed every candidate **possible in this group** and **promising in that group**. (Orth & Yoshida 2023: (8a))

Orth & Yoshida (2023) propose to analyze this as across-the-board (ATB) movement of N to D, with coordination of NPs below a single D. As they show, the A must linearly follow the head noun in the first conjunct, which they analyze as movement of N to D across the A. This ATB movement analysis is meant to be analogous to the ATB movement analysis of gapping (Johnson 2009).

In their footnote 15, Orth & Yoshida (2023) dismiss a possible alternative analysis, one based on the prosodic deletion analysis proposed for non-constituent coordination in Bruening (2015). I show here that their dismissal is unwarranted, and in fact the prosodic deletion analysis extends very nicely to this phenomenon. Further, it makes different predictions from the ATB movement analysis, which I show are upheld. The prosodic deletion analysis is therefore a more successful analysis than the ATB movement analysis.

Section 2 outlines the prosodic deletion analysis of non-constituent coordination proposed by Bruening (2015) and updates it to take into account recent advances in theories of the mapping between syntax and prosody. Section 3 extends this analysis to the A-PP strings in nominals discussed by Orth & Yoshida (2023) and shows that it provides a better account than ATB head movement.

2 The Prosodic Deletion Analysis of Non-Constituent Coordination

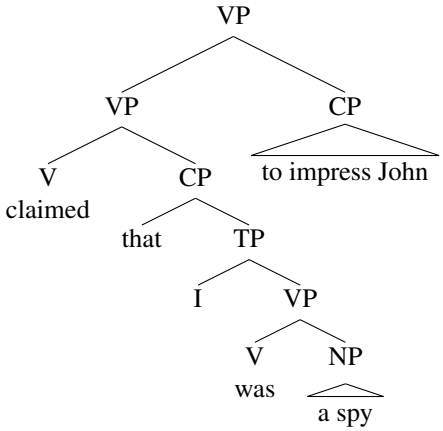
Bruening (2015) proposed the prosodic deletion analysis for what is called "non-constituent coordination," examples like the following:

(2) a. Mary caught a fish on Monday with a fly rod and on Tuesday with a spear. (Dowty 1988)

b. I claimed that I was a spy to impress John and an astronaut to impress Bill. (Sailor & Thoms 2013)

In (2b), what appears to be coordinated is *a spy to impress John* and *an astronaut to impress Bill*. However, the NP in each conjunct does not form a constituent with the non-finite rationale clause. The NP is the object of the embedded verb, while the rationale clause modifies the matrix VP:

(3)



This is why this phenomenon is referred to as "non-constituent coordination": What is apparently coordinated is not a syntactic constituent. The phenomenon is obviously problematic for the common hypothesis that coordination can only target constituents.

Bruening (2015) notes that examples of non-constituent coordination have to be pronounced with a particular prosody. For instance, the sentence in (2a) has to be pronounced with heavy stress on *Monday* in the first conjunct and *Tuesday* in the second conjunct. The example in (2b) requires stress on *spy* and *astronaut*, while everything that precedes *spy* is destressed and spoken without any sort of prosodic break. Bruening (2015) accordingly proposes that prosody is crucially involved in this type of coordination.

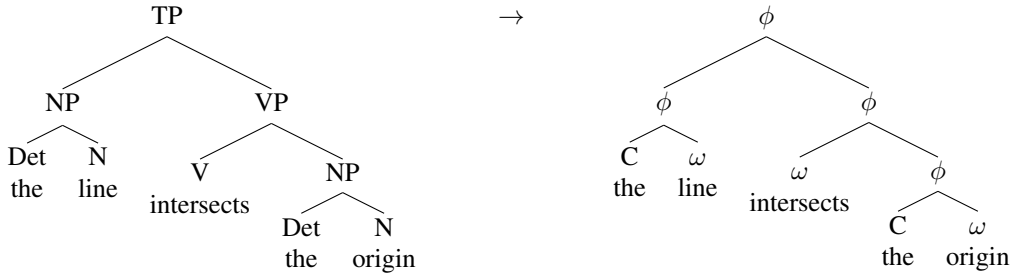
The proposal is that these types of examples always involve VP coordination, with ellipsis of shared material in the second conjunct (see Bruening 2015 for justification of the ellipsis analysis; "VP" can be vP, VoiceP, or whatever category one believes is involved). So for example (2a), we have VP coordination with deletion of the string *caught a fish* in the second conjunct:

(4) [$_{VP}$ [$_{VP}$ caught a fish on Monday with a fly rod] and [$_{VP}$ ~~caught a fish~~ on Tuesday with a spear]]

What is deleted is often not a syntactic constituent. The claim in Bruening (2015) is that it *is* a prosodic constituent.

I will update this proposal to take into account recent developments in syntax-prosody mapping. Relevant references on that mapping include Selkirk (1984, 1986, 2011), Beckman & Pierrehumbert (1986), Nespor & Vogel (1986), Pierrehumbert & Beckman (1988), Hayes (1989, 1990), Itô & Mester (2007). Most work assumes a Prosodic Hierarchy, where syllables are organized into feet and feet into prosodic words; prosodic words are themselves organized into phonological phrases (also sometimes called "major phrases" or "intermediate phrases"), and phonological phrases into intonational phrases. (Some analyses add a "clitic group" between prosodic word and phonological phrase.) Previously, it was generally assumed that each prosodic level consists of one or more units of the next level down. However, more recent research argues that prosody is fundamentally recursive (Wagner 2005, 2010, Selkirk 2011, Elfner 2015, Wu 2025). I will adopt the basics of the system proposed in Elfner (2015) and followed and expanded on in Wu (2025). In this theory, every syntactic XP maps onto a phonological phrase (ϕ), while every lexical syntactic head X^0 maps onto a prosodic word (ω). Functional heads map onto clitics (C; on functional heads see Tyler 2019). Null heads and traces are ignored, but elided material is not; see Colley & Bassi (2022), Wu (2025) for arguments that elided material is present for prosody. According to this algorithm, a simple SVO sentence in English (ignoring null heads and traces) will map onto a prosodic structure as follows:

(5)



As can be seen, there is recursion in phonological phrases.[1] However, the subject NP consists of a phonological phrase that does not dominate any other phonological phrase. This puts the subject in a separate phrase from the VP, which is all grouped together. This is exactly what Nespor & Vogel (1986), Hayes (1989) concluded for English. For instance, the English Rhythm Rule, which retracts stress on words like *thirtéen* in phrases like *thírteen mén*, is supposed to apply within a phonological phrase but not across phonological phrase boundaries (Nespor & Vogel 1986, Hayes 1989). As Hayes (1989) shows, the Rhythm Rule does not apply across the subject and verb, but can apply across the verb and object:

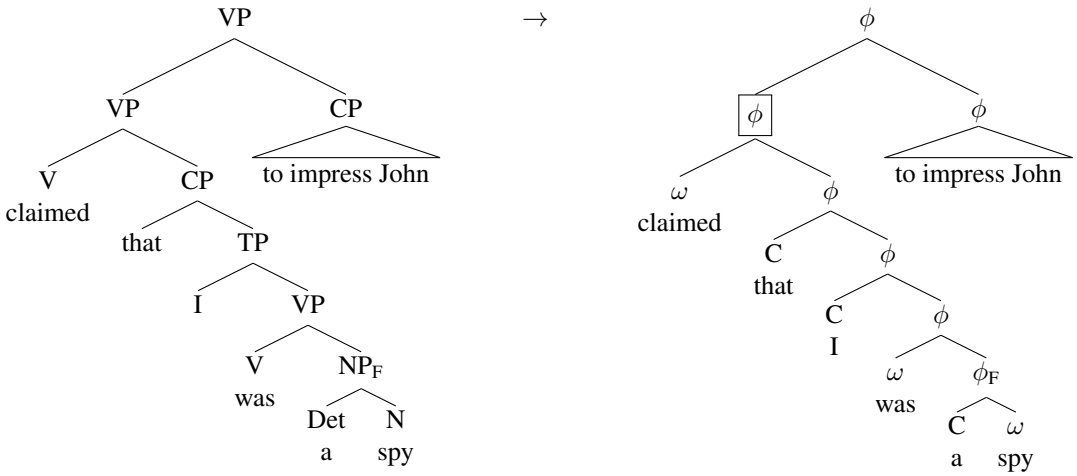
(6) a. Tennessée will lícense them. / ??Ténnessee will lícense them. (Hayes 1989: (25b))
b. It'll íntersect the órigin. (Hayes 1989: (24b))

Reinterpreting the Rhythm Rule for recursive prosodic structures, we can say that stress may retract on a given prosodic word ω if the phonological phrase ϕ that is the mother of ω also dominates a stressed prosodic word ω' and ω and ω' are separated only by Cs. Then a stressed verb cannot trigger stress retraction inside a subject, but a stressed object can trigger stress retraction on the verb.

[1]The topmost ϕ may be what earlier work referred to as the intonational phrase; it is not clear if such a category needs to be distinguished once recursive phonological phrases are admitted. See Wu 2025 for discussion and references. Whether there is such a category will not be important here.

Turning to non-constituent coordination, the tree in (3) would map onto prosodic structure as follows, where the NP *a spy* is focus marked (the internal structure of the adjunct CP will not be important):

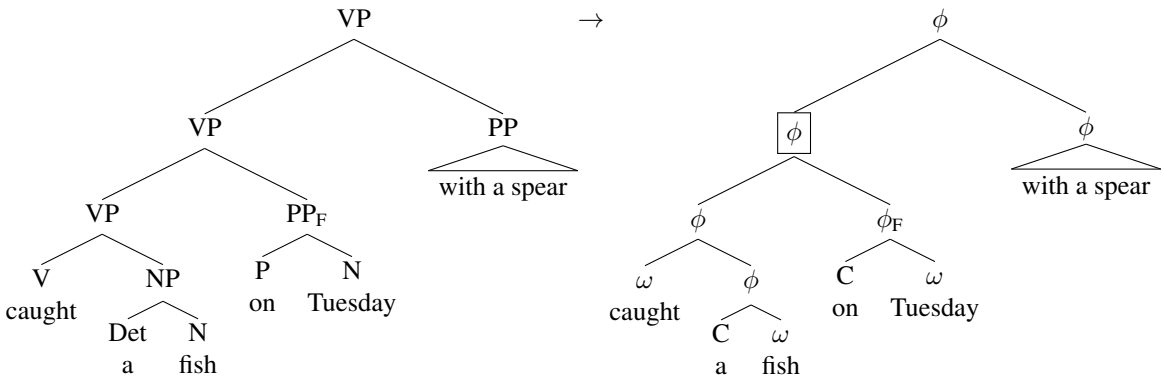
(7)



The second conjunct is assumed to be mapped analogously. The claim in Bruening (2015) is that the string *claimed that I was* is a prosodic constituent: Namely, it is a phonological phrase minus the most prominent member of that phonological phrase. In this case, the phonological phrase is the one boxed in the tree, consisting of *claimed that I was a spy*, and the most prominent member of that phrase is the F-marked phrase *a spy*. This is a contrastive NP that receives focal stress. All the material preceding *a spy* undergoes pre-focal compression.[2] None of it is stressed and there are no pauses. The idea in Bruening (2015) is that deletion in the second conjunct is essentially a radical form of pre-focal compression, licensed under identity with the first conjunct.

Now consider example (2a). The second conjunct would have the following syntactic structure mapped onto prosodic structure. Following Elfner (2015), Wu (2025), non-branching XPs—here the NP *Tuesday*—are mapped only to prosodic words and not to phonological phrases (but I will have more to say about this below):

(8)



In this case, the most prominent member of the boxed phonological phrase is the string *on Tuesday*,

[2]Pre-focal compression has been described most extensively in German (Baumann et al. 2007, Fery & Kügler 2008, Kügler 2008, Roessig 2023). In English, Breen et al. (2010) found that, in conditions of narrow focus on the object, the preceding subject and verb were produced with shorter duration, lower intensity, and lower F0 than in an all-new utterance (one answering the question, "What happened?").

which is F-marked and contrastive and stressed. All the material preceding this string undergoes pre-focal compression in the first conjunct.

We can now describe non-constituent coordination as follows: In VP coordination, the VP in the second conjunct is mapped to a phonological phrase dominating two phonological phrases. In the first of those two phonological phrases, all of the material besides the most prominent F-marked phrase can be deleted, if that material is identical to material in the first conjunct.

One thing to note is that the F-marked phrase has to be right-aligned with the first phonological phrase (F-marked phrases written with capitals):

(9) a. * I claimed that MARY was a spy to impress JOHN, and JANE to impress BILL.
b. I claimed that MARY was a spy to impress JOHN, and that JANE was to impress BILL.

In (9a), a left branch is what is F-marked (the subject of the embedded clause). However, a discontinuous string around that F-marked phrase cannot be deleted. Rather, in (9b), it appears that the entire CP can be F-marked instead, with shared material to the left of the CP deleted. (In addition, the CP can have VP ellipsis within it.) The fact is that the pronounced remnant in the first ϕ of the second conjunct has to abut the right edge of that ϕ.

We could view the deletion as deletion of a linear string starting from the left edge of the second conjunct, as Wilder (1997), Beavers & Sag (2004), Hofmeister (2010) do. For instance, we could say that the deletion is literally a radical form of pre-focal compression. However, post-focal compression also exists (e.g., Ladd 1980, 2008, Eady & Cooper 1986, Xu & Xu 2005, Liu & Xu 2007, Vander Klok et al. 2018), so it is not clear why radical pre-focal compression and radical post-focal compression could not co-occur and render (9a) acceptable. Referring to a linear string ("left edge ellipsis") as the above references do is also conceptually less attractive than referring to a prosodic constituent.[3] I will therefore state the deletion rule in terms of prosodic constituents but impose an alignment condition on it, and hope that future work can improve our understanding of the factors involved here. I state the rule formally as follows:

(10) *The Non-Constituent Coordination Rule:*
In a coordination [[$_{\text{XP1}}$ ϕ1 ϕ2] CONJ [$_{\text{XP2}}$ ϕ1′ ϕ2′]], delete all but the F-marked ϕ in ϕ1′.

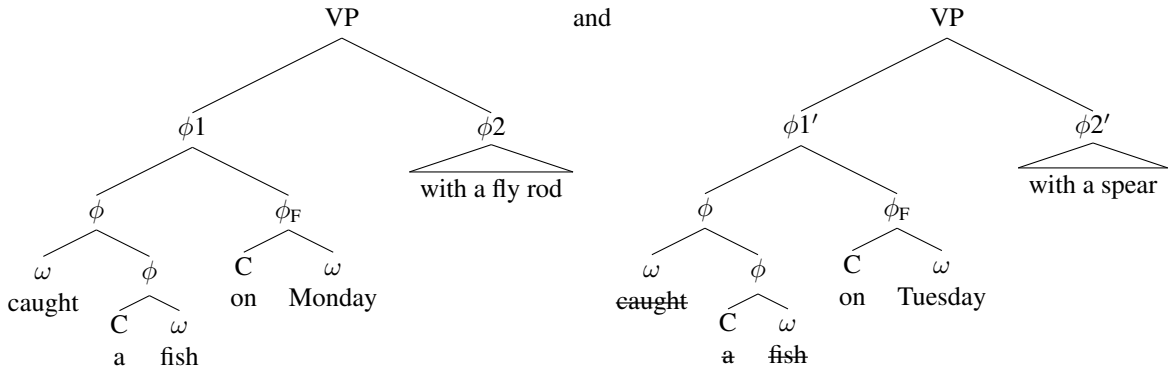
Condition:
The right edge of the F-marked ϕ aligns with the right edge of ϕ1′ and all material that is not F-marked in ϕ1′ is identical to non-F-marked material in ϕ1.

In example (2a), the two coordinated VPs are phrased as shown below. The stress that is necessary is now indicated with capitals in the full example:

(11) Mary caught a fish on MONday with a FLY ROD and on TUESday with a SPEAR.

[3] Bruening (2015) also proposes that all deletion targets a unit and deletes everything except the most prominent member of that unit. If the unit is syntactic, the most prominent member is the highest specifier, if there is one, otherwise the highest head. So in sluicing, deletion targets CP and deletes everything except Spec-CP. In VP ellipsis, deletion targets AuxP and deletes everything except the head Aux. This proposal has the nice consequence of explaining why C is always deleted in sluicing, something that the typical TP-deletion analysis struggles to explain (e.g., Merchant 2001). Viewing syntactic ellipsis this way makes prosodic deletion and syntactic deletion parallel, which is a conceptual advantage.

(12)

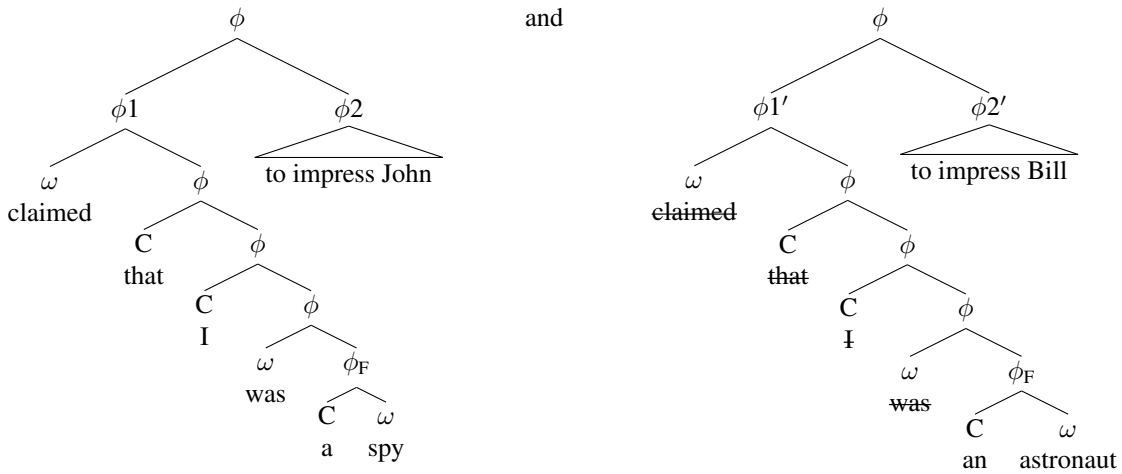


In each conjunct, *caught a fish on Monday/Tuesday* forms a phonological phrase ($\phi 1$ and $\phi 1'$), while the PP *with a fly rod/spear* is parsed as a separate phonological phrase ($\phi 2$ and $\phi 2'$). The PP *on Monday/Tuesday* is F-marked in each conjunct, and aligns with the right edge of $\phi 1/\phi 1'$. All material that is not F-marked in $\phi 1$ and $\phi 1'$ is identical, and so it can be deleted in $\phi 1'$. Note that the rule only targets $\phi 1'$, and so material in $\phi 2'$, here *with a spear*, is unaffected.

Example (2b) would be parsed as follows:

(13) I claimed that I was a SPY to impress JOHN and an AStronaut to impress BILL.

(14)



Once again, the F-marked ϕ is right-aligned with $\phi 1'$, and non-F-marked material in $\phi 1'$ is identical to non-F-marked material in $\phi 1$, and so it can be deleted. The rule again leaves $\phi 2'$ unaffected, and the string *to impress* cannot delete, even though there is an identical string in $\phi 2$.

Bruening (2015) contrasts the prosodic deletion theory with a movement-and-deletion theory proposed by Sailor & Thoms (2013). In this theory, the remnants in the second conjunct move independently as two different constituents, while the phrase they vacate deletes. Bruening (2015) shows that this makes incorrect predictions regarding islands to movement. For instance, reduced relative clauses inside NPs are strong islands to extraction but permit non-constituent coordination:

(15) a. I disproved theories held by Wittgenstein last year and Einstein this year.
b. * Einstein, I disproved theories held by this year.

Additionally, as pointed out by Dowty (1988), only the preposition of the *first* remnant can be deleted:

(16) a. Mary caught a fish with a spear and a rabbit with a snare.
b. * Mary caught a fish with a spear and a rabbit a snare.

(17) a. Mary read a book about Nixon at the airport and Reagan at the train station.
b. * Mary read a book about Nixon at the airport and Reagan the train station.

In the movement theory, the two remnants in the second conjunct undergo independent instances of movement. Given that English allows preposition stranding, the preposition of the second remnant should be deletable. It should be able to be stranded and included in the ellipsis. Preposition stranding is perfectly grammatical from the position of the second remnant in the above examples:

(18) a. What did she catch a rabbit with?
b. Which train station did she read that book at?

The movement analysis fails to explain why deletion can only target the preposition of the leftmost remnant. In contrast, in the prosodic theory, this follows because deletion only targets $\phi 1'$ and not $\phi 2'$ in the second conjunct:

(19) ($_{\phi 1'}$ ~~caught~~ a rabbit)($_{\phi 2'}$ with a snare)

There is no way to delete *with*, since it does not fall under the scope of the deletion rule.

As for prepositions in $\phi 1'$, pronouncing them is sometimes required, but more typically optional:

(20) a. Mary caught a fish on Monday with a fly rod and *(on) Tuesday with a spear
b. I disproved theories held by Wittgenstein last year and (by) Einstein this year.
c. Mary read a book about Nixon at the airport and (about) Reagan at the train station.
d. I talked to Smith on Tuesday and (to) Jones on Wednesday.

In the prosodic deletion analysis, whether the preposition is pronounced or not will depend on whether it is part of the F-marked ϕ or not. Apparently, with some prepositions only the whole PP can be F-marked (alternatively, the P obligatorily cliticizes onto its complement), while with others, either the PP or just the NP complement of the P can be. I will have to leave full exploration of this issue to future work, but note that only the prosodic deletion analysis has a potential explanation for the facts here. The movement theory certainly does not, and the left edge ellipsis analysis with deletion of a linear string would have to add additional constraints.

This section has shown that the prosodic deletion analysis is the most successful account of non-constituent coordination (even though some aspects of it are still not fully understood). As I show in the next section, it also extends nicely to the data uncovered by Orth & Yoshida (2023).

3 A Prosodic Deletion Analysis of A-PP Strings in NP Coordination

Let us now return to the apparent gapping inside NPs discovered by Orth & Yoshida (2023). I repeat one of their examples below:

(21) I interviewed every candidate possible in this group and promising in that group. (Orth & Yoshida 2023: (8a))

As Orth & Yoshida (2023) point out, the pronounced conjuncts are not constituents, on most analyses of NPs: An adjective and a PP do not form a constituent to the exclusion of the head noun and the determiner. This type of coordination is therefore puzzling in the same way as non-constituent coordination.

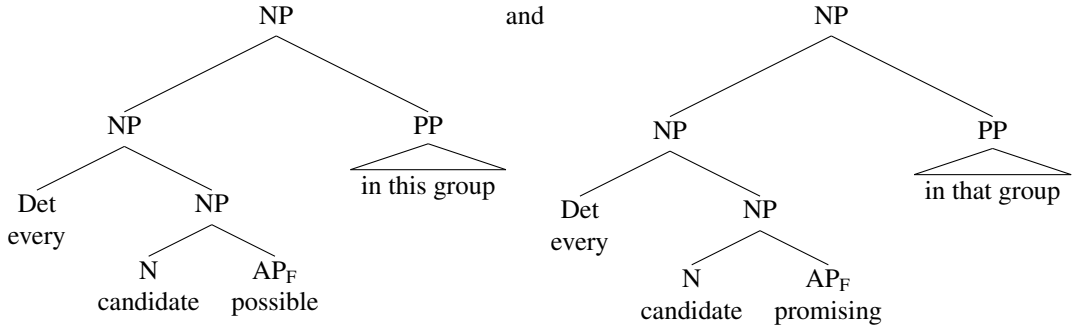
3.1 Applying the Prosodic Deletion Analysis

Orth & Yoshida (2023: footnote 15) dismiss the prosodic deletion analysis of Bruening (2015) as a possible account of this phenomenon. However, neither reason they give is a valid one. First, they state that there is no contrastive prosody in the examples they examine, like (21). Nothing could be further from the truth. The two As are clearly semantically contrastive, as are the two PPs. In English, semantic contrast is typically accompanied by prosodic prominence. In my judgment at least, contrastive stress has to go on *possible* and *promising* in (21). It is possible that some speakers do not require emphatic stress, but the As still receive stress, even if this is not necessarily emphatic. So does a prosodic word in the PP. Some other speakers that I have consulted have also volunteered that examples of this sort are only acceptable "if the prosody is right." I take this as evidence that prosody is important to this pattern of deletion.

Second, Orth & Yoshida (2023) state that the examples of non-constituent coordination in Bruening (2015) involve deletion of all the non-head elements of the coordination, whereas in their examples, it is the head noun that would have to be deleted. This objection seems to be based on a confusion of syntactic and prosodic categories. As described above, the deletion rule in Bruening (2015) targets the first phonological phrase in the second conjunct and deletes all but the head of that phonological phrase, where the head is an F-marked phonological phrase. The head of a prosodic unit does not necessarily correspond to the head of a syntactic phrase; in fact it very often does not, in English.

The rule proposed for non-constituent coordination in Bruening (2015) would actually yield exactly the right result for an example like (21). I assume that the syntactic structure is something like the following. I assume NP coordination and do not adopt the DP Hypothesis, but this is not important for purposes here. Whether the post-nominal AP is base-generated in a post-nominal position or attains that position through movement is also not important here, since traces of movement are ignored for prosody:

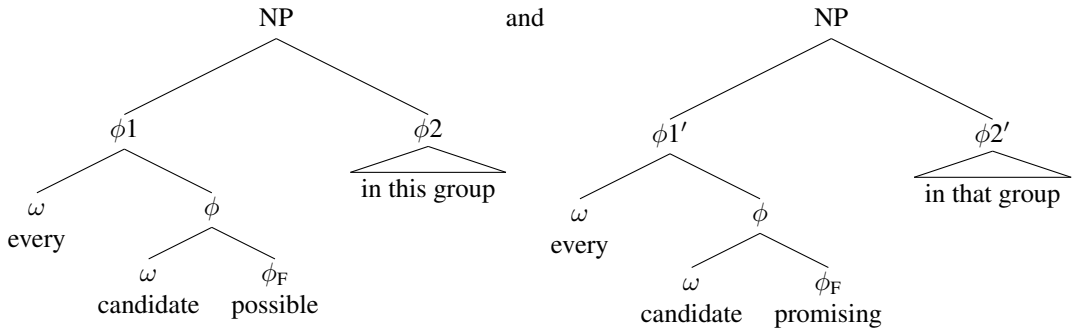
(22)



In order for this to map onto a prosodic structure that will fall under the scope of the deletion rule in (10), the final PP must be adjoined high, above the quantifier, as shown. It could have extraposed

to this position from a lower one. Either way, if it is high as shown, then the two conjuncts are mapped to prosody as follows:

(23)



One thing that is important is that a non-branching post-nominal AP can be mapped to a phonological phrase rather than just to a prosodic word. I hypothesize that this is actually about F-marking: A non-branching XP maps to a phonological phrase if it is F-marked. I believe this can be true of a focused prenominal adjective, too. The Rhythm Rule fails to apply if a prenominal modifier is contrastive:

(24) (Seven men chose door number one.) No, thirtéen men chose door number one.

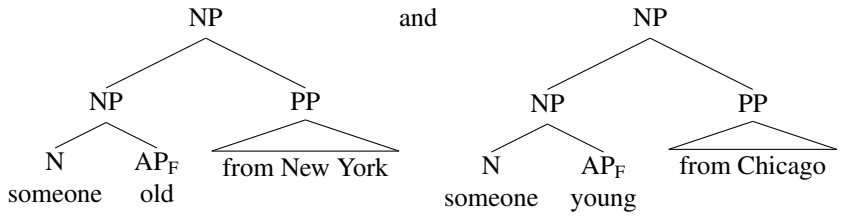
The structure in (23) is a valid environment for the rule in (10) to apply. The F-marked ϕ in $\phi1'$ is right-aligned with it, and non-F-marked material in $\phi1'$ is identical to non-F-marked material in $\phi1$. *Every candidate* can therefore delete. Material in $\phi2'$ is unaffected, exactly as in non-constituent coordination. Deletion in this analysis does target the non-head in prosodic terms, but in this case that includes the head in syntactic terms (the N).

As can be seen, the rule gives exactly the right result for this example. It does for every example in Orth & Yoshida (2023). I reproduce another of their examples below:

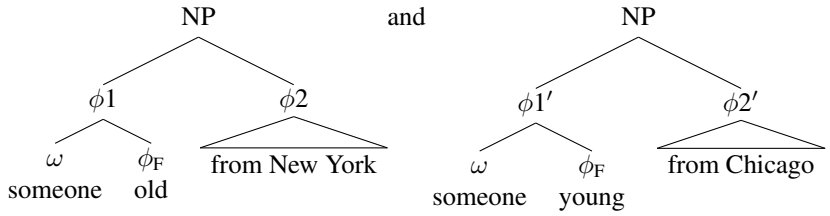
(25) I interviewed someone old from New York and young from Chicago. (Orth & Yoshida 2023: (1))

This would have the following syntactic structure and prosodic parse:

(26)



(27)



Once again, this is a context for the deletion rule in (10): The F-marked ϕ in $\phi1'$ is right-aligned with it, and non-F-marked material in $\phi1'$ is identical to non-F-marked material in $\phi1$. Deletion targets the non-F-marked material in $\phi1'$, deleting *someone*.

The prosodic deletion analysis also explains all of the facts discussed by Orth & Yoshida (2023). It also makes different predictions. I go through these in the following subsections.

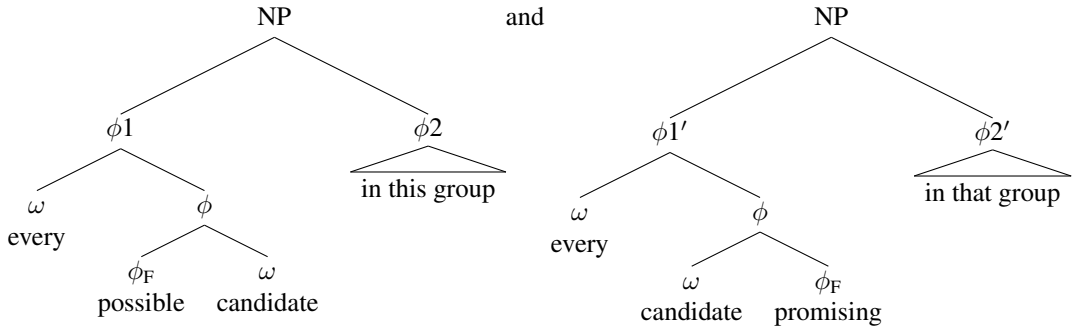
3.2 Order Must Be N-A-PP

Orth & Yoshida (2023) show that the order in the first conjunct has to be N-A-PP, with the head noun before the adjective. The usual A-N order of English is not allowed:

(28) * I interviewed every possible candidate in this group and promising in that group. (Orth & Yoshida 2023: (8b))

In the prosodic deletion analysis, there are two possible sources for this. In the first, the order in the first conjunct is A-N-PP but the order in the second conjunct is N-A-PP:

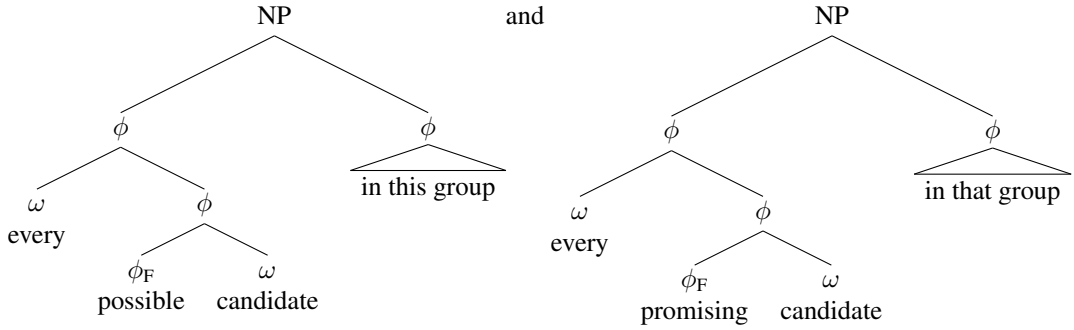
(29)



In this case, non-F-marked material in $\phi 1'$ is not identical to non-F-marked material in $\phi 1$. They include the same segments and symbols, but their order and alignment is different. I assume that this is enough to make them non-identical.

The second possible source has the order A-N-PP in both conjuncts:

(30)



This does not meet the condition for deletion in (10): The F-marked ϕ in $\phi 1'$ is not right-aligned with $\phi 1'$. Deletion cannot apply.[4]

[4]If the ϕ that includes the head noun is F-marked instead, the condition is met, and deletion yields *I interviewed every possible candidate in this group and promising candidate in that group*. This is acceptable, but it is indistinguishable from coordination below *every* (with no extraposition of the final PP).

3.3 Limited to Coordination

Orth & Yoshida (2023) also show that this deletion is limited to coordination contexts, and is not permitted in subordination:

(31) * I interviewed every candidate possible in this group {before/with} promising in that group. (Orth & Yoshida 2023: (9))

Non-constituent coordination is also limited to coordination contexts:

(32) a. * Mary caught a fish on Tuesday with a fly rod after on Monday with a spear.
b. * Mary read a book about Nixon at the airport because Reagan at the train station.
c. * I said that I was an astronaut to impress Bill before a spy to impress Sam.

I do not have an explanation for why this is, but the particular deletion rule involved seems to be triggered specifically by coordination. For purposes here, I simply state the rule such that it refers to the category of conjunctions (CONJ; see 10). I suspect that deletion referring to a prosodic constituent rather than a syntactic one is specifically a property of coordination, but I will have to leave finding a deep explanation for this to future work.

3.4 NPI Licensing

The prosodic deletion analysis also explains NPI licensing:

(33) I met no one old from New York or young from any other city. (modified from Orth & Yoshida 2023: (14))

Orth & Yoshida (2023) claim that NPI licensing shows that the D of the first conjunct c-commands the second conjunct, and this therefore justifies their analysis of NP coordination below a single D. It might seem that this is especially problematic for the analysis proposed here, where the final PP has to be higher in the tree than the determiner. However, this is illusory. Various researchers (e.g., Penka 2011) have proposed that negative quantifiers like *no one* are actually existential elements that Agree (Chomsky 2000) with an abstract negative operator NEG that is located roughly where sentential negation occurs. In (33), this would be above the NP coordination:

(34) I NEG met [$_{NP}$ [$_{NP}$ no one old from New York] or [$_{NP}$ — young from any other city]].

It is this abstract NEG that licenses the NPI.[5]

Hence, NPI licensing is not a problem for the prosodic deletion analysis, and it does not require coordination below a single D.

[5] Acquaviva (2002) proposes that NPIs like English *any* require both semantic licensing and morphological licensing. Semantic licensing is achieved by being in the scope of an appropriate operator. Here, this is the abstract NEG. Morphological licensing requires linear precedence: A morphologically negative element like *no (one)* must precede the NPI. One does in this example.

3.5 Differing Predictions

Importantly, the two analyses make different predictions about the co-occurrence of prenominal and postnominal adjectives. The ATB movement analysis predicts that an A-PP string will not be able to occur by itself in the second conjunct if there is a prenominal adjunct in the first conjunct. This is because, if there is a prenominal adjective, then the N has not moved to D; it therefore could not have undergone ATB movement. The prosodic deletion analysis, in contrast, predicts that this will be possible. In my judgment, it is possible, as in the examples in (35). To verify this judgment, I informally surveyed nine native speakers of English. Two rejected the base sentence in (21) and did not give judgments on the examples in (35). Two others also rejected the base sentence in (21), but then said that the examples in (35) were more acceptable. Only one of the nine accepted the base sentence in (21) but then rejected the sentences in (35) (that person was British while the others were all American, which may or may not be relevant). All of the others accepted at least some of the examples in (35). The most widely accepted one was (35e), with six people accepting it; the least accepted was (35c), with two accepting it and one saying it is borderline.

(35) a. I interviewed every available candidate possible in this group and promising in that group.

b. You need to push every red button reachable in the cockpit and unreachable behind the wall panel.

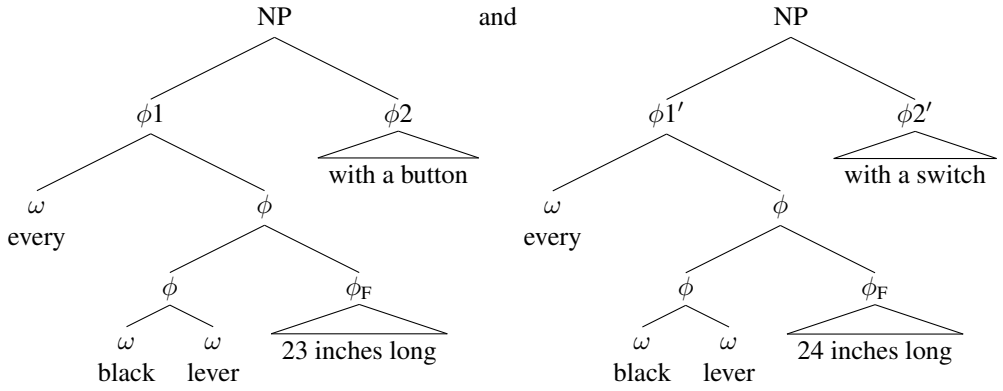
c. To get past this level, it helps to mark the location of every deep river two miles wide full of crocodiles and three miles wide full of piranhas.

d. You will need to pull every black lever 23 inches long with a button and 24 inches long with a switch.

e. I pointed out the few children taller than the teacher in the first grade and taller than the principal in the second grade.

Given that only one of nine native speakers rejected all of these, I expect these judgments to generalize to the general population. I therefore take examples of this sort to be grammatical. The prosodic deletion analysis permits them:

(36)



The deletion rule in (10) can apply here: The F-marked ϕ in $\phi 1'$ is right-aligned with $\phi 1'$, and non-F-marked material is identical across $\phi 1$ and $\phi 1'$.

The acceptability of these examples shows that the prosodic deletion analysis is superior to the ATB movement analysis of Orth & Yoshida (2023).

3.6 Coordination of PP-PP Strings

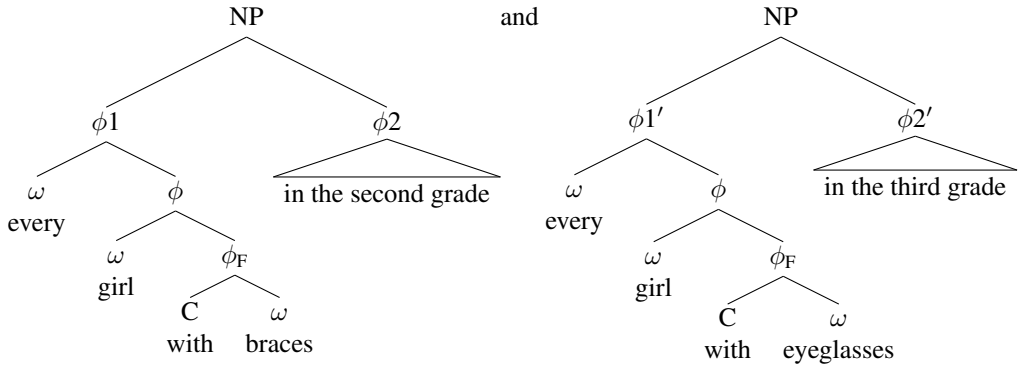
The prosodic deletion analysis also extends to coordination of post-nominal PP-PP strings (not discussed by Orth & Yoshida 2023), as in the following examples:

(37) a. Richard's gift of the helicopter to the hospital and of the bus to the school (Adger 2003: 268, (118))

b. every girl with braces in the second grade and (with) eyeglasses in the third grade

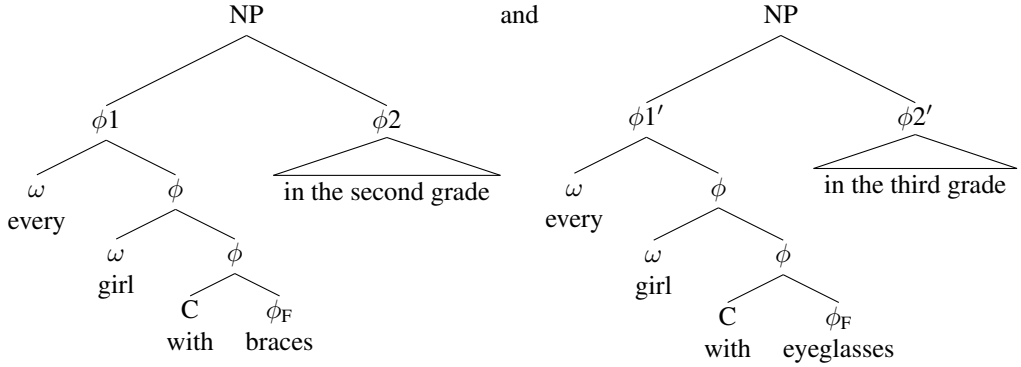
In most analyses of NPs, two post-nominal PPs do not form a constituent to the exclusion of the head noun (or other NP material). Yet a PP-PP string can apparently be coordinated. Note also that the first preposition can be missing in (37b), exactly as in non-constituent coordination. This follows if it can be (optionally) parsed as part of the F-marked ϕ. Here is the structure with the entire PP F-marked:

(38)



Alternatively, just the NP complement of P can be F-marked:

(39)



Either way, the structure meets the conditions for deletion: The F-marked ϕ in $\phi 1'$ is right-aligned with $\phi 1'$, and non-F-marked material is identical across $\phi 1$ and $\phi 1'$. In (38), *with* is not deleted since it is part of the F-marked ϕ, while in (39) it is deleted.

Moreover, coordination of PP-PP strings is also possible in the presence of a shared prenominal adjective, showing that the head N has not undergone movement to D:[6]

(40) a. the irrational fear of every professor of his students and (of) every dean of his secretary

[6]Example (40a) was provided by Masaya Yoshida, email correspondence.

b. Audition every handsome man over six feet with a beer belly and over six-five with a six-pack!

The ATB-movement analysis could be modified to allow shorter ATB movement, of N to, say, Num or n (as Adger 2003 proposes), but this would not account for the optionality of certain prepositions. ATB movement of the head N should leave any preposition unaffected, meaning it would have to be pronounced. I conclude that the prosodic deletion analysis in Bruening (2015) is superior to the ATB movement analysis proposed by Orth & Yoshida (2023), or any head movement analysis.

3.7 Summary

The prosodic deletion analysis proposed by Bruening (2015) extends very naturally to the A-PP strings discovered by Orth & Yoshida (2023). Analyzing them this way treats them as instances of non-constituent coordination, only with coordination of NPs rather than VPs. This seems to be correct, since they behave alike in most ways, including mostly optional deletion of a preposition.[7]

4 Conclusion

In this paper, I have shown that the prosodic deletion hypothesis proposed for non-constituent coordination in Bruening (2015) extends nicely to the coordination of A-PP strings discussed by Orth & Yoshida (2023). If correct, this requires us to recognize that an ellipsis operation can operate over prosodic structure. In strongly serial models of grammar, where the mapping from syntax to prosody strictly follows the syntax, this will require a prosodic operation of deletion in addition to syntactic ones. In contrast, if syntax and prosody are built in parallel, there can be just one operation of deletion, which in different contexts can operate over the prosodic representation or the syntactic one.

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[7] Jackendoff (1971) and Culicover & Jackendoff (2005) treat examples like the following as gapping in the nominal domain:

(i) a. Bill's story about Sue and Max's about Kathy both amazed me. (Jackendoff 1971: (34a))
b. I bought three quarts of wine and two of Clorox. (Jackendoff 1971: (34b))

I view this as the generally recognized ellipsis process operative in NPs, as in examples like *Bill's story lasted longer than **Max's***. It is not limited to coordination, contra Jackendoff (1971). Yoshida et al. (2012) also show that this construction is not gapping. I will not address this construction here, as it does not appear to be an instance of prosodic deletion.

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