Tidying up a few loose ends

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Abstract

Over the course of several publications (Aelbrecht & Harwood, 2015; Harwood, 2015, 2017) we argued that the clause-internal phase in Standard English is larger than standardly assumed. That is, rather than only extending as far as vP, it actually extends as far as the edge of the progressive aspectual layer. This implies that progressive aspect and voice are also included within the lower phase, but crucially not perfect aspect or modality, which together with T° and C° comprise the higher clausal phase. However, whilst the basic idea of this proposal has been met with open arms by the entire linguistic community, without a single opposing view in sight,[1] much debate surrounds exactly how this finding should be formalised. In this paper we try to tie up this loose end by claiming, following an old suggestion by Dany, that a projection exists between the progressive and perfect aspectual layers in English which is always projected, and which projects the head of the clause-internal phase. We show how almost all problems regarding the formalisation of Aelbrecht & Harwood's seminal proposal are solved by this cunning solution.

1 Introduction

Dearest Dany, let's start with the obvious: many happy returns on your 60th birthday. Okay, now that that's out of the way, let's get down to business. As you know we are both no longer involved in linguistics. We just couldn't cut the mustard, you might say. However, when the proposal for this festschrift came up, we thought it'd be fitting that our very last piece of linguistic work be in honour of your 60th birthday. So we've come out of retirement for one last job. We've dusted down our text books, fine-tuned our native-speaker intuitions, and upped

[1] Or at least, we wish.

the pomposity of our writing style. We can't guarantee that what follows will necessarily be our best linguistic work, but it will definitely be our last (We don't think anyone will ask us back after this contribution). So, here we go, enjoy.

Over the course of several publications (Aelbrecht & Harwood, 2015; Harwood, 2015, 2017), Aelbrecht and Harwood (though mainly Harwood) argued that the clause-internal phase in English does not simply extend as far as vP, but rather that it extends as far as the edge of the progressive aspectual layer. This means that progressive aspect and voice are contained within the clause-internal phase in English. Perfect aspect and modality, however, are situated external to this phase, being contained within the higher clausal phase together with T° and C°. This claim is argued for on the basis of evidence from VP ellipsis, VP fronting, existential constructions, and reduced relative clauses.

While this claim is empirically flawless, the problem remains as to how exactly this proposal should be formalised. What acts as the phase head exactly? Is it the phasal complement or the entire phase that is spelled out? How can we allow for a flexible phase boundary? Indeed, trying to reconcile Aelbrecht & Harwood's proposal with our traditional understanding of phase theory (Chomsky, 2000, 2001) has become something of an uphill struggle.

However, there is a simple and elegant solution to the formalisation problem that both you, Dany, and Jeroen, had suggested to us, which we would like to explore in this paper. Namely we posit that a projection exists between perfect and progressive aspect in English which always projects the clause-internal phase. We will show how this suggestion of yours tidies up a number of loose ends.

The rest of this paper is structured as follows: section 2 outlines the basic claim of Aelbrecht & Harwood in more detail. Section 3 outlines the issues that arise when this claim is formalised. Section 4 then presents the solution. And surprise surprise, section 5 concludes.

2 Basic Data

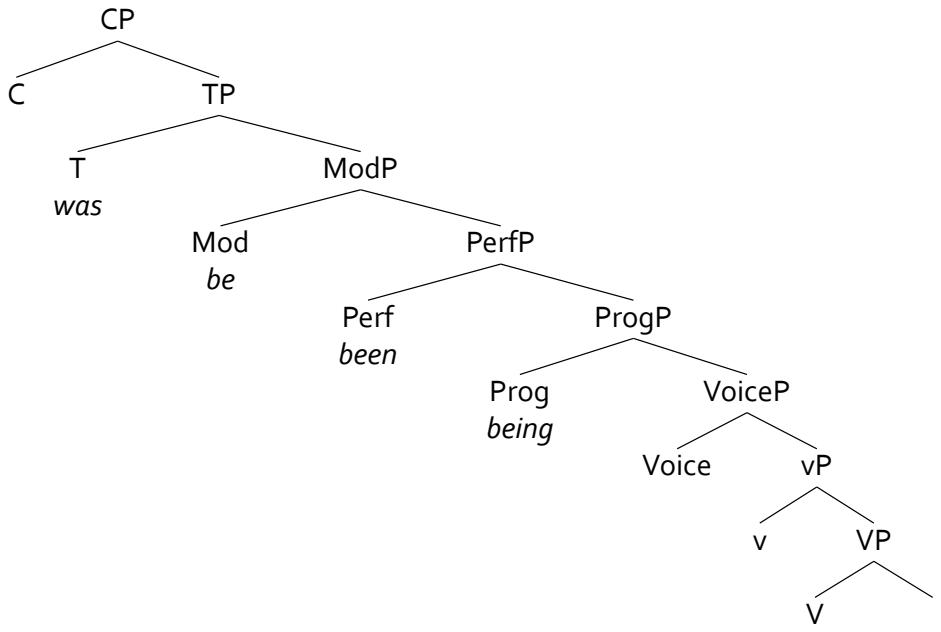
2.1 VP Ellipsis

Aelbrecht & Harwood (2015), riding off the back of Akmajian & Wasow (1975) and Sag (1976), noted that auxiliary verbs inflected for progressive morphology (i.e., *being*) in Standard English are obligatorily elided under VP ellipsis (VPE), while auxiliaries inflected for perfect morphology (i.e., *been*) can escape ellipsis:

(1) a. Dany was being smurfed, and Guido was ~~being smurfed~~, too.
b. *Dany was being smurfed, and Guido was being ~~smurfed~~, too.
c. Dany has been smurfed, and Guido has been ~~smurfed~~, too.

We assume, as per Kayne (1993), Bošković (2014) and Harwood (2014), that all auxiliary verbs in English raise for reasons of inflection to the relevant inflectional head. This implies the following distribution:

(2)



In order for *being* to be elided under VPE but for *been* to survive the ellipsis, Aelbrecht & Harwood (2015) concluded that VPE must target ProgP, but not PerfP, as illustrated in the pretty diagram below:

(3) [$_{CP}$ [$_{TP}$ was [$_{ModP}$ be [$_{PerfP}$ been ([$_{\sout{ProgP}}$ ~~being~~ [$_{\sout{VoiceP}}$ [$_{\sout{vP}}$ [$_{\sout{VP}}$]]]]]]]]

Holmberg (2001); Gengel (2007); Van Craenenbroeck (2010); Gallego (2010); Rouveret (2012); Bošković (2014) have all claimed that VPE targets the phasal complement of the clause-internal phase, i.e. the spell-out domain. This would therefore imply that ProgP is within the phasal complement of the clause-internal phase, while PerfP is not.

2.2 VP Fronting

Aelbrecht & Harwood (2015), again riding off the back of Akmajian & Wasow (1975); Roberts (1998); Johnson (2001), note that VP fronting (VPF) seems to target a similar chunk of structure to VPE. That is, *being* must be included in the fronted constituent, while *been* must be stranded by it:

(4) If Dany says he was being hunted like a rabbit, then...
  a. [being hunted like a rabbit]$_i$ he was t_i.
  b. *[hunted like a rabbit]$_i$ he was being t_i.

(5) If Dany says he has been hunted like a rabbit, then...
  a. *[been hunted like a rabbit]$_i$ he has t_i.
  b. [hunted like a rabbit]$_i$ he has been t_i.

In order for *being* to be included in the fronted constituent but for *been* to be stranded by it, VPF, similar to VPE, must also target ProgP. Chomsky (2005); Koopman (2010); Aelbrecht & Den Dikken (2013) have all claimed that the only phrases that can undergo movement are phases. If this is correct, then the VPF data once again suggests that ProgP constitutes the clause-internal phase in English rather than vP.

2.3 Existential Constructions

Harwood (2015) (following Milsark 1974), notes that the logical subject (a.k.a the associate) of an existential construction must precede *being*, but follow *been*:

(6) a. There were several smurfs being accosted by Dany and his gang of voodoo warriors.
  b. *There were being several smurfs accosted by Dany and his gang of voodoo warriors.

(7) a. *There have several smurfs been accosted by Dany and his gang of voodoo warriors.
  b. There have been several smurfs accosted by Dany and his gang of voodoo warriors.

In order for the associate to precede *being* but follow *been*, Harwood (2015) claims that it must occupy Spec-ProgP. Chomsky (2000, 2001) claims that the associate in English occupies the edge of the clause-internal phase. This would imply that

ProgP projects the edge of the clause-internal phase in English.

2.4 Reduced Relative Clauses

Harwood (2017) observes that reduced relative clauses (RRCs) in English appear to target the same unit of structure as VPE, VPF and *there*-existentials. That is, only *being* is permitted in RRCs, *been* is not:

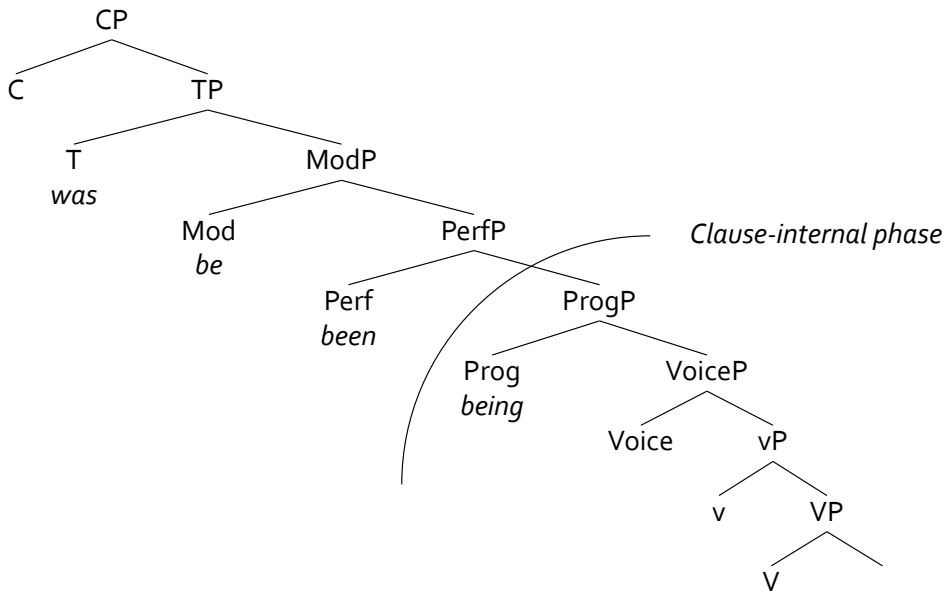
(8) a. The man being arrested for talking in voodoo is none other than Dany Jaspers.
b. *The man been arrested for talking in voodoo was none other than Dany Jaspers.

Harwood (2017) therefore claims that RRCs must target the same unit of structure as VPE, VPF and there-existentials, namely ProgP, i.e. the clause-internal phase.

2.5 Intermediate summary

By now you are all no doubt utterly convinced by this compelling data that the clause-internal phase in Standard English extends as far as ProgP (and anyone who says otherwise is just a big stupid spoil sport), as represented below:

(9)



However, as earth-shattering as this claim is, a number of issues arise when we consider exactly how such a proposal should be formalised, which we will cover in the next section.

3 Formalisation Issues

Though empirically appealing, Aelbrecht & Harwood's proposal sits at odds with our current theoretical understanding of phases (and ellipsis) in several important ways. We outline these below.

3.1 What happens in the absence of ProgP?

Unlike vP (which projected the clause-internal phase in the original instantiation of phase theory), Aelbrecht & Harwood do not assume that ProgP is always present in the derivation. That is, they assume What You See Is What You Get (WYSIWYG): when progressive aspect is absent from the derivation, the projection associated with it, i.e., ProgP, is absent from the underlying structure. So if ProgP usually projects the clause-internal phase, what happens to the phase in its absence? To answer this Aelbrecht & Harwood adopt the dynamic phases

approach (Wurmbrand, 2013; Bošković, 2014), which claims that phases are not rigid and absolute, rather, the identity of the phase boundary can vary depending on what material is present in the derivation. Concretely, it is claimed that the highest projection within a given domain projects the phase boundary, irrespective of what that projection is. Wurmbrand (2013); Harwood (2015); Ramchand & Svenonius (2014); Aelbrecht & Harwood (2015) claim ProgP is part of the same domain as VoiceP, vP and VP, and projects the phase of this domain when it is present in the derivation, since it serves as the highest projection. In the absence of the progressive aspectual layer, however, Voice acts as the highest projection and so projects the phase boundary in that instance. And in the absence of VoiceP it falls to good old vP to project the phase boundary.

This solution, however, seems rather cumbersome, adding an extra layer of complexity to the system that might not actually be needed. Moreover, it is rather unclear what the identity of the domain is that ProgP, VoiceP, vP and VP are a part of. Why should these projections be grouped together into a single domain to the exclusion of PerfP? How exactly is this domain defined? The level of precision, it seems, needs to be raised if this claim is to pass muster.

3.2 The phase or the phasal complement?

Given that VPE targets the phasal complement (i.e., the spell-out domain) and not the entire phase, the data in (1) imply that ProgP does not actually project the phase (with Prog° as the phase head and Spec-ProgP as the phase edge). Rather it is contained within the phasal-complement of the clause-internal phase. However, the VPF, existential and RRC data detailed in (4)-(8) imply that ProgP actually projects the phase itself, since these phenomena have all been argued to target the entire phase. The data therefore lead to subtly different conclusions.

To solve this, Aelbrecht (2016) and Harwood (2015) claim, following Holmberg (2001); Fox & Pesetsky (2004); Bošković (2014), that ellipsis actually targets entire phases rather than just the spell-out domain. This implies, however, that entire phases are spelled-out, and that the phase-edge/spell-out domain distinction is no longer needed. However, under the original formalisation of phase theory, the phase-edge was posited in order to provide an escape hatch for movement out of the phase. By abandoning the phase-edge/spell-out domain distinction, we no longer have a means of moving items out of the phase. Once again, Aelbrecht & Harwood's solution to the problem seems to raise more issues than it solves (nice going guys).

3.3 How is ellipsis even licensed?

VPE, like all other types of ellipsis, needs to be licensed. There are various proposals for this licensing mechanism, though for the sake of argument (and for other obvious reasons) we will adopt Aelbrecht's (2010) approach, which is itself a modification of Merchant (2001).

Essentially Aelbrecht (2010) claims that there is an E feature on Voice° which agrees with T° and elides everything in Voice's complement (i.e., vP). This works fine under a typically minimalist understanding of VPE in which only vP is targeted. But following the revelation that as much as ProgP is targeted by VPE, we'd need to set our E feature somewhat higher. The most obvious choice is Perf°, just above ProgP, but, since we adopt WYSIWYG, Perf° is not always present, in which case Mod° would have to adopt the E feature. Similarly, in the absence of both PerfP and ModP, the E feature would have to be located on T° itself. Similar to the problem outlined in 3.1, this situation is less than ideal since we have an E feature that can appear on a variety of inflectional heads depending on how much or how little material is present in the derivation, and no formal way of determining which head it appears on. It's certainly a pickle.

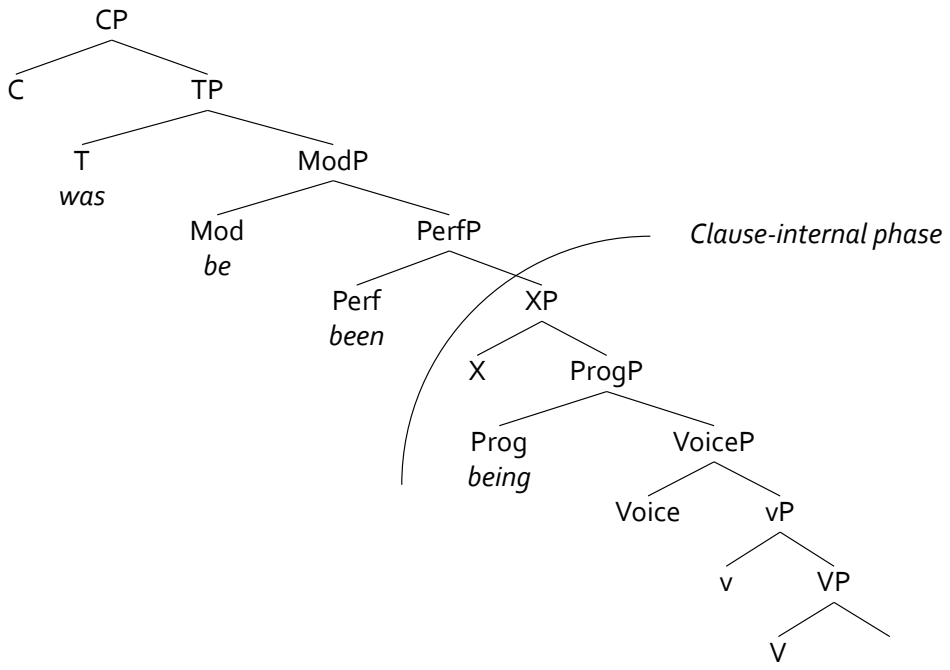
3.4 Intermediate summary

The above three sub-sections have outlined three of the most pressing issues that arise with Aelbrecht & Harwood's pathetic attempt at formalising their proposal. From where we're standing right now, things are certainly looking grim. However, as the next section will show, all is not lost.

4 Dany to the Rescue

Just when you thought that we'd never get out of this mess, in swoops Dany to save the day. During one of the many CBS's (CRISSP Brainstorm Session, for the uninitiated), Dany suggested to Harwood a rather simple, elegant, and surprisingly non-mystical solution to the problems outlined above (also thanks to Jeroen for making more or less the same recommendation on a separate occasion), namely why not posit an additional projection, which we'll call XP for now (we'll come back to the exact identity of this projection at the end of this section), that sits between PerfP and ProgP, and always projects the clause-internal phase?

(10)



This proposal allows us to maintain that the clause-internal phase in English extends beyond vP so as to include VoiceP and ProgP (and exclude PerfP), whilst also solving the three issues outlined in the previous section.[2] For the sake of clarity, we'll go through each of these in detail.

4.1 What happens in the absence of ProgP?

It now no longer matters whether ProgP, or even VoiceP for that matter, is present or not. XP is always present in the derivation and so will always project the clause-internal phase. There is no longer a need to appeal to dynamic phases. We can just utilise the traditional approach to phase theory outlined in Chomsky (2000, 2001), with the only difference being that XP, rather than vP, projects the clause-internal phase.

[2] See also Aelbrecht (2016) for a surprisingly similar proposal. So similar in fact that we're bordering on accidental plagiarism.

4.2 The phase or the phasal complement?

Since X° always acts as the phase head (and Spec-XP as the phase edge), ProgP will always be situated within the phasal complement/spell-out domain of the phase. This means that ProgP can be elided under VPE without us having to stipulate that VPE targets the entire phase rather than just the spell-out domain. In the case of VPF, *there*-existentials and RRCs, we can still work under the assumption that these phenomena target the entire phase, which is now XP rather than ProgP. But because XP has no real morphological exponence, we will not really see the effect of these phenomena targeting XP rather than ProgP. This means that we are able to maintain the phase-edge/spell-out domain distinction that was so crucial to the initial formalisation of phase theory.

4.3 How is ellipsis even licensed?

Simple this one: we postulate that the E feature, which must agree with T°, always occurs on X°, the phase head. It will therefore license ellipsis of its complement, i.e., the spell-out domain, a.k.a ProgP. Everybody wins!

4.4 The identity of XP

Having outlined the advantages of positing an XP between PerfP and ProgP which always projects the clause-internal phase, we now set about trying to identify the nature of XP. Whilst we do not offer a conclusive answer, we offer three potential candidates and leave it to the reader to decide for themselves (a bit like those choose your own adventure novels).

4.4.1 FocP

Belletti & Shlonsky (1995) argue for the existence of a low focus position situated somewhere within the aspectual hierarchy. We know this position to be external to the ellipsis site of VPE since it is the position that elements bearing contrastive focus raise to when escaping VPE in pseudogapping constructions (Jayaseelan, 1990) (see the b example for a lovely little schematic):

(11) a. Some were buying Dany roses, and others were lilies.
b. Some were buying Dany roses, and others were [$_{\text{FocP}}$ lilies$_i$ ~~[$_{\text{ProgP}}$ buying Dany t$_i$ …]~~].

It seems plausible therefore that the XP that projects our clause-internal phase could in fact be this low FocP. Though the question arises, if there is no contrastive focus, should FocP still project?

4.4.2 PredP

Bowers (2001) and Aelbrecht (2016) posit a PredP just beyond vP to demarcate the edge of the predicational domain. It is entirely possible that this PredP actually sits in the place of our XP, sandwiched between PerfP and ProgP rather than just beyond vP. While it is not entirely clear to us what is meant by the term predicational domain, the more predicate-like nature of progressive aspect is evidenced by the fact that it can be co-ordinated with nominal, adjectival and prepositional predicates (Heycock, 2011):

(12) Dany is tired and suffering from a cold and (thus) [a good candidate for a miracle cure/in a terrible mood].

Therefore PredP could potentially project the clause-internal phase. It is also more likely to consistently project in every derivation, unlike FocP. Though unlike our other two candidates, its existence is the most questionable.

4.4.3 vP

The third and final possibility is that XP is actually vP proper. That is, rather than being merged just above VP, vP actually sits between PerfP and ProgP. The obvious objection to this is that vP serves to introduce the agentive subject and therefore should be merged low, just above VP.

However, empirically there is no data to suggest that agentive subjects are merged below ProgP in Standard English. The most commonly accepted diagnostics are associates of *there*-existentials and floating quantifiers (Sportiche, 1988), which have been argued to represent the base-positions of agentive subjects. As the data below show, though, neither of these can follow *being*, they must always precede it:

(13) a. There was a gang of smurfs being really loud and annoying last night.
b. *There was being a gang of smurfs really loud and annoying last night.

(14) a. Dany and his gang of revellers were all being really loud and annoying.

b. *Dany and his gang of revellers were being all really loud and annoying.

The evidence thus points towards vP actually being merged just above ProgP rather than just above VP. Therefore vP remains a viable candidate for XP.

5 Conclusion

To conclude, we began this paper with Aelbrecht & Harwood's claim that the clause-internal phase in English comprises not only vP and VP, but also VoiceP and ProgP, but excludes PerfP and all higher projections. To formalise this Aelbrecht & Harwood claimed ProgP projects the clause-internal phase. This, however, lead to a number of problems, namely what happens to the phase in the absence of progressive aspect, exactly what is spelled out under this approach, and how ellipsis should be licensed. These issues were solved by abandoning the dynamic phase approach that Aelbrecht & Harwood subscribed to in favour of positing an XP that exists between PerfP and ProgP and which always projects the clause-internal phase. This solved the aforementioned problems and allowed us to return to a more traditional understanding of phases as proposed in Chomsky (2000, 2001). Finally, we offered three potential possibilities for the identity of XP, namely FocP, PredP or vP.

To finish, we would like to shoot ourselves in the foot by highlighting one gaping empirical flaw in the entire argument. Recall from section 2.3 that we assume, like many who have gone before us, that associates in *there*-existentials occupy the clause-internal phase edge. Recall also from section 4.2 that we assume that ellipsis targets the spell-out domain of the clause. This implies, since associates in *there*-existentials occupy the phase edge, that they should escape ellipsis. Sadly this is not the case: associates must be elided under VPE:

(15) a. Dany said that there weren't many kites flying for his birthday, but in fact there were ~~many kites flying for his birthday~~.
b. *Dany said that there weren't many kites flying for his birthday, but in fact there were many kites ~~flying for his birthday~~.

Damn. Close but no cigar. We'd hoped to be able to tie up all loose ends, but it seems we're going to have to leave that one for future generations.

Anyway Dany, there we go, our last ever contribution to the field of linguistics. Hope you enjoyed it. And thanks a lot for the suggestion, and also for the

many years of linguistic fun we've had together. Studying linguistics was always a touch more fun with you around. Happy birthday Mr. President.

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