It could have been elided, but it wasn't: Optional auxiliary deletion under VP ellipsis
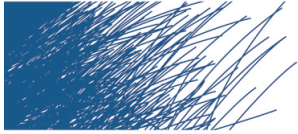
Lobke Aelbrecht (GIST/Ghent University)

Joint work with Will Harwood
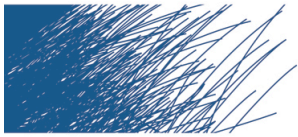Presentation University College London
30 January 2013

Overview

Introduction: the pattern (1)

- VP ellipsis (VPE) = non-pronunciation of the verb phrase

(1)   Betsy was hassled by the police, and Peter was, too.

        = … and Peter was [hassled by the police], too.

→ Finite auxiliary remains overt.

→ (English) main verb is always deleted, even when finite.

(2)   Betsy ate an apple, and Peter **did**, too.

        = … and Peter [ate an apple], too.
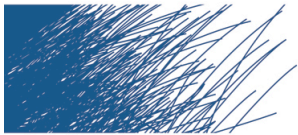
Introduction: the pattern (2)
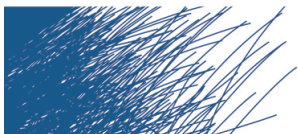
→ Standardly:

Under a deletion approach to ellipsis, VPE is analysed as PF deletion of VP, or more recently vP, licensed by the auxiliary or the T head (Johnson 2001, 2004; Merchant 2001; Gengel 2007 and many others)

```
            TP
         ╱      ╲
      DP          T'                    PF deletion
     Peter    T        vP
             was     hassled by the police
```
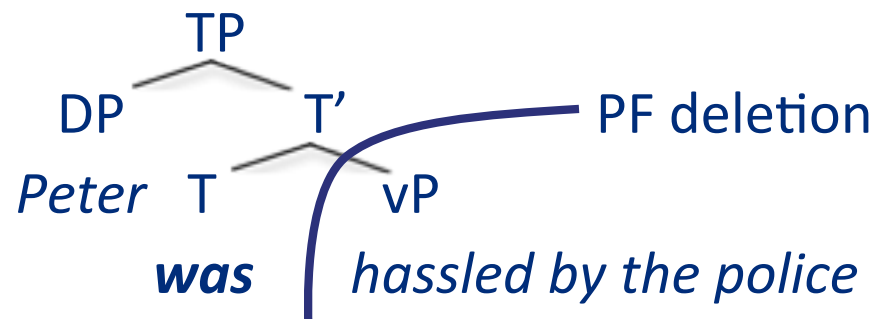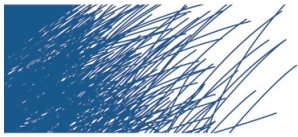
Introduction: the pattern (3)

Main research question in this talk:

What happens in sentences with more than one auxiliary?

(3)   Betsy must have been being hassled.

= finite modal – perfect *HAVE* – progressive *BE* – passive *BE* – V

Introduction: the pattern (4)

Answer: More than just VP/vP is targeted by VPE (Akmajian & Wasow 1975, Sag 1976).

(4) Betsy must have been being hassled by the police, and…

    a. * Peter must ~~have been being~~ ~~hassled by the police~~, too.

    b.   Peter must <u>have</u> ~~been being~~ ~~hassled by the police~~, too.

    c.   Peter must <u>have</u> <u>been</u> ~~being~~ ~~hassled by the police~~, too.

    d.* Peter must <u>have</u> <u>been</u> <u>being</u> ~~hassled by the police~~,too.

Introduction: the pattern (5)

Akmajian & Wasow (1975), Sag (1976):

- Lexical verb = obligatorily elided under VPE
- *Being* = obligatorily elided under VPE
- *Have*, modals and finite auxiliaries = never elided under VPE
- *Be/been* = optionally elided under VPE

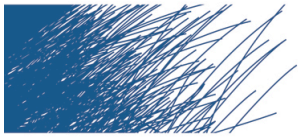|	Modal/finite aux	Have	Be	Been	Being	Lexical V
Elided	*	*	(✓)	(✓)	✓	✓

→ Aim: explore and explain this observation
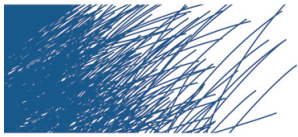
Introduction: the pattern (6)

Main claims of this talk:

- VP Ellipsis targets the progressive aspectual layer (when it is present in the derivation).

- Optional auxiliary ellipsis = optional raising of auxiliaries out of the ellipsis site + rescue by PF deletion of the non-raised auxiliaries
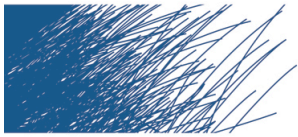
- VPE = predicate ellipsis

Overview

Complications for the pattern (1)

Two generalisations about this pattern have been challenged:

A. *Have* is never elided?
B. *Being* is always elided?

→ Let us look at these objections to the original pattern.

Complications for the pattern: *have* (2)

A. *Have* is never elided?

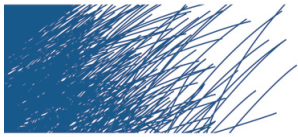Akmajian, Steele & Wasow (1979), Thoms (2011): *have* can be elided!

(5)   John couldn't have studied Spanish, but Bill could.

(Akmajian, Steele & Wasow 1979:15, example 48)

! Wurmbrand (2012): the acceptability of (5) is due to the available mismatch reading in which perfect aspect is altogether absent from the elided constituent:
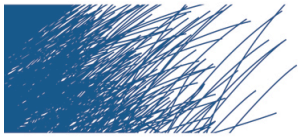
(6) John couldn't have studied Spanish, but Bill could [~~study Spanish~~].

Complications for the pattern: *have* (3)

Can we find contexts that show whether *have* can genuinely be elided or not?

- Ellipsis and fixed expressions
- Ellipsis and identity requirements

Complications for the pattern: *have* (4)

Ellipsis and fixed expressions

Certain expressions are dependent on perfect aspect:

(7)　　a.　　We have been to Rome.

　　　　b.　*　We are being to Rome.

　　　　c.　*　We will be to Rome.

　　　　d.　*　We are to Rome.

(8)　　a.　　Sarah has been around the block a few times.

　　　　b.　*　Sarah is being around the block a few times.

　　　　c.　*　Sarah will be around the block a few times.

　　　　d.　*　Sarah was around the block a few times.

Complications for the pattern: *have* (5)

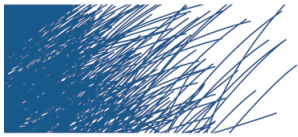If VPE is applied to these expressions, no mismatch interpretation without the perfect aspect will be available.

→ This context shows whether perfect *have* can be elided.

Result: 80% of our (British English) informants rejected ellipsis of *have* in these cases.

(9) * This time next year Jon will have been to Rome, and I will ~~have been to Rome~~, as well.

(10) * I thought Sarah might have been around the block a few times, and indeed she might ~~have been around the block a few times~~.
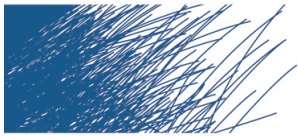
Complications for the pattern: *have* (6)

Ellipsis and identity requirements

Auxiliaries can only be elided if they have an identical antecedent

      = Syntactic Identity condition; see Lasnik (1995), Warner (1986)

(11) a.   Sue has **been** eaten by cannibals, and Rob might *(**be**), too.

     b.   First Sue will **be** eaten by cannibals, and then Rob will (**be**).

     c.   Sue **was** eaten by cannibals after Rob had *(**been**).

     d.   Sue has **been** eaten by cannibals, and Rob has (**been**), too.

Complications for the pattern: *have* (7)

In a sentence with *been* in the antecedent clause, VPE can only elide *been* if the ellipsis clause contains perfect aspect, otherwise *been* would not be identical in form to its antecedent.

→ This context shows whether *have* can be elided or not.

Result: Our informants unanymously rejected deletion of *have*. (Contra Thoms 2011)
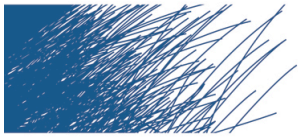
(12) a. John might have **been** fired, and Ted might have (**been**) ~~fired~~, too.

b.* John might have **been** fired, and Ted might, too.

= Ted might ~~have~~ **been** ~~fired~~, too.

= Ted might **be** ~~fired~~, too.

→ Although there still is some discussion, and there might be some dialectal variation involved, we take ellipsis of *have* to be impossible.
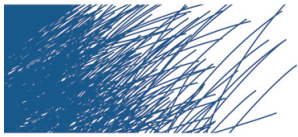
Complications for the pattern: *being* (8)

B. *Being* is always elided?

Quirk et al (1985:875) and Thoms (2012): ellipsis of *being* is not categorial.

(13) a. Remember, always be respectful and courteous, even if the officer isn't **being**.

    b. Otherwise you may have some integrity problems because the key that apparently should be enforced actually isn't **being**.

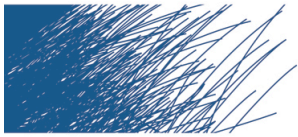→ Is *being* only optionally elided, on a par with *be* and *been*?

No:

Whilst *be* and *been* are optionally elided…

(14) a.   Ted should be home, and Barney should <u>be</u> ~~home~~, too.

b.   Ted should be home, and Barney should ~~be home~~, too.

(15) a.   Robin has been fired, and Barney has <u>been</u> ~~fired~~, too.

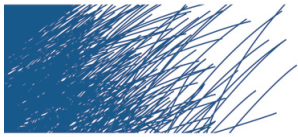b.   Robin has been fired, and Barney has ~~been fired~~, too.

Complications for the pattern: *being* (10)

Being is always elided, ***unless*** *being* is absent from the antecedent:

(16)   Bill was punished this morning, and now Ted is **being** ~~punished~~.

(17)   Bill was **being** punished this morning, and now Ted is (***being***) ~~punished~~.

→ *Being* only survives when it is not recoverable from the antecedent.
If *being* is recoverable, it is obligatorily elided, unlike *be(en)*.
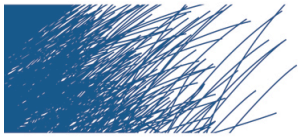(We come back to this later!)

Complications for the pattern (11)

Generally, Sag's original (1976) pattern still holds:

- Lexical verb = obligatorily elided under VPE
- *Being* = obligatorily elided under VPE (contrast cases: see later!)
- *Have*, modals and finite auxiliaries = never elided under VPE

  have might be subject to dialectal variation, but generally not for the informants we have consulted.

- *Be/been* = optionally elided under VPE

	Modal/ finite aux	Have	Be	Been	Being	Lexical V
Elided	*	*	(✓)	(✓)	✓	✓

→ This is the pattern we will try to capture in our analysis.

Overview

Preliminaries: The verbal structure (1)

Bošković (2012), Cinque (1999), Harwood (2011):
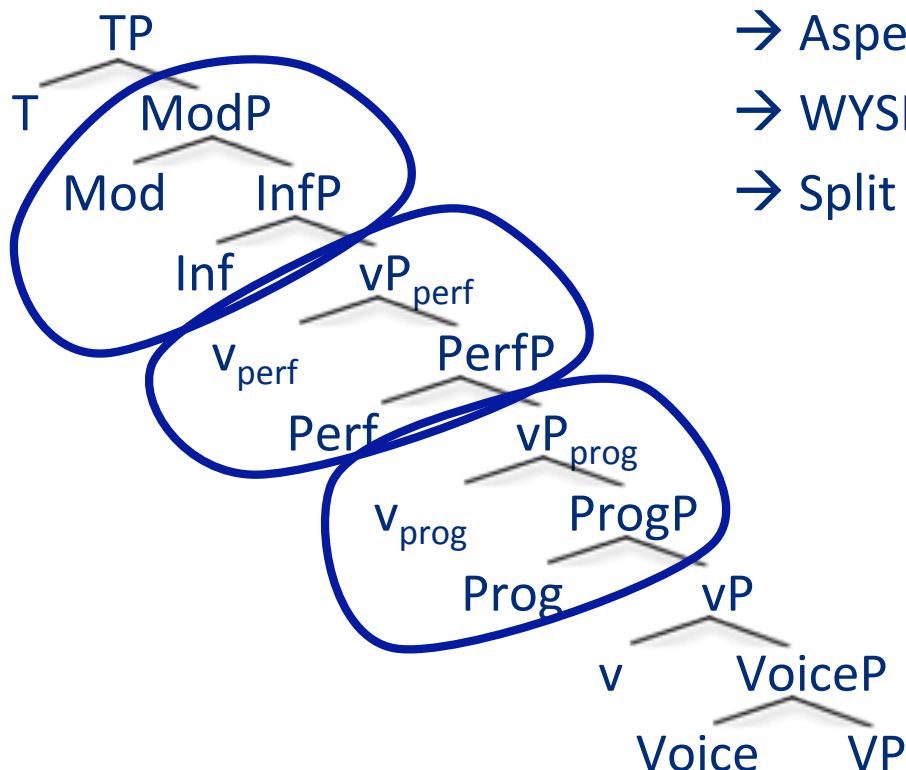
→ Aspectual layer + vP shell with auxiliary

→ WYSIWYG approach

→ Split layers = necessary for auxiliary raising

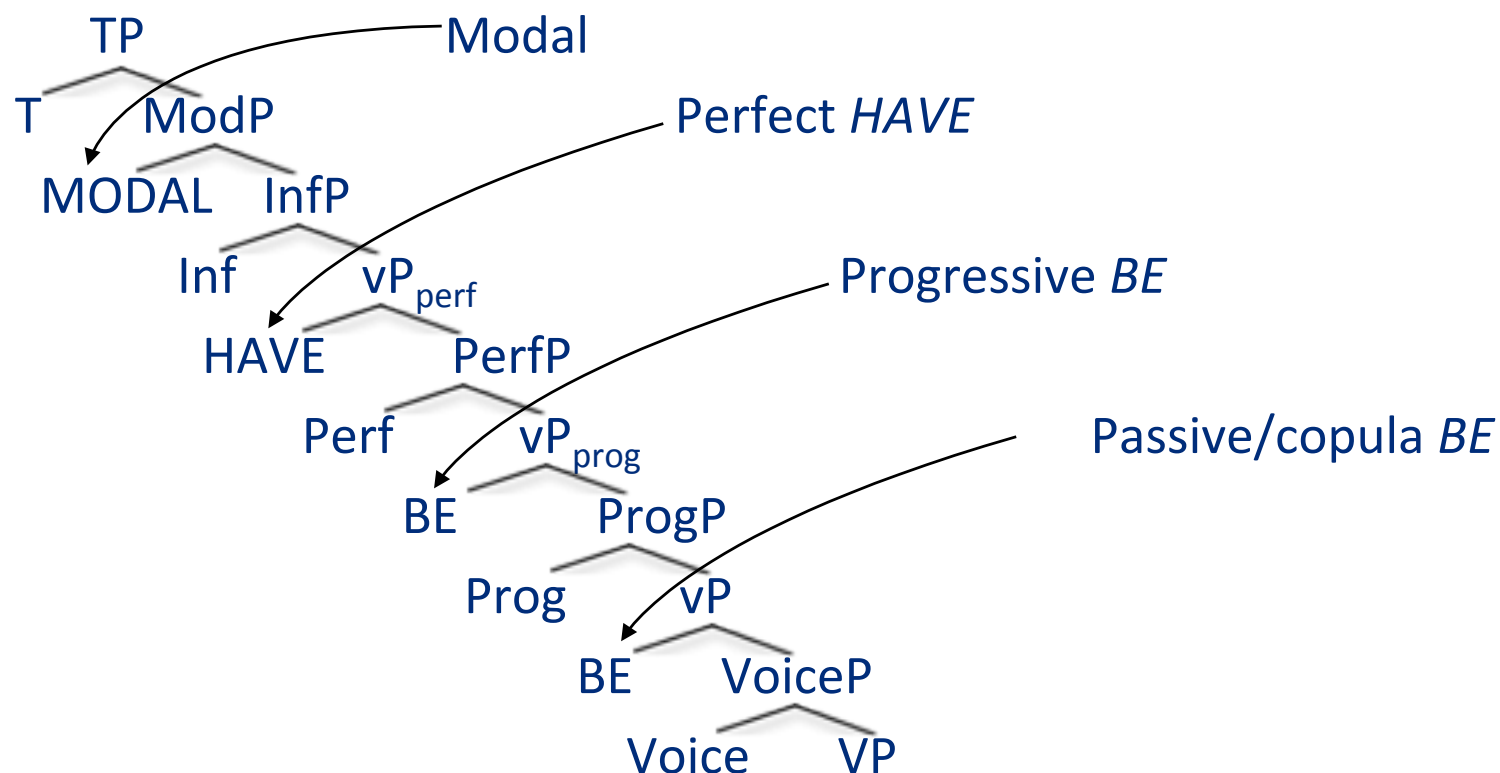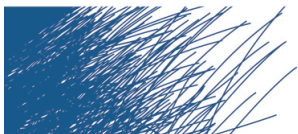# Preliminaries: The verbal structure (2)

```
        TP                        Modal
    T       ModP
         MODAL    InfP                  Perfect HAVE
              Inf      vP_perf
                   HAVE      PerfP              Progressive BE
                        Perf     vP_prog
                              BE      ProgP              Passive/copula BE
                                   Prog     vP
                                         BE      VoiceP
                                              Voice     VP
```
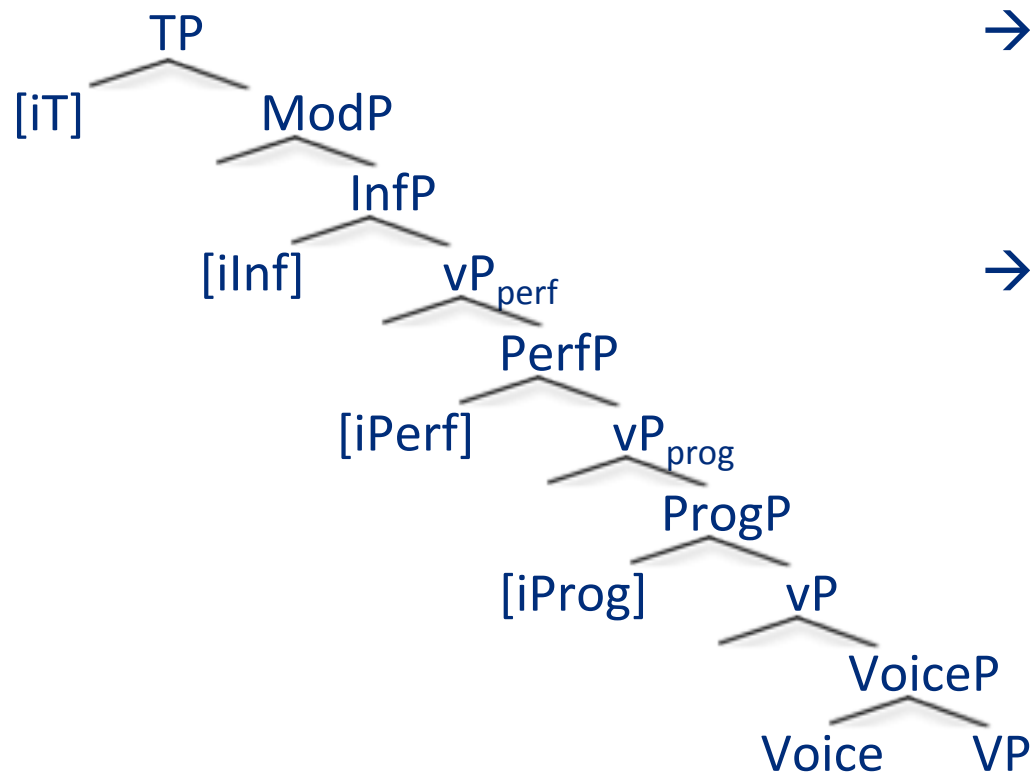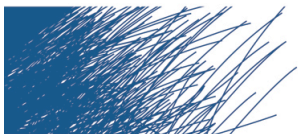
Preliminaries: The verbal structure (3)

Lasnik (1995): Auxiliary raising for feature checking

```
        TP
       /  \
    [iT]   ModP
          /  \
        InfP
       /   \
   [iInf]   vP_perf
           /    \
         PerfP
        /   \
    [iPerf]  vP_prog
            /    \
          ProgP
         /    \
     [iProg]   vP
              /   \
           VoiceP
          /      \
       Voice      VP
```
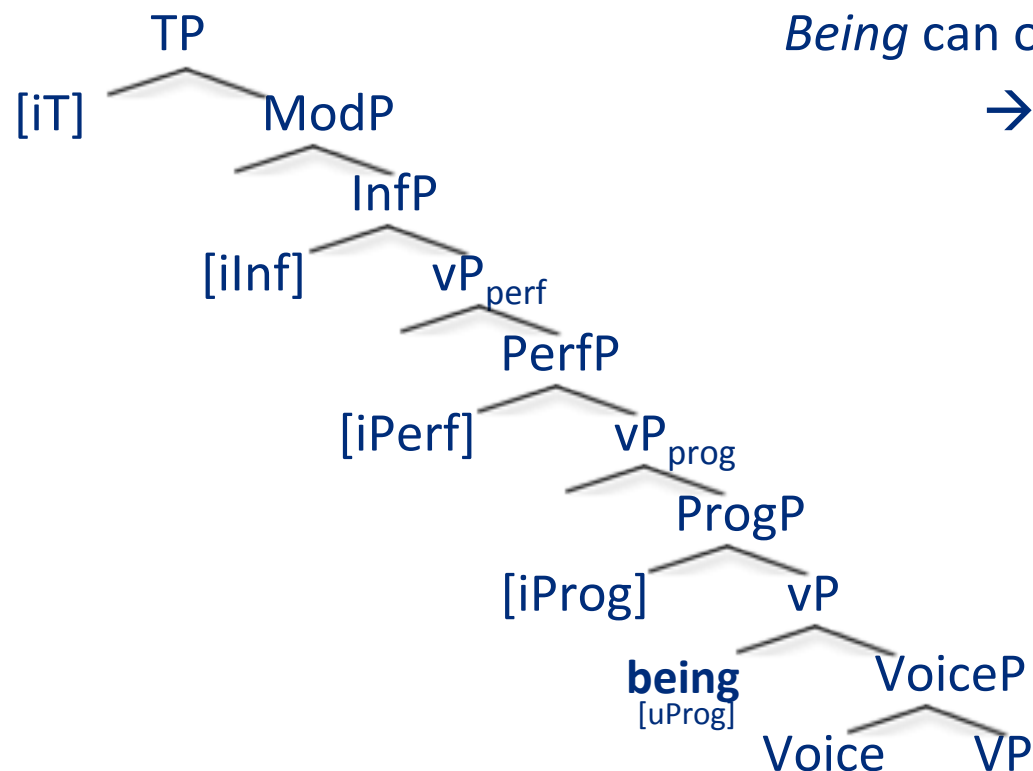
→ Each aspectual head bears an interpretable inflectional feature (Bjorkman 2012, Lasnik 1995)

→ Auxiliaries are merged inflected, but their morphological form has to be licensed by checking of a PF feature against the relevant aspectual head (Chomsky 1993, Lasnik 1995)
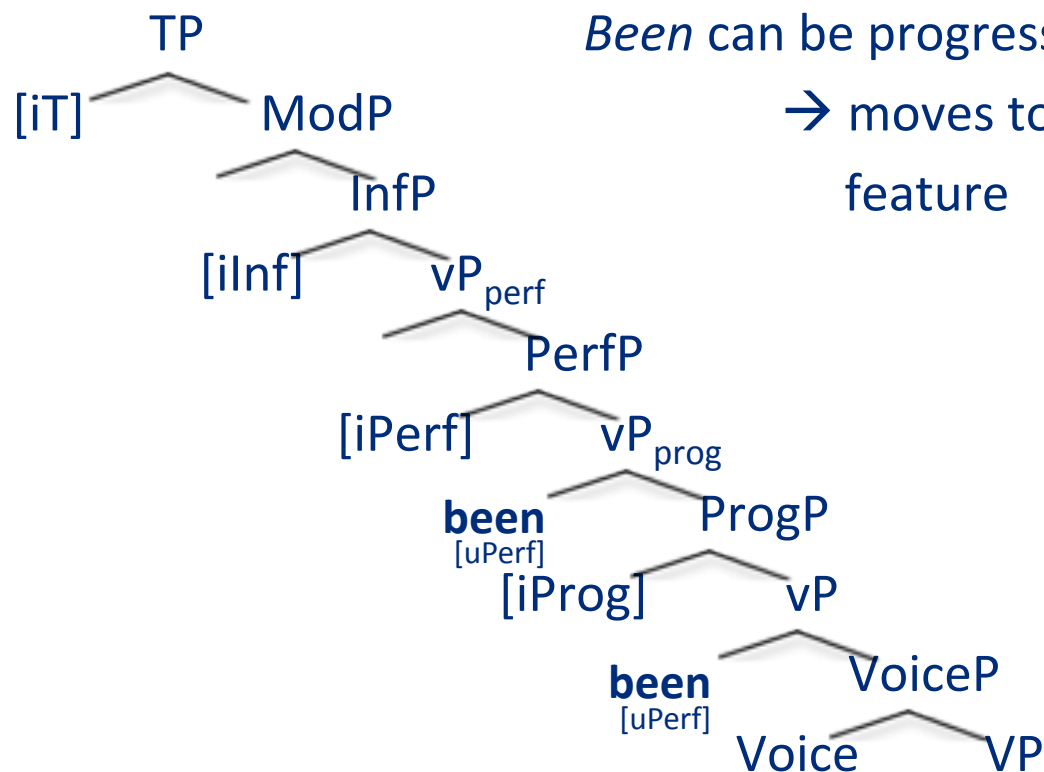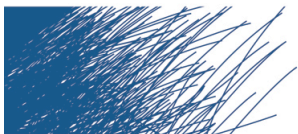
Preliminaries: The verbal structure (4)

```
        TP
       /  \
  [iT]    ModP
         /    \
      InfP
      /   \
 [iInf]   vP_perf
         /    \
       PerfP
       /    \
  [iPerf]   vP_prog
           /    \
         ProgP
         /    \
    [iProg]   vP
             /   \
         being   VoiceP
         [uProg] /    \
              Voice    VP
```

Being can only be copular or passive BE.
→ moves to Prog to check its
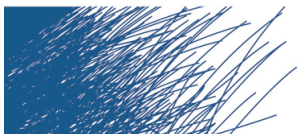 inflectional feature and license
  its morphological form
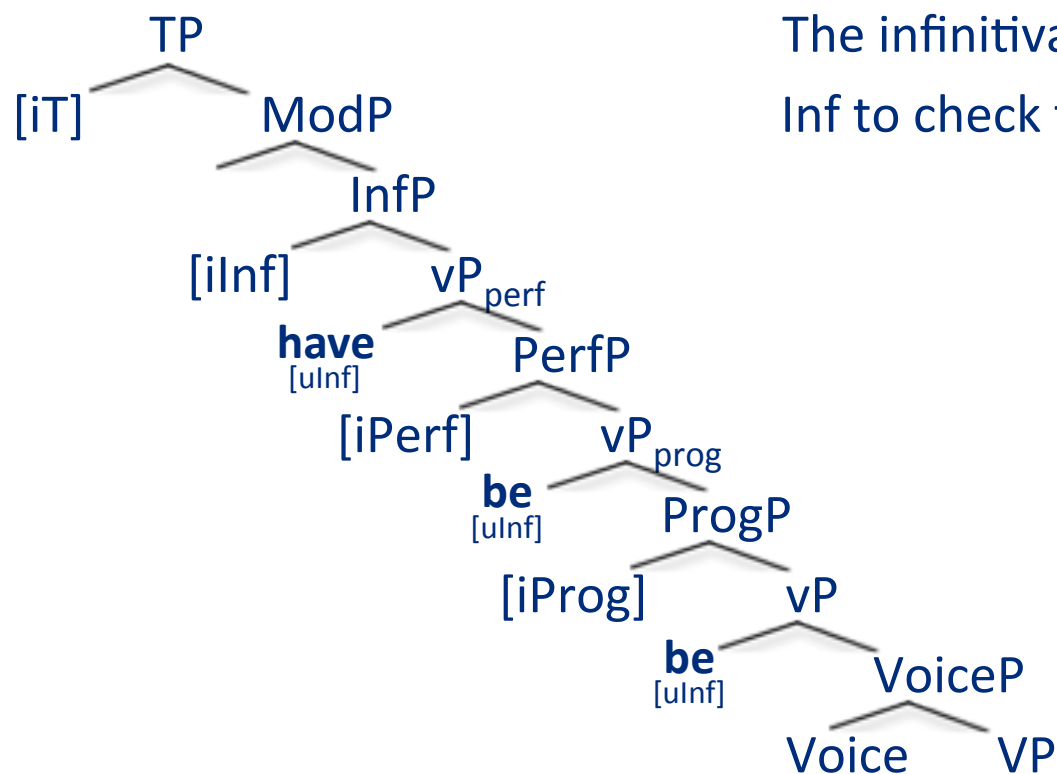
Preliminaries: The verbal structure (5)

Been can be progressive, passive or copular BE.
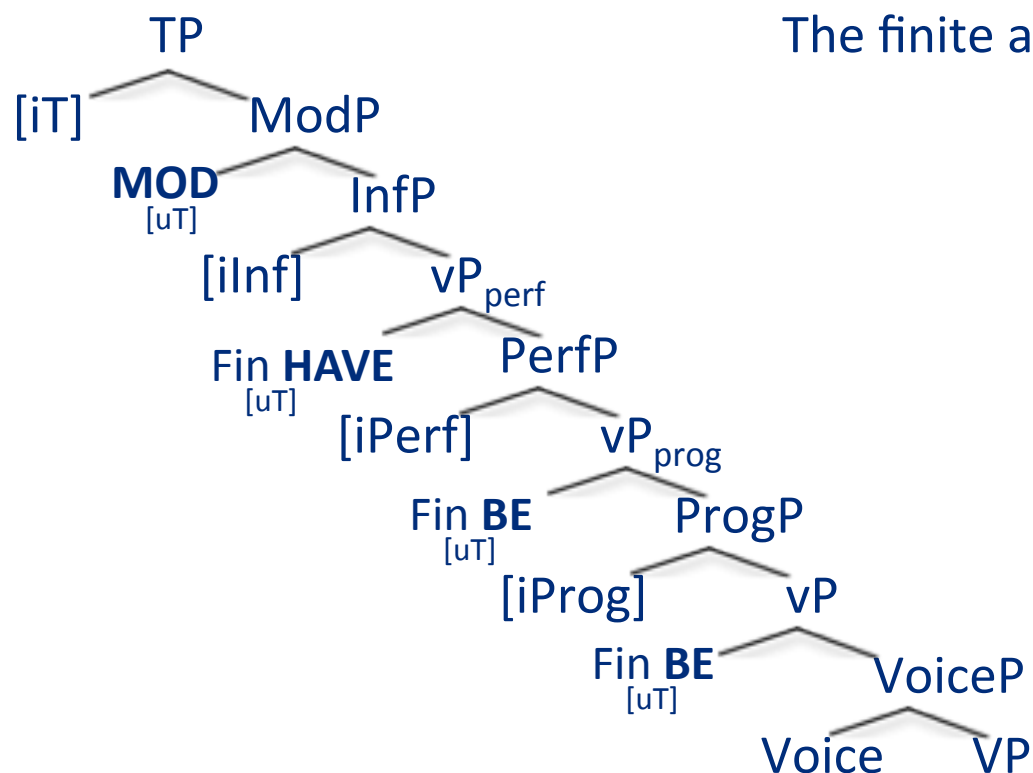
→ moves to Perf to check its inflectional feature

TP
[iT] ModP
InfP
[iInf] vP$_{perf}$
PerfP
[iPerf] vP$_{prog}$
been
[uPerf] ProgP
[iProg] vP
been
[uPerf] VoiceP
Voice VP

Preliminaries: The verbal structure (6)

The infinitival forms *have* and *be* move to Inf to check their features.

```
TP
[iT]    ModP
            InfP
        [iInf]    vP_perf
            have        PerfP
            [uInf]
                    [iPerf]    vP_prog
                        be            ProgP
                        [uInf]
                                [iProg]    vP
                                    be            VoiceP
                                    [uInf]
                                            Voice    VP
```

Preliminaries: The verbal structure (7)

The finite auxiliaries move to T.

```
TP
  /\
[iT] ModP
      /\
   MOD  InfP
   [uT]  /\
      [iInf] vP_perf
              /\
         Fin HAVE PerfP
         [uT]    /\
             [iPerf] vP_prog
                      /\
                 Fin BE ProgP
                 [uT]   /\
                    [iProg] vP
                         /\
                    Fin BE VoiceP
                    [uT]   /\
                       Voice  VP
```

Preliminaries: The verbal structure (8)

IMPORTANT: The overt movement of auxiliaries is a concern for PF.

Auxiliaries could potentially move covertly to check inflectional features at LF, BUT...
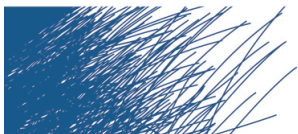
No overt movement/checking = crash at PF.

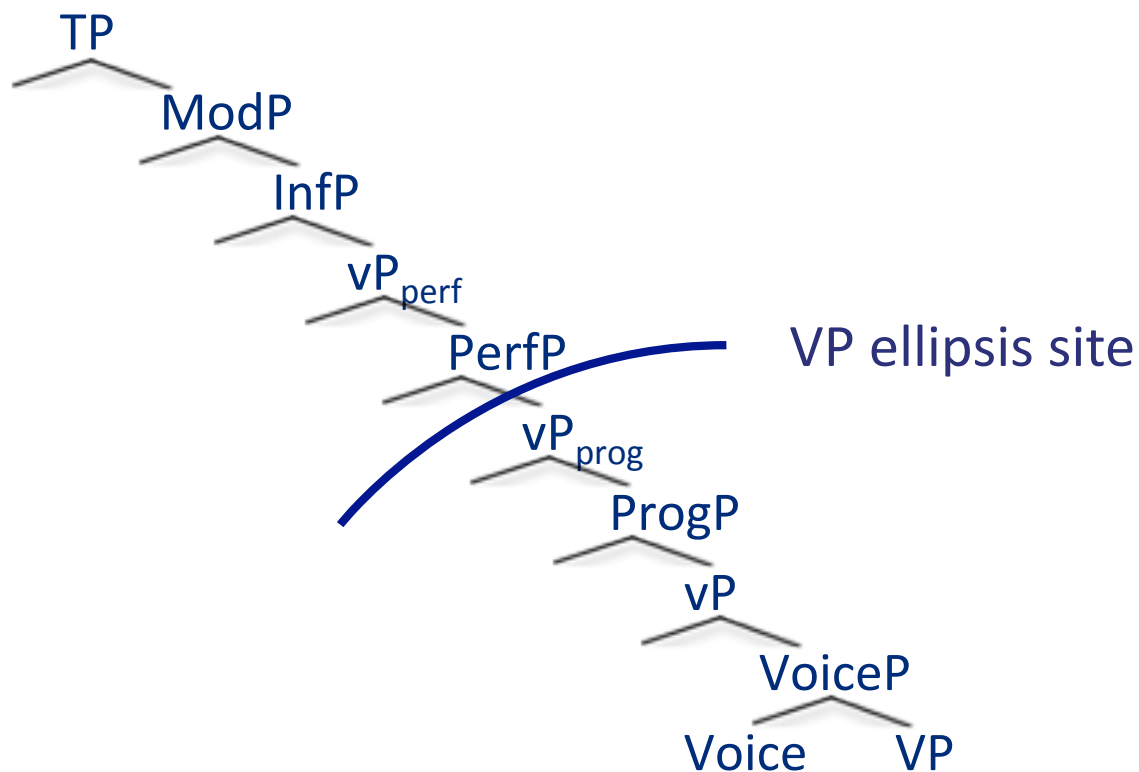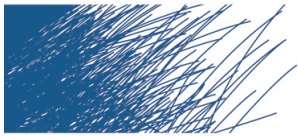(See Chomsky 1993, 1995; Lasnik 1995; Roberts 1998)

Overview

Analysis, part I: The ellipsis site (1)

Our claim: VPE elides as much as the progressive layer (vP_{prog}), if present.

TP
ModP
InfP
vP_{perf}
PerfP
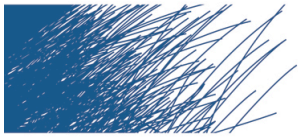VP ellipsis site
vP_{prog}
ProgP
vP
VoiceP
Voice   VP

Analysis, part I: The ellipsis site (2)

Argumentation behind this claim:

Only auxiliaries generated inside the ellipsis site can ever be elided.

→ Two basic accounts for optional auxiliary ellipsis:

1. Optional extension of ellipsis site (Akmajian, Steele & Wasow 1979, Bošković 2012)
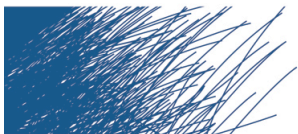2. Optional raising of auxiliaries (Sailor 2012, Thoms 2012)

Analysis, part I: The ellipsis site (3)

→ Consensus: auxiliaries can only be elided if they are at some point contained within the ellipsis site.
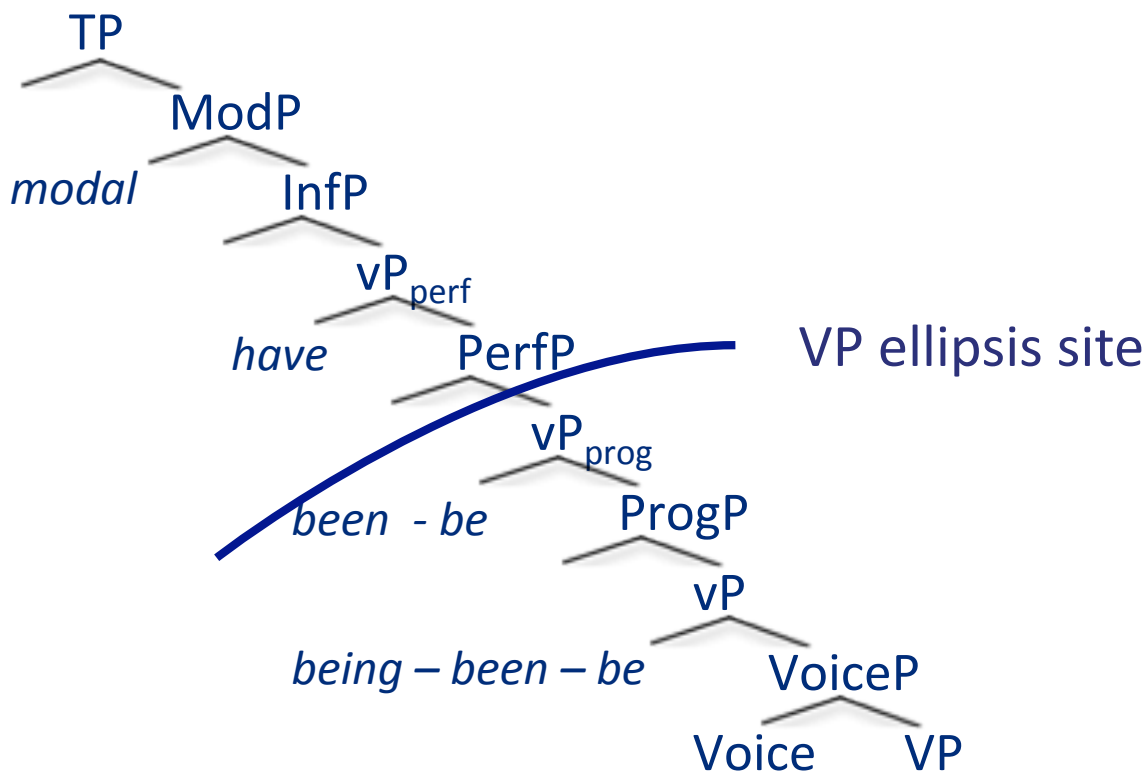
In other words: if an auxiliary can be elided, its base position needs to be included in the ellipsis site.
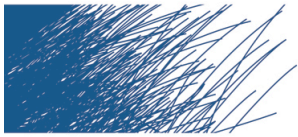
(The opposite does not necessarily hold: if an auxiliary is not elided, it can still be base-generated in the ellipsis site.)

Analysis, part I: The ellipsis site (4)

Base positions of the auxiliaries:

TP
  ModP
modal   InfP
      vP_{perf}
  have   PerfP ⟍ VP ellipsis site
          vP_{prog}
  been - be   ProgP
              vP
  being – been – be   VoiceP
                  Voice   VP

Analysis, part I: The ellipsis site (5)

We show that all auxiliaries generated within or below the progressive aspectual layer can be elided

➔ VPE targets vP$_{prog}$
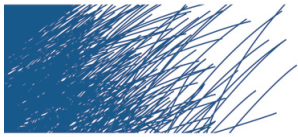
- Copula *BE* can be elided:

(18) a.   John has been in the garden, and Mary has (**been**) ~~in the garden~~, too.

     b.   John will be in the garden, and Mary will (**be**) ~~in the garden~~, too.

- Passive *BE* can be elided:

(19) a.   John has been arrested, and Mary has (**been**) ~~arrested~~, too.

     b.   John might be arrested, and Mary might (**be**) ~~arrested~~, too.
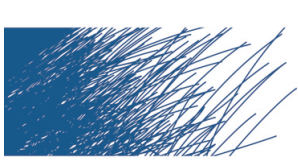
Analysis, part I: The ellipsis site (6)

- Progressive *BE* can be elided

(20) a. John may be questioning our motives, but Peter won't (**be**) ~~questioning our motives~~.

　　 b. John may have been questioning our motives, but Peter hasn't (**been**) ~~questioning our motives~~.

!! There is a mismatch interpretation available without progressive *BE*:

(21) a. …Peter won't ~~question our motives~~.

　　 b. …Peter hasn't ~~questioned our motives~~.

→ How can we be sure the progressive auxiliary is ever actually elided?
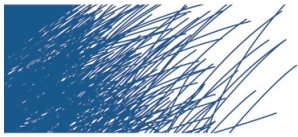
Analysis, part I: The ellipsis site (7)

Can we find contexts that show whether progressive *be* can genuinely be elided?

→ Our answer: YES, and they show it can be elided.

- Ellipsis and existential constructions
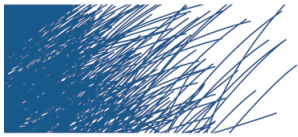- Ellipsis and idiomatic expressions

Analysis, part I: The ellipsis site (8)

Ellipsis and existential constructions

Unergative and transitive existentials depend on progressive aspect (Milsark 1974; Aissen 1975; Burzio 1986; Ward & Birner 1996; Deal 2009; Harwood 2011):

(22) a. There was a clown dancing at my birthday party.

   b. * There has a clown danced at my birthday party.

   c. * There might a clown dance at my birthday party.
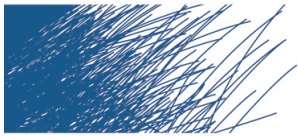
   d. * There danced a clown at my birthday party.

Analysis, part I: The ellipsis site (9)

If we apply ellipsis to these existentials, no mismatch interpretation without the progressive will be available.

Results: All our informants accepted deletion of progressive *be* in these existentials.

(23)   John said there had been a clown dancing at his birthday party, even though we all knew there hadn't (**been**) ~~a clown dancing at his birthday party~~.

(24)   John said there would be a clown dancing at his birthday party, even though we all knew there wouldn't (**be**) ~~a clown dancing at his birthday party~~.
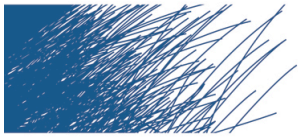
→ Progressive *be* is optionally elided.

Analysis, part I: The ellipsis site (10)

Ellipsis and idiomatic expressions

Certain idioms are dependent upon progressive aspect:

(25)a.   John is dying to meet you. = He is keen to meet you.

    b. #John has died to meet you.

    c. # John will die to meet you.

    d. #John died to meet you.

Analysis, part I: The ellipsis site (11)

If we apply ellipsis, a mismatch interpretation without the progressive would not result in an idiomatic interpretation.

Results: All our informants retained the idiomatic reading when *be/been* was not pronounced.

(26)   John has been dying to meet you, even though he says he hasn't (**been**) dying to meet you.

(27)   Q: Are you sure Bob will be dying to meet George Lucas?

    A: He most certainly will (**be**) dying to meet George Lucas.

→ Progressive *be* is optionally elided.

Analysis, part I: The ellipsis site (12)

Recapitulating:

- Passive *be/been* can be elided.

- Copula *be/been* can be elided.

- Progressive *be/been* can be elided.

- Perfect *have* is never elided.

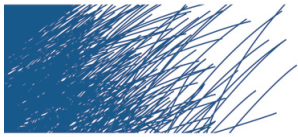- Modals and other finite auxiliaries are never elided.

→ The ellipsis site must include at least the base position of progressive *BE*.

→ Claim: VPE elides vP$_{prog}$.
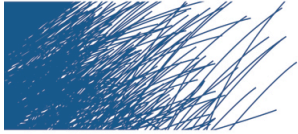
Overview

Analysis, part II: Auxiliary ellipsis (1)

Reminder

	Modal/ finite aux	Have	Be	Been	Being	Lexical V
Elided	*	*	(✓)	(✓)	✓	✓

→ Ellipsis site = vP$_{prog}$

→ Auxiliaries raise to the relevant tense/aspectual head to license their morphological form (by checking a PF feature).
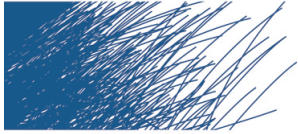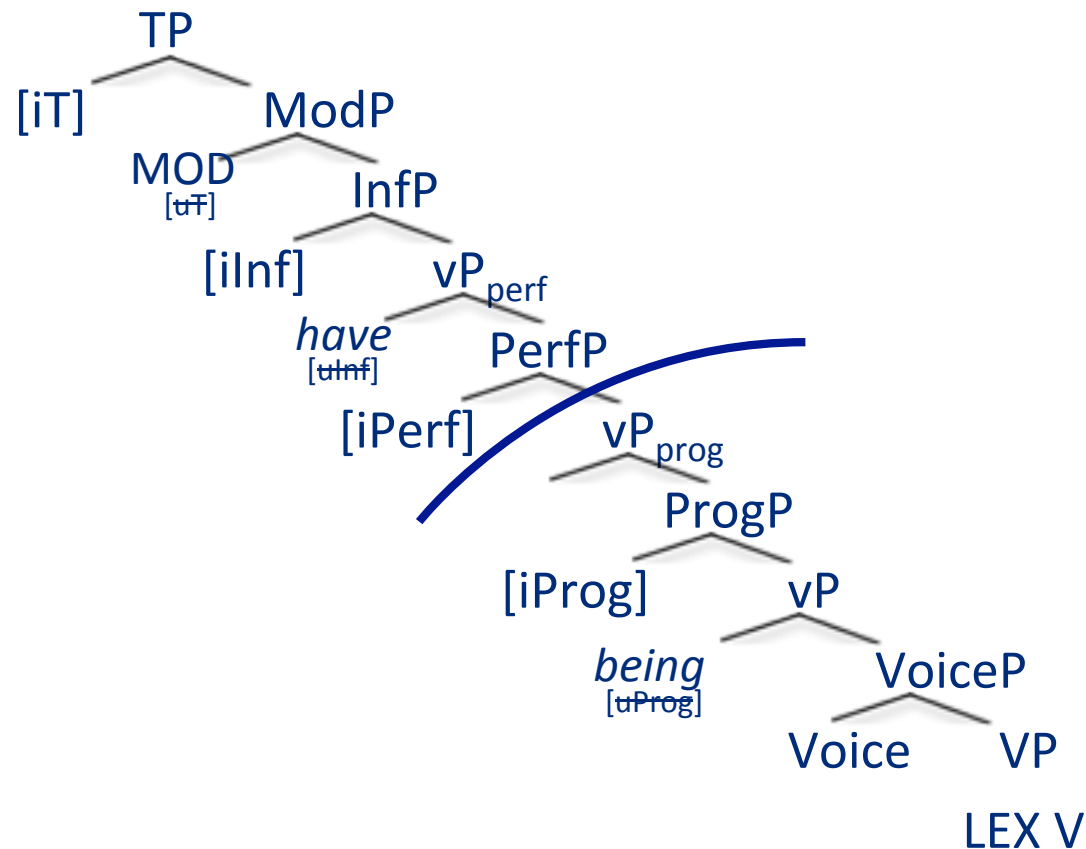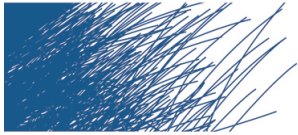
Analysis, part II: Auxiliary ellipsis (2)

A. Modals/*have* and *being*/lexical V
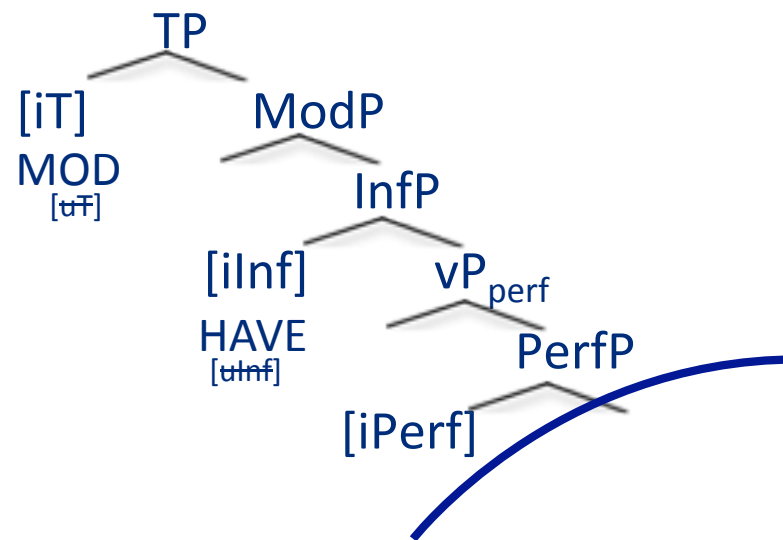B. *Be* and *been*

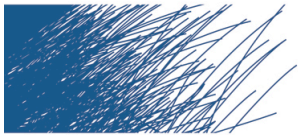# Analysis, part II: Auxiliary ellipsis (3)

A. Modals/*have* and lexical V/*being*

Analysis, part II: Auxiliary ellipsis (4)

Analysis, part II: Auxiliary ellipsis (5)

<u>Elided</u>

Lexical verb: merged inside the ellipsis site and never raises out

Being: merged inside the ellipsis site and only raises to Prog°, INSIDE the ellipsis site

<u>Not elided</u>

Have: merged outside the ellipsis site

Modals: merged outside the ellipsis site

MODAL
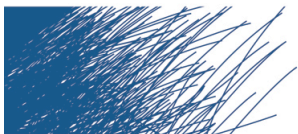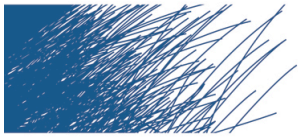
HAVE   VPE

BEING

Lex V

Analysis, part II: Auxiliary ellipsis (6)

B. *Be* and *been*

Be/been are merged inside the ellipsis site and raise out of the ellipsis site for feature checking.

▷ Two options available:

1. Raise and check = survive ellipsis
2. Remain within the ellipsis site and be deleted via ellipsis, thereby removing the problematic PF features from the derivation

Analysis, part II: Auxiliary ellipsis (7)

Non-ellipsis of *be/been*
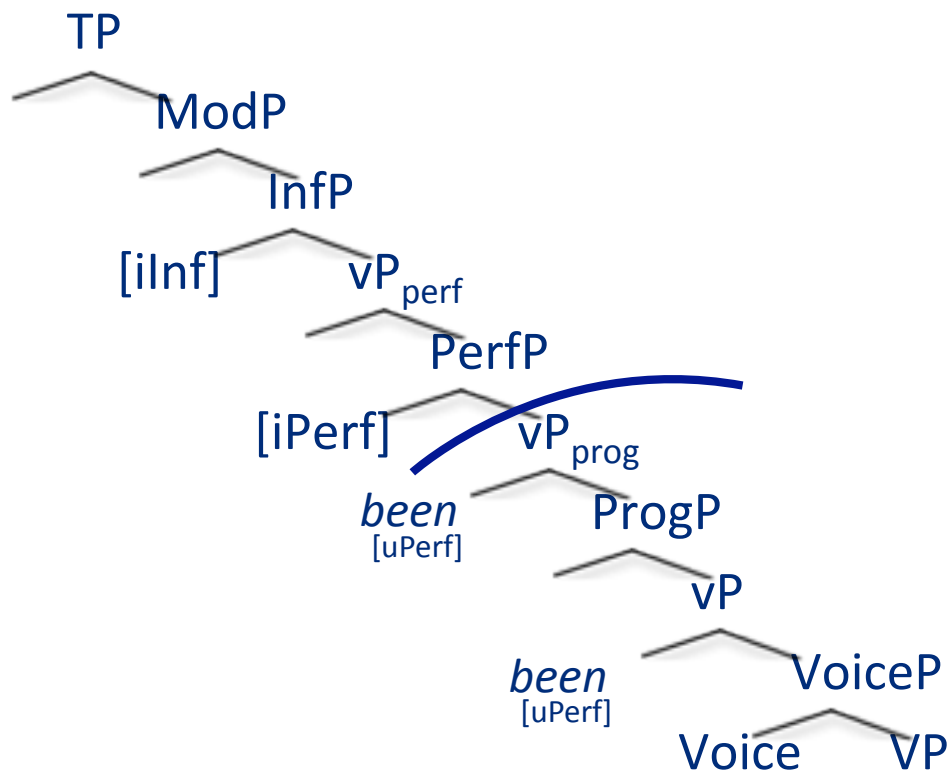
TP
  ModP
    InfP
  [iInf]   vP$_{perf}$
         PerfP
    [iPerf]   vP$_{prog}$
       been   ProgP
       [uPerf]
                 vP
            been   VoiceP
            [uPerf]
                   Voice   VP

Analysis, part II: Auxiliary ellipsis (8)

TP
ModP
InfP
[iInf] vP$_{perf}$
PerfP
[iPerf] vP$_{prog}$
be
[uInf]
ProgP
vP
be
[uInf]
VoiceP
Voice VP

Analysis, part II: Auxiliary ellipsis (9)

TP
   ModP
      InfP
[iInf]   vPperf
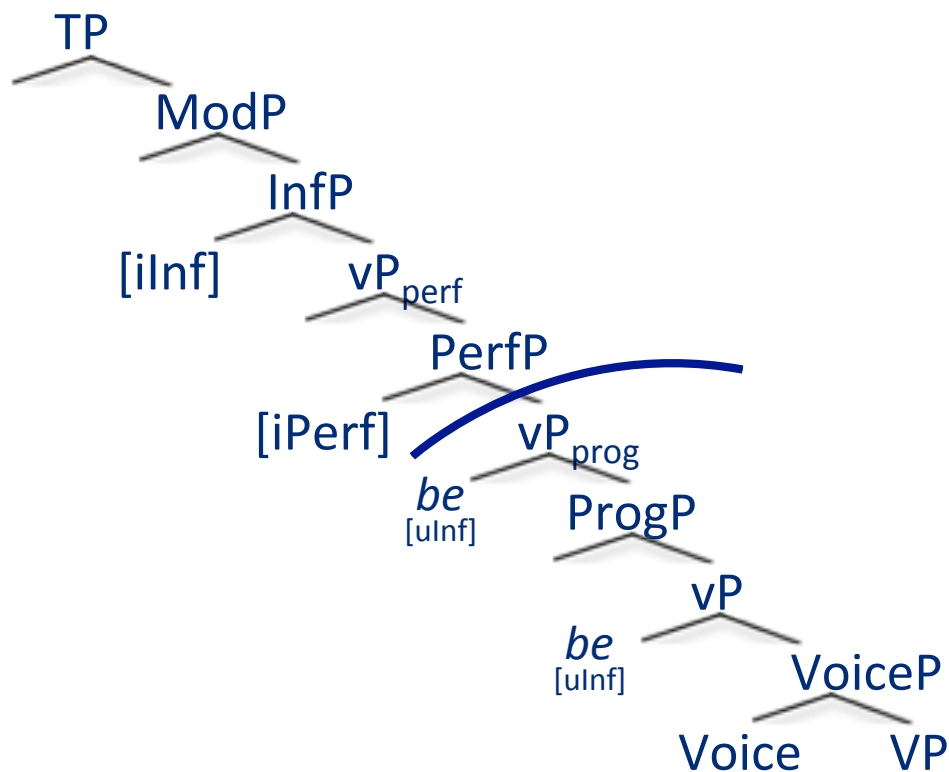*be*
[uInf]   PerfP

[iPerf]
been
[uPerf]

Analysis, part II: Auxiliary ellipsis (10)

Ellipsis of *be/been*

Analysis, part II: Auxiliary ellipsis (11)

TP
  ModP
    InfP
      [iInf] vP_perf
              PerfP
        [iPerf]
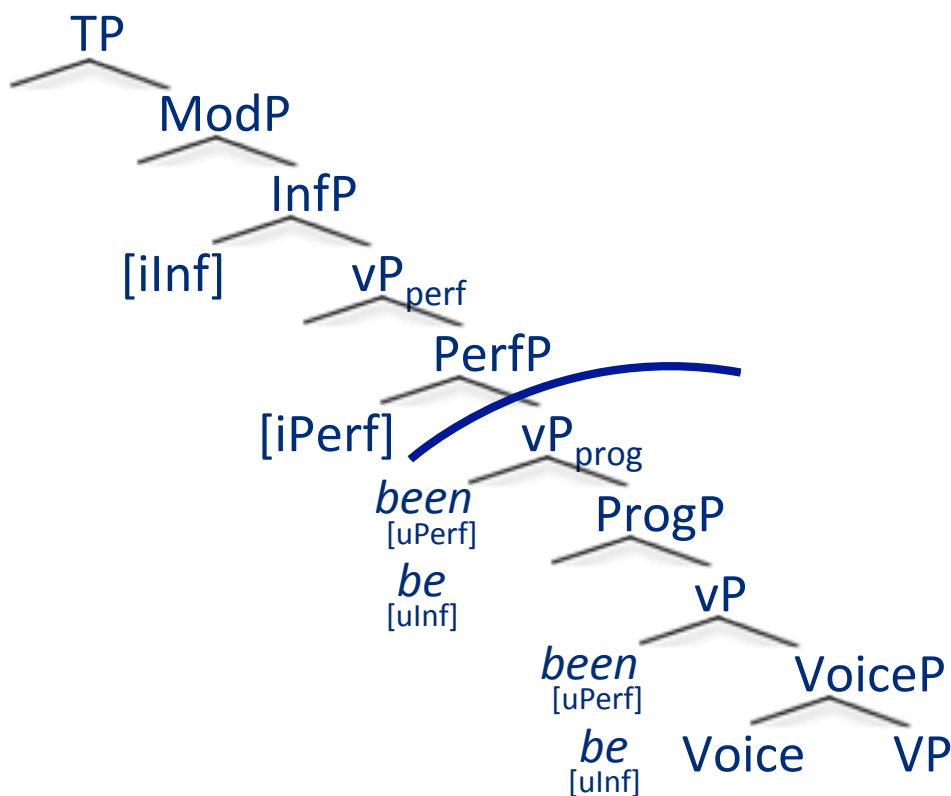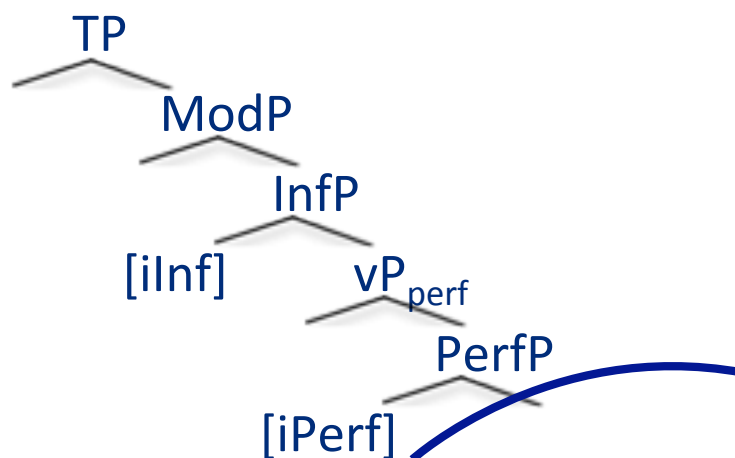
Analysis, part II: Auxiliary ellipsis (12)

- If *be/been* raise out of the ellipsis site to check their features, they survive ellipsis.

- If *be/been* do not raise and remain in the ellipsis site, their uninterpretable features are elided along with them, so the derivation does not crash at PF.

▷ Optional raising only made possible by rescue via ellipsis.

▷ Prediction: auxiliary raising obligatory in all other contexts.

→ Relevant data: VP fronting.

Overview

Extending the analysis: VP fronting (1)

VPF targets the same chunk of structure as VPE

(Zagona 1982; Johnson 2001; Kim 2003; Aelbrecht & Haegeman 2012; Funakoshi 2012; Aelbrecht 2012)

- The lexical verb is fronted
- *Being* is fronted
- *Have* is never fronted
- Modals are never fronted

Extending the analysis: VP fronting (2)

- Lexical verb and *being*: always fronted

(28) a.* If John says he has eaten fish, then [fish] he has **eaten**.

    b.   If John says he has eaten fish, then [**eaten** fish] he has.

    c.* If John says he was being seduced, then [seduced] he was **being**.

    d.   If John says he was being seduced, then [**being** seduced] he was.

Extending the analysis: VP fronting (3)

- Modals and *have*: never fronted

(29) a. If John says he may have eaten fish, then [eaten fish] he may **have**.

    b.* If John says he may have eaten fish, then [**have** eaten fish] he may.

    c. If John says he will eat fish, then [eat fish] he **will**.

    d.* If John says he will eat fish, then [**will** eat fish] he.

▷ Explanation: VPF targets same constituent as VPE: vP_{prog}!

Extending the analysis: VP fronting (4)

TP

[iT]   ModP

MOD   InfP
[uT]
   [iInf]   vP_perf

   have   PerfP
   [uInf]
      [iPerf]   vP_prog

         ProgP

         [iProg]   vP

            being   VoiceP
            [uProg]
               Voice   VP

                  LEX V
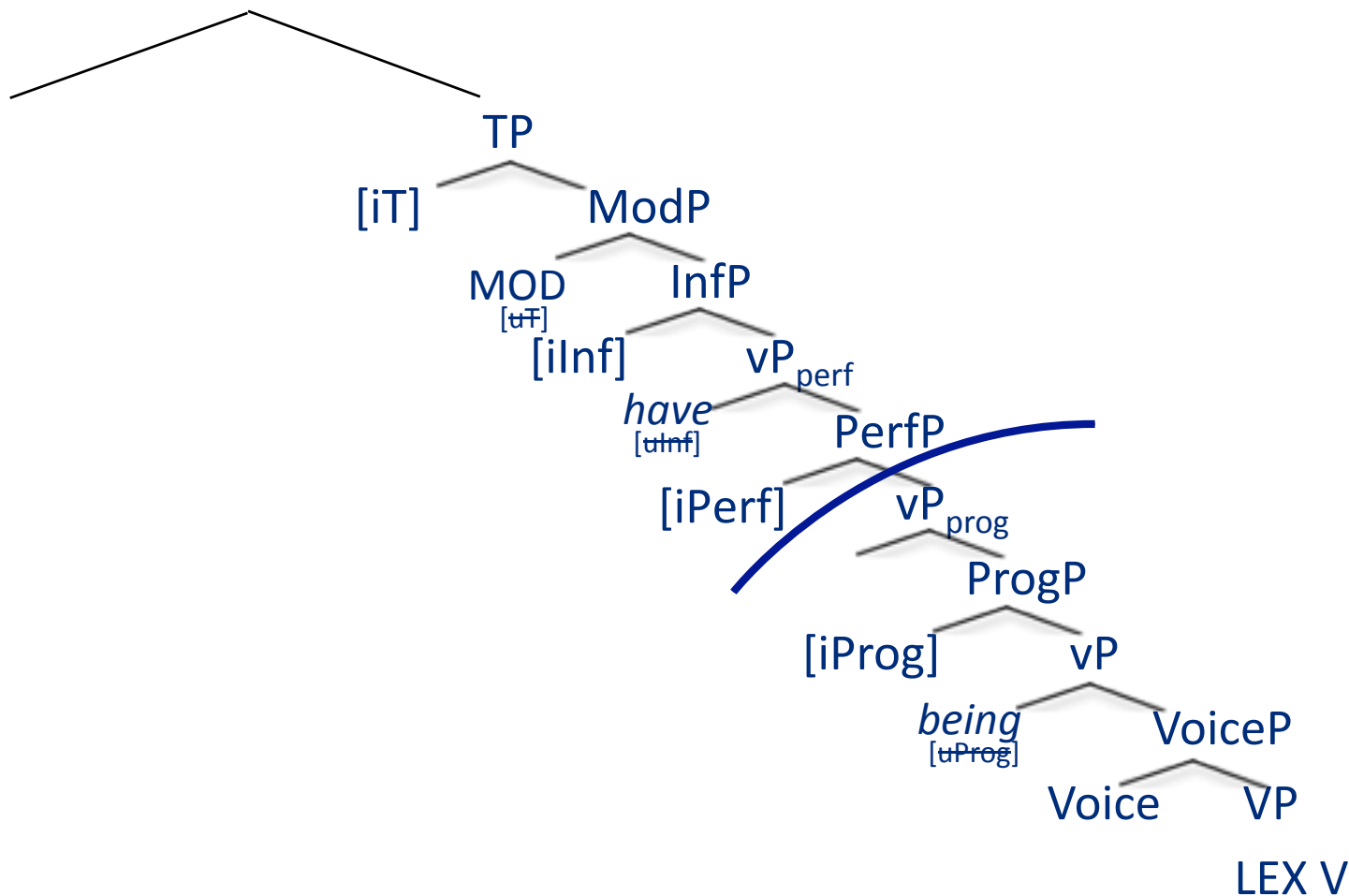
Extending the analysis: VP fronting (5)

- Akmajian, Steele & Wasow (1979) and Roberts (1998): *be/been* can never be fronted, not even optionally:

(30) a.   If John says he'll be working late, then [working late] he will **be**.

b.* If John says he'll be working late, then [**be** working late] he will.

c.   If John says he has been working late, then [working late] he has **been**.

d.* If John says he has been working late, then [**been** working late] he has.

= remarkable contrast with VP ellipsis

→ This can easily be explained by our analysis.

Extending the analysis: VP fronting (6)

Fronted constituent same as ellipsis site: vP_{prog}

→ *Be/been* are generated inside the fronted constituent.

▷ Two options for *be/been*:

- *Be/been* raise out of VPF site to Perf°/Inf° to check features.
  - ▷ Not fronted, derivation fine.

- *Be/been* do not raise and remain in the VPF site, but no ellipsis occurs to rescue the derivation.
  - ▷ The unchecked features remain and the derivation crashes.

Extending the analysis: VP fronting (7)

✓ Raising of *be/been*

TP
└ ModP
  └ InfP
    ├ [iInf]
    └ vP_perf
      └ PerfP
        ├ [iPerf]
        └ vP_prog
          ├ *been* [uPerf]
          │ *be* [uInf]
          └ ProgP
            └ vP
              ├ *been* [uPerf]
              │ *be* [uInf]
              └ VoiceP
                ├ Voice
                └ VP
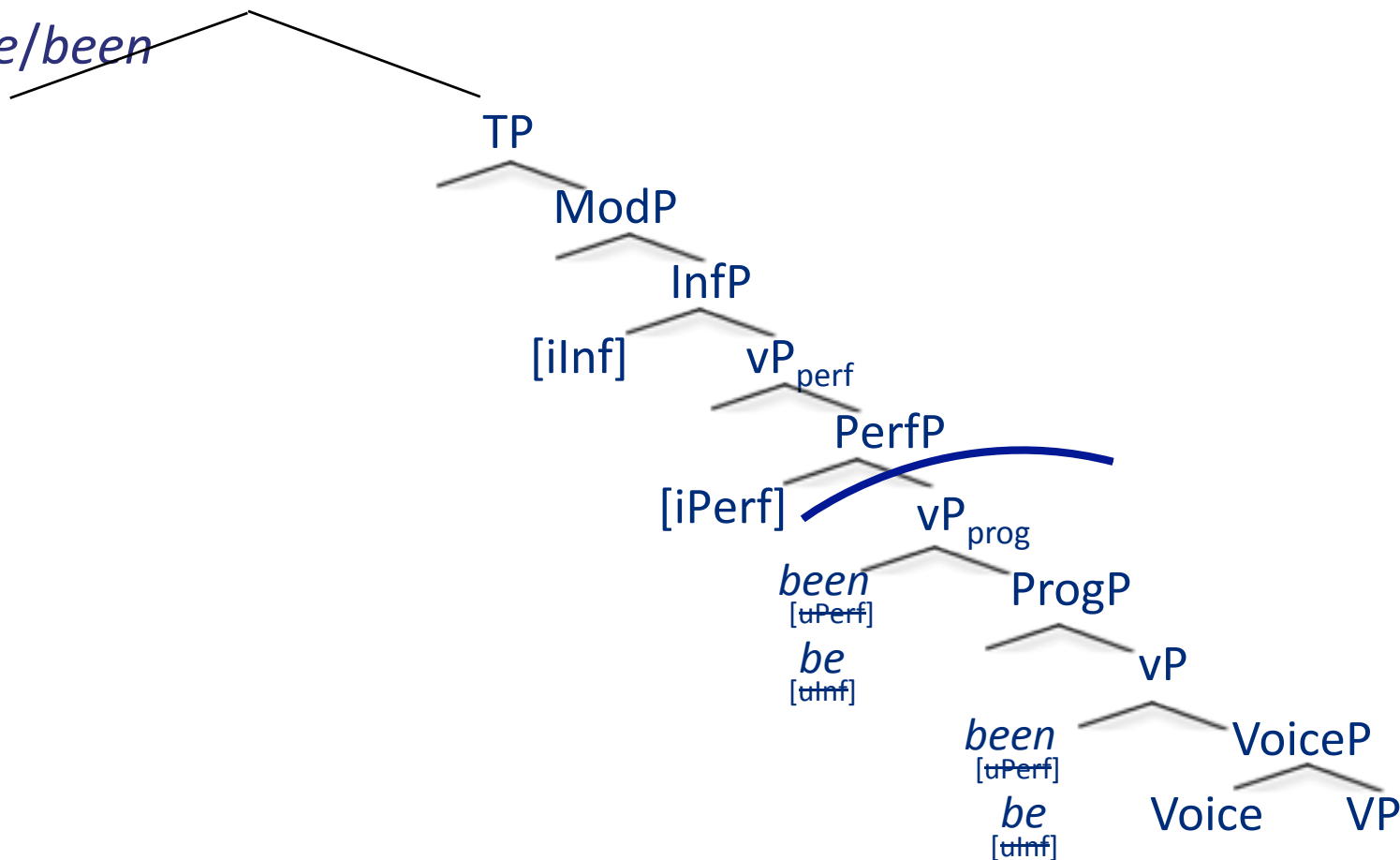
Extending the analysis: VP fronting (8)

*Non-raising of *be/been*

TP
 ModP
  InfP
   [iInf] vP$_{perf}$
         PerfP
    [iPerf] vP$_{prog}$
      been
      [uPerf] ProgP
       be
       [uInf] vP
           been
           [uPerf] VoiceP
            be
            [uInf] Voice VP
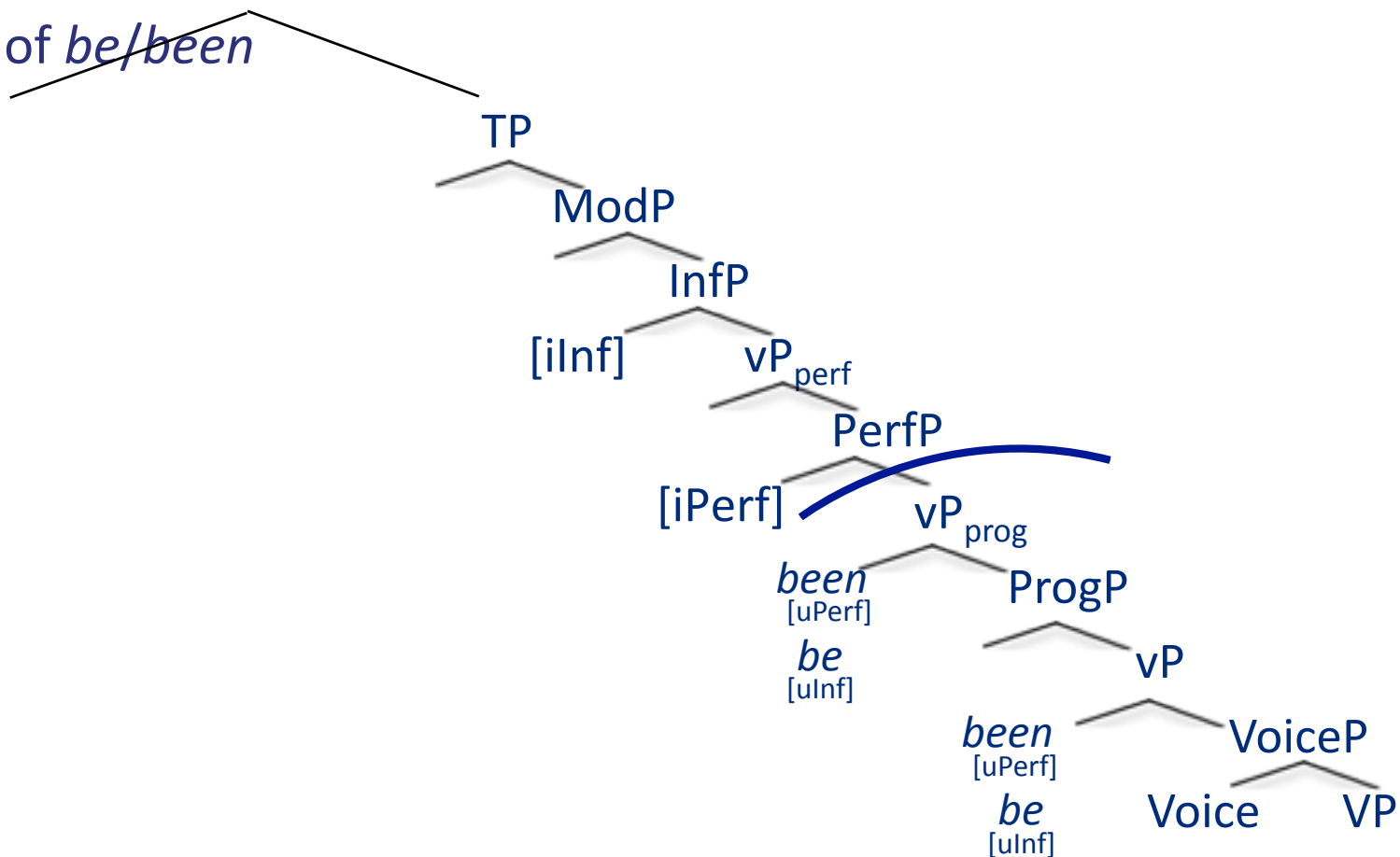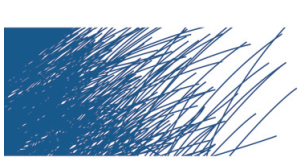
Extending the analysis: VP fronting (9)

Extending the data set even more:

We expect other phenomena that make use of either VPE or movement of the verb phrase to exhibit the same pattern.

→ Phenomena involving VPE: optional deletion of *be/been*.

→ Phenomena involving movement: obligatory stranding of *be/been*.

This prediction is potentially borne out in:

o Tag questions in American English (involving VPE)

o Specificational pseudo-clefts (involving VPF)

o Predicate inversion (involving VPF)

Extending the analysis: VP fronting (10)

o Tag questions in American English

Akmajian & Wasow (1975), Bošković (2004): AmE tags parallel VPE

Lexical verb and *being* → always absent from tag questions
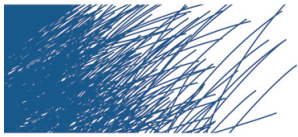
Non-finite *have* → always present (if the sentence being tagged contains perfect aspect, naturally)

(31)   a.   Ted was being eaten by a gorilla, wasn't he (***being**) (*eaten) ~~by a gorilla~~.

         b.   Ted should have become a hot air balloon pilot, shouldn't he *(**have**)?

Extending the analysis: VP fronting (11)

Sailor (2009): Tags can be analysed involving VPE.

! *Be* and *been* are optionally elided in these tags, like in VPE (Sailor 2009)

(32)   a.   Ted has been eating dolphin sandwiches, hasn't he (**been**)?

          b.   Ted will be eating dolphin sandwiches, won't he (**be**)?

                                            (American English)

→ If tags indeed involve VPE, this is expected under our analysis.

British English tags are different: only the finite auxiliary remains. Even non-finite *have* is deleted (Sailor 2009). Perhaps they don't involve VPE?

Extending the analysis: VP fronting (12)

o Specificational pseudoclefts

Such pseudoclefts involve fronting of the verb phrase (Blom & Daalder 1977, Declerck 1988, Den Dikken 1995, Heggie 1988, Heycock 1994, Higgins 1979, Moro 1997 &Verheugd 1990).
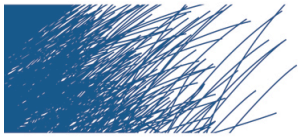
Sailor (2012): *being* is always included in the pseudocleft.

(33)   Ted should be being praised. – No, *<**being**> criticised is what he should be <***being**>.

Extending the analysis: VP fronting (13)

Sailor (2012): *been* and *be* are never included in the pseudocleft, not even optionally (and neither is *have*).

(34)   a.   Ted should be praised. – No, <***be***> criticised is what he should *<***be***>.

   b.   Ted should have been praised. – No, <***been***> criticised is what he should have *<***been***>.

→ Conforming with our prediction: Auxiliaries only have the option of not raising in ellipsis contexts, in which their unchecked PF features can be deleted via ellipsis.

Extending the analysis: VP fronting (14)

o Predicate Inversion

Hooper & Thompson (1973), Emonds (1976), Heycock & Kroch (1999) and Haegeman (2008) have analysed predicate inversion contexts as involving fronting of the predicate.

→ *being* is always included in the inversed predicate:

(35)   [Also **being** loud and obnoxious today] is my old friend Bugs Bunny.
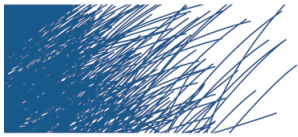
(36) * [Also loud and obnoxious today] is **being** my old friend Bugs Bunny.

Extending the analysis: VP fronting (15)

→ *Be* and *been* are never included in the inversed predicate:

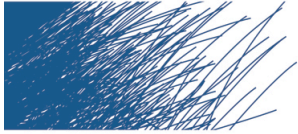(37) a.   [Also with us in the studio today] will **be** my old friend Bugs Bunny.

   b. * [Also **be** with us in the studio today] will my old friend Bugs Bunny.

(38) a. [Also with us in the studio today] has **been** my old friend Bugs Bunny.

   b.* [Also **been** with us in the studio today] has my old friend Bugs Bunny.

→ This is captured by our analysis: obligatory raising in non-ellipsis.

Overview

Digging deeper: Predicate ellipsis (1)

Our claim: VPE elides as much as vP$_{prog}$.

! If progressive aspect is absent from the structure → VPE elides vP.

= 'variable ellipsis site'

(Note: 'variable' depending on what is present in the structure, not in the sense of Akmajian, Steele & Wasow 1979 and Bošković 2012, for whom VPE can optionally elide more or less, and who explain the optional deletion of *be* and *been* in this way.)

Digging deeper: Predicate ellipsis (2)

Problem: If the constituent being targetted by VPE varies, it is harder to formalise how ellipsis is licensed.

For instance, if the ellipsis site is recognised as 'the constituent bearing the E-feature' (Merchant 2001), does the E-feature sometimes occur on v_{prog} and sometimes on v?

→ How to formalise the licensing of ellipsis, and more specifically, how to determine the size of the ellipsis site formally?

Our (speculative) solution: VPE is predicate ellipsis.

Digging deeper: Predicate ellipsis (3)

VPE does not necessarily delete a VP.

→ It can elide any kind of main clausal predicate:

(39) a. The door was green, but the window wasn't [~~green~~].

b. Marshall could have been a pilot and Lily could have been [~~a pilot~~] too.

c. The chickens were in the garden, and the crocodile was [~~in the garden~~] too.

→ VPE elides the main predicate of a clause, not necessarily a vP.

Digging deeper: Predicate ellipsis (4)

Our suggestion:

VPE targets the highest projection in the predicate layer of the clause.

What is included in this predicate?

- Lexical VP/DP/PP/AP

- The internal and external arguments of this lexical predicate

- Little v projection: determines some lexical properties, such as agentivity, causality etc.

- (According to us) the progressive projection

Digging deeper: Predicate ellipsis (5)

TP
　　ModP
　　　　InfP
　　　　　　vP$_{perf}$
　　　　　　　　PerfP ——— VP ellipsis site = predicative layer
　　　　　　　　　　vP$_{prog}$
　　　　　　　　　　　　ProgP
　　　　　　　　　　　　　　vP
　　　　　　　　　　　　　　　　VoiceP
　　　　　　　　　　　　　　Voice　　VP
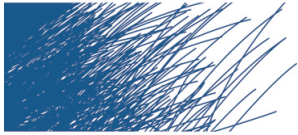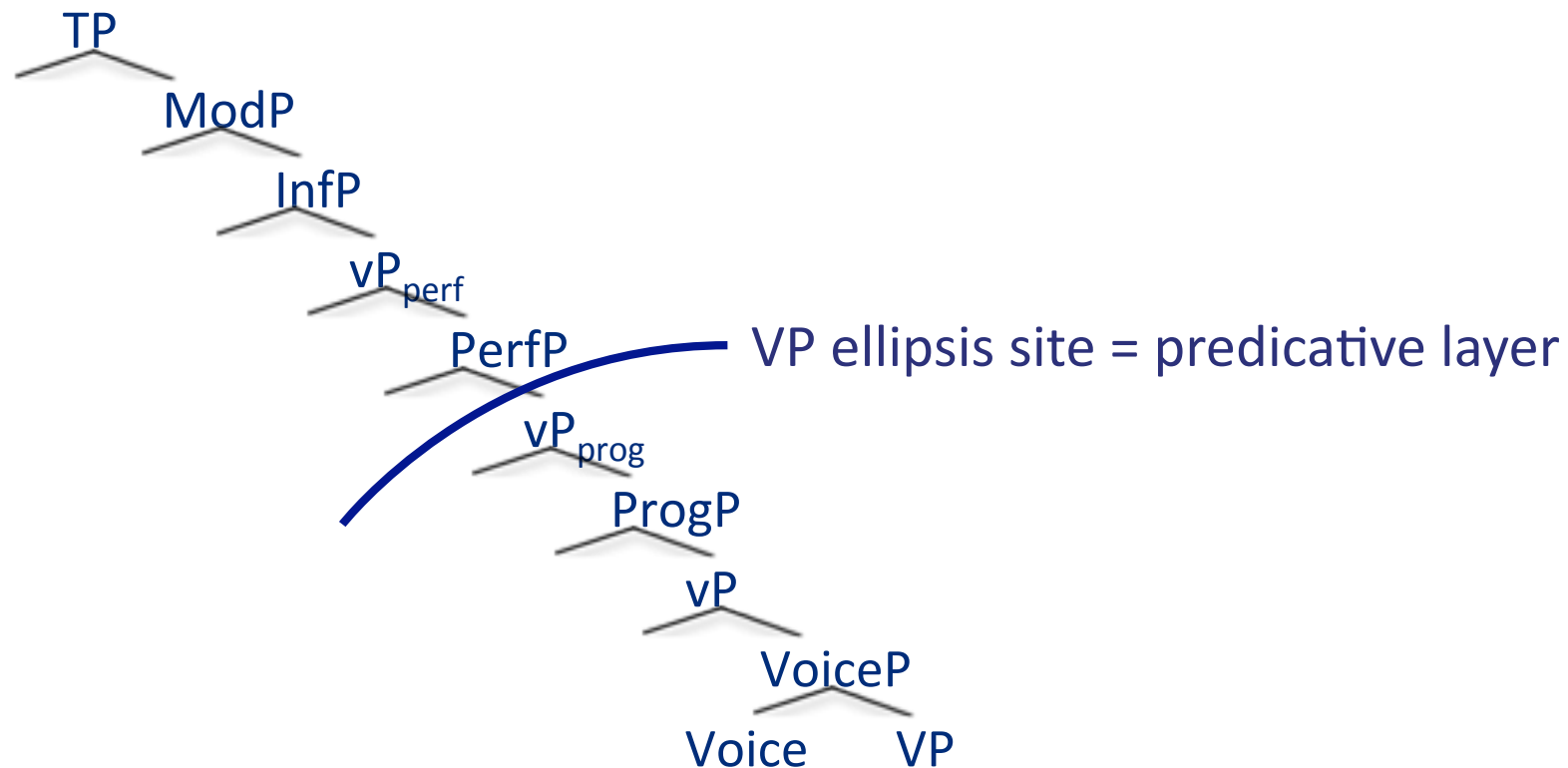
Digging deeper: Predicate ellipsis (6)

Why would the progressive be part of the predicate layer, and not perfect aspect? Why would it be more lexical?

o   Progressive is sensitive to lexical restrictions, unlike perfect aspect:

(40)a.   *I am knowing French.   → progressive not with stative Vs

    b.   I have known him for years.   → perfect fine with all kinds of Vs

o   Morphological form of progressive = nominalisation in several languages

(41) a.   Ted(s) growing (of) a beard was the worst idea ever.

    b.   De krokodil   was aan het dansen.   (Dutch)
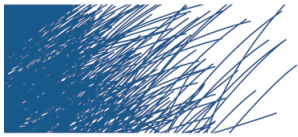
        the crocodile was on   the dance.INF (The crocodile was dancing.)

Digging deeper: Predicate ellipsis (7)

o Progressive and passive auxiliary is *BE* in English, just like the copular auxiliary in predicate constructions, and unlike perfect aspect *HAVE*:

(42)a.   He was swimming/drunk/in the garden/arrested/a doctor.

b.   He has eaten the dolphin sandwich.

!! Whether this is a correlation, is easy to test:

- Serbo-Croatian uses *BE* for perfect aspect as well.

- There are several English dialects (Hiberno-English, Shetland English, Newfoundland English) which use *BE* as the perfect aspect auxiliary

→ We should test whether this perfect *BE* can be elided or not.

Digging deeper: Predicate ellipsis (8)

o Progressive aspect can be included in lexical idioms

Idioms typically include the predicate and one or all of its arguments

(43) a.   The boy was thrown/*tossed to the wolves/*hyenas.
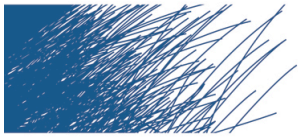
　　 b.   The shit/*dirt will hit the fan/*radiator.

→ Some idioms include progressive aspect as well:

(44)   John <is pushing>/<#has pushed>/<#will push> up daisies.

→ If idioms target predicate projections (Svenonius 2005), then progressive aspect is part of the predicate layer.

Digging deeper: Predicate ellipsis (9)

Perfect aspect is not included in idioms, so not in the predicate layer.

! Some potential counterexamples

(45) a. The cat has got your tongue.

    b. He has been to Rome before.

BUT: (45)a is not dependent on perfect:

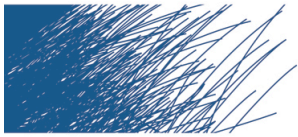(46) a. The cat got your tongue.

    b. The cat has your tongue.

Digging deeper: Predicate ellipsis (10)

BUT: (45)b behaves differently from idioms.

If perfect aspect is absent, the sentence is ungrammatical; it does not simply lose the idiom reading (unlike actual idioms):

(47) a. * I am to Rome tomorrow.

b. * He will be to Rome soon.

c. # John pushed up daisies.
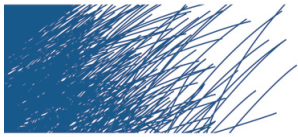
d. # John will push up daisies

Digging deeper: Predicate ellipsis (11)

Moreover, other languages have this construction too, with or without the perfect restriction, and it is not considered an idiom:

(48) a. Ik ben naar Rome.   b. J'ai   été à Rome. / *Je suis à Rome.

I am to   Rome   *I have been to Rome   I   am to Rome*

'I am going to Rome.' (Dutch)   'I have been to R./*I am to R.' (French)

→ Our hunch is that these perfect constructions, which do not involve a lexical verb (always with main *BE*), are not idioms in the sense we are considering idioms for the predicate layer.

→ Perfect aspect is not part of the predicate layer in Standard English.

Digging deeper: Predicate ellipsis (12)

Our tentative proposal: Divide between progressive and perfect aspect in English

→ Predicative layer: up to vP_{prog}
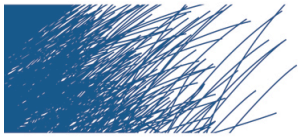
    Functional verbal layer: from PerfP up to TP/FinP

(Will's work: vP_{prog} constitutes the clause-internal phase.)

→ VPE targets the predicative layer, but nothing higher:

      vP_{prog} when it is present
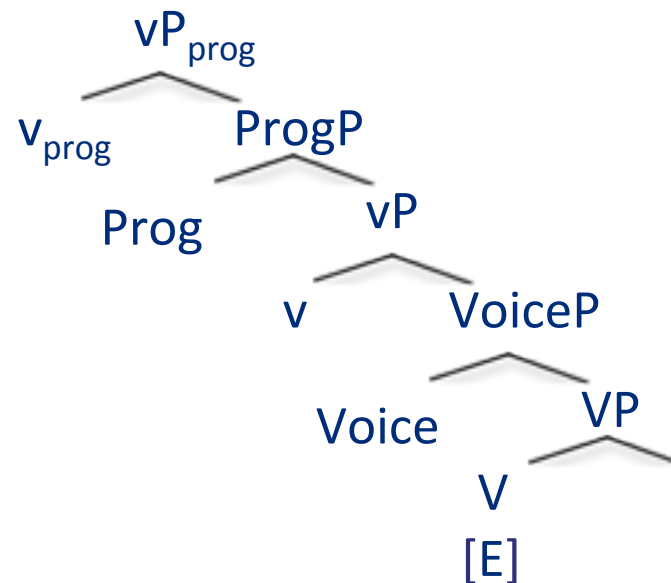
      vP otherwise

Digging deeper: Predicate ellipsis (13)

How to formalise this?

Merchant (2001, 2004): E-feature

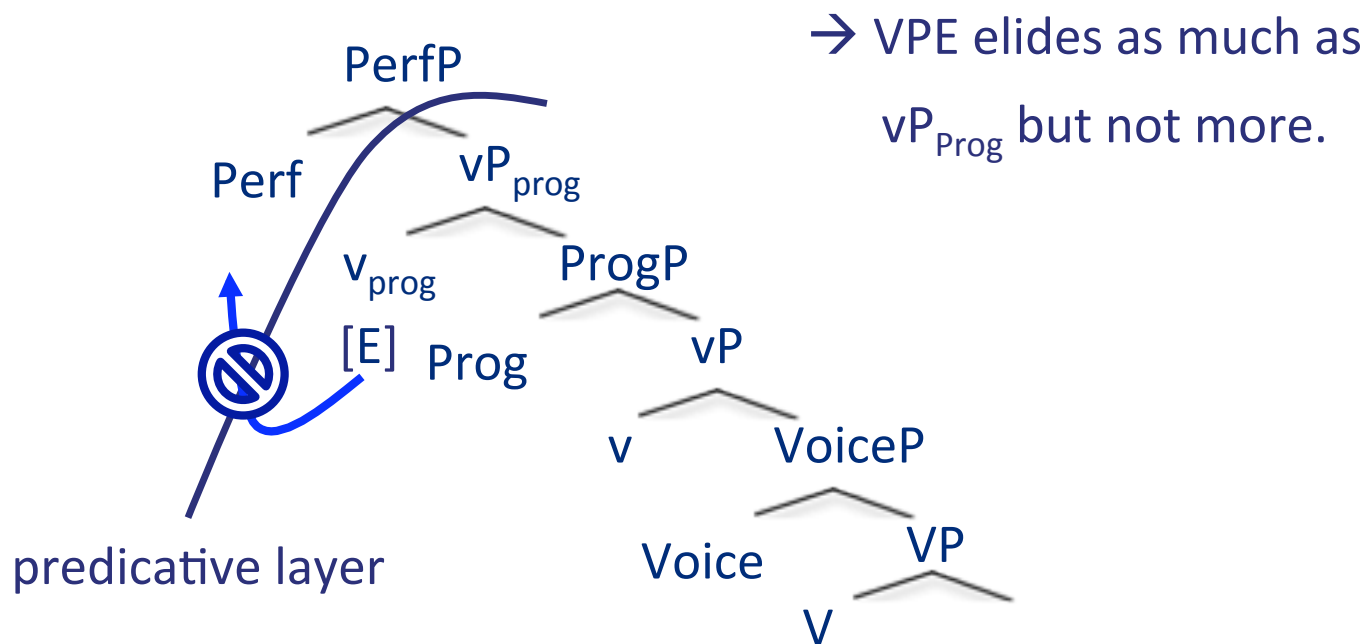**Suppose**: E-feature starts out on V, and percolates up to every next head of the predicative layer

(See Grimshaw's 2005

  extended projections)

vP_{prog}

v_{prog} ProgP

Prog   vP

v   VoiceP

Voice   VP

V

[E]

Digging deeper: Predicate ellipsis (14)

It cannot be transferred to a projection higher than the predicative layer in Standard English: E for predicate ellipsis is only compatible with heads that are part of the predicative layer (see Grimshaw's 2005 Extended Domains).

→ VPE elides as much as vP_{Prog} but not more.

PerfP

Perf vP_{prog}

v_{prog} ProgP

[E] Prog   vP

v   VoiceP

predicative layer   Voice   VP

V

Digging deeper: Predicate ellipsis (15)

Note: E-feature marks the ellipsis site; it is not on the licensing head of the ellipsis (contra Merchant)
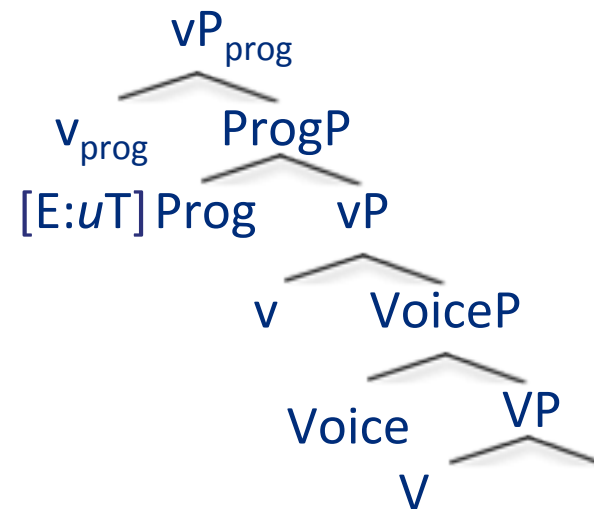
→ This approach is compatible with my own account of ellipsis licensing (Aelbrecht 2010):

E-feature with uninterpretable Tense

vP_{prog}

v_{prog} ProgP

[E:uT] Prog vP
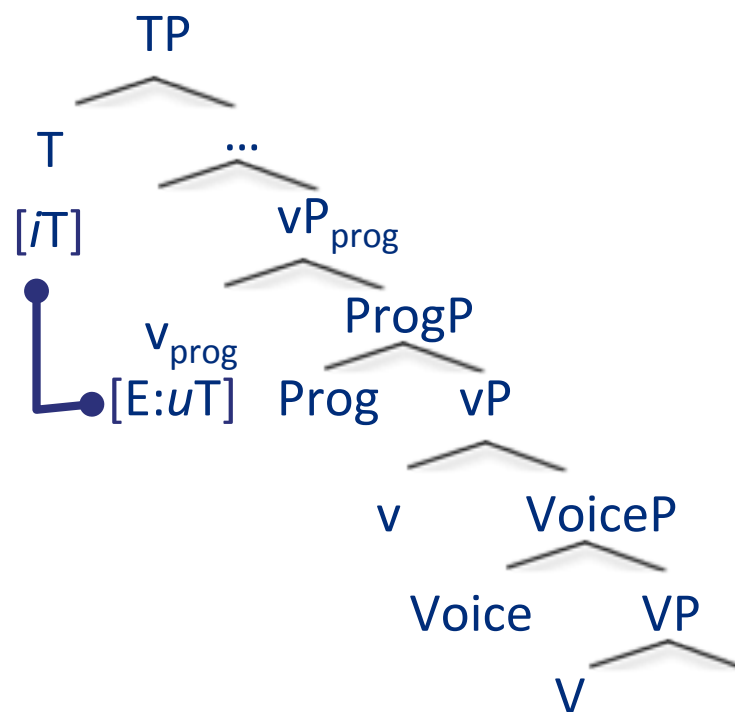
v VoiceP

Voice VP

V

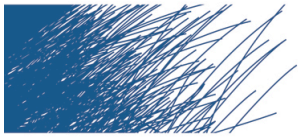# Digging deeper: Predicate ellipsis (15)

Aelbrecht (2010): Ellipsis is licensed via an Agree relationship between the licensing head and the E-feature marking the ellipsis site lower down.

VPE is licensed by T head

→ T checks E and triggers ellipsis

of vP_{Prog}.

TP
T   …
$[iT]$ vP_{prog}
v_{prog} ProgP
$[E:uT]$ Prog   vP
v   VoiceP
Voice   VP
V

Digging deeper: Predicate ellipsis (16)

! This might give us a solution to the *being* problem.

Recall that *being* is normally obligatorily elided, but has to survive ellipsis if it is not recoverable from the antecedent:

(49) Bill was punished this morning, and now Ted is **being** ~~punished~~.

(50) Bill was **being** punished this morning, and now Ted is (***being**) ~~punished~~.

→ *Being* only survives when it's not recoverable from the antecedent (unlike *be(en))*.

Digging deeper: Predicate ellipsis (17)

Suppose:

E obligatorily percolates up to the next head up until it gets to the highest predicative projection (see Grimshaw's extended domains).
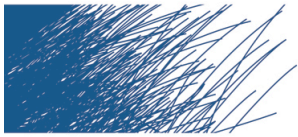
= 'Elide as much of the predicate as possible'

! When *being* is not recoverable, ProgP cannot be elided because of the recoverability condition on ellipsis.

+ 'Elide as much of the predicate as **possible**'

→ The E on v is checked instead of that on vP_{prog} and VPE targets vP (nothing more).

→ **VPE targets the predicative layer, but only the part that is recoverable.**
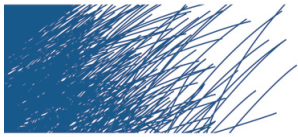
Digging deeper: Predicate ellipsis (18)

Potential evidence for this claim: interaction with associates of existential constructions.

Derived associate must precede *being*, but follows *been*:

(51) a.   John says there are <many people> **being** <*many people> arrested.

 b.   John says that there have <*many people> **been** <many people> arrested.

→   The derived associate must have risen out of the complement of V to some position in the progressive aspectual layer which precedes *being*.

 been – associate – *being* – V

Digging deeper: Predicate ellipsis (19)

When VPE ellipsis is applied to the *being* sentences, the associate and *being* are typically obligatorily elided:
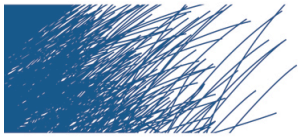
(52)   John says there are many people being arrested, and indeed there are ~~many people being arrested~~.

However, when *being* is not recoverable, it can survive ellipsis:

(53)   John says there will be more people arrested tomorrow than there are being [~~people arrested~~], now.

→ **Proposal**: VPE targets vP here, not the progressive layer due to recoverability.

→ **Prediction**: The associate, which usually raises to a position within the progressive layer, should also be able to survive ellipsis when it occupies this position, despite being recoverable itself.

Digging deeper: Predicate ellipsis (20)

→ To the extent that *being* can be stranded, this prediction is borne out:
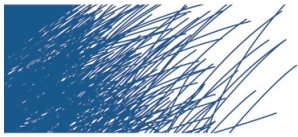
(54)   John says there will be more people arrested tomorrow than there are [$_{vPprog}$ people being [$_{vP}$ ~~t$_{people}$ arrested~~]] now.

➔ Like *be(en)*, the associate raises to check its features.

When VPE targets vP instead of vP$_{prog}$ (when *being is* not recoverable), the associate has two options:

- ○ raise to the progressive layer, check its feature and survive ellipsis, despite being recoverable
- ○ remain in VP, not check its feature and get rescued by ellipsis.

→ This data shows that when *being* escapes ellipsis, it is because the progressive layer isn't targeted by VP ellipsis, but vP is.
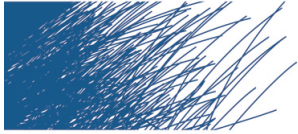
Digging deeper: Predicate ellipsis (21)

o   Remaining problem:

(52) If Ted wasn't being difficult, then who WAS (being)?

We do not know how to deal with this example yet, but it is a rare exception. Maybe it should be considered a fixed expression?
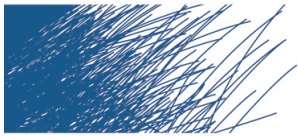
o   Extra application: British English *do*?

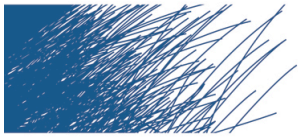*Do* sits in little v head and is not recoverable → Ellipsis of VP only
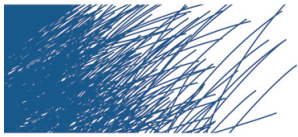
Overview

Conclusion and further issues (1)

- VPE and VPF target vP_{prog}.

- Lexical verb never raises out of this site: never escapes ellipsis or fronting

- *Being* raises to Prog°, within the VPE/VPF site: never escapes ellipsis or fronting

- *Have* and modals are merged outside of the VPE/VPF site: never elided or fronted

- *Be/been* are merged inside of the VPE/VPF site but raise out to check inflectional features:

  - If they raise in ellipsis contexts, they escape ellipsis.

  - Alternatively, *be/been* may remain in the ellipsis site and be elided, having their unchecked features deleted at PF

  - *Be/been* must raise in fronting contexts because there is no ellipsis operation to alternatively delete their features.

Conclusion and further issues (2)

◉ VPE targets the predicative layer, which includes the progressive projections, but not the perfect.

◉ VPE targets as much of this predicate as possible.

◉ This can be formalized using the E-feature (Merchant 2001; Aelbrecht 2010) and Extended Projections (Grimshaw 2005).

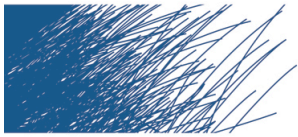# Conclusion and further issues (3)

Further issues

○ Finite *BE*

In our analysis as it stands, finite *BE* has the option to not raise as well, contrary to fact.

→ Possible solution: T has a feature to be checked as well, it needs to be filled.

Auxiliaries have the option to raise, so in this case, they **have** to.

Lexical verbs never raise, and in that case, dummy *do* is inserted (as a last resort PF operation, more costly than auxiliary raising).
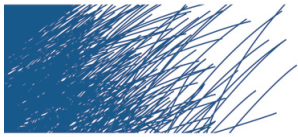
Conclusion and further issues (4)

Further issues

○ Voice mismatches

Merchant (2007, 2008): Voice mismatches between antecedent and ellipsis clause are possible under VPE.

(53) a.   The janitor must remove the trash whenever it is apparent that it should be [~~removed~~].   (Act-Pass)

b.   The system can be used by anyone who wants to [~~use it~~].   (Pass-Act)

→ Merchant: Voice is not included in the ellipsis site, and therefore not subject to the recoverability condition.
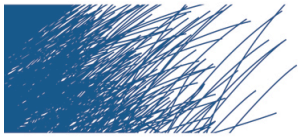
Conclusion and further issues (5)

! Under our approach, Voice **is** included in the ellipsis site, whether VPE deletes either vP or vP$_{prog}$.

→ We predict Voice mismatches to be illicit (if we adhere to the syntactic identity requirement), contrary to fact.

→ Possible solution:

Perhaps speakers who allow for these mismatches, allow for the ellipsis site to be smaller in these cases, on a par with our solution for the survival of *being* when it was not recoverable.
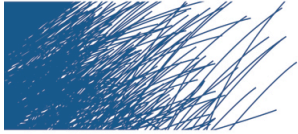
Conclusion and further issues (6)

Potential supporting evidence:

When the sentence contains progressive aspect (i.e., when the ellipsis site is vP$_{prog}$), Voice mismatches are not allowed:

(54)   * The system can be used by just anyone, even though Mary has been [~~using the system~~] all year.

Such mismatches are allowed with perfect aspect:

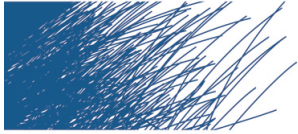(55)   The system can't be used by just anyone, even though Mary has [~~used the system~~] twice already.

Thank You!

Appendix: Previous accounts (1)

Previous accounts:

A. *Being* obligatorily elided
B. *Being* sometimes survives
C. *Be/been* optionally elided

Appendix: Previous accounts (2)

A. *Being*

APPROACH 1: NO RAISING OF *BEING* (Bošković 2004, 2012; Thoms 2011)

Being remains in its base position and has its inflection lowered onto it (see also Akmajian & Wasow 1975; Akmajian, Steele & Wasow 1979)

All other auxiliaries raise to receive inflections.

→ Passive/copular *be* is base-generated in vP without its progressive affix *–ing* attached to it.

The *–ing* affix sits somewhere above *be* in ProgP and is lowered onto the auxiliary.

→ If VPE always targets vP, *being* can never survive ellipsis.

Appendix: Previous accounts (3)

Advantage:

Ellipsis site is always vP → No extension of ellipsis site to vP$_{prog}$ when progressive aspect is present.
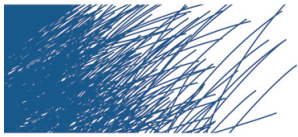
Problem:

It is a pure stipulation that *being* does not raise for inflection when all other auxiliaries do.

Bošković: *being* does not raise because it is adjacent to the *–ing* suffix and *be* can receive its progressive inflection in its base position.

!! What if *BE* surfaces as *been*?

→ ProgP would be absent from the derivation and *BE* would be immediately adjacent to the perfect inflection in PerfP.

→ Prediction: both *been* and *being* are obligatorily elided under VPE since they occupy the same position , contrary to fact.
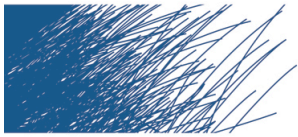
Appendix: Previous accounts (4)

<u>Thoms (2011)</u>: *being* not raising to receive inflection is crucial because it is head movement (and A'-movement) itself that licenses ellipsis of everything below the landing site of the moving head.

→ *Being* can never survive ellipsis because it does not move and therefore cannot license ellipsis of its complement.

Counterargument: In questions the finite verb moves to C°, but the subject is still in TP below it → VPE should be able to elide the subject as well.

(56)   I heard Ted is playing the ukelele tonight. – Oh, is *(he) [~~playing the ukelele tonight~~]?

Appendix: Previous accounts (5)

APPROACH 2: NO AUXILIARY RAISING FOR INFLECTION AT ALL (Sailor 2012; Thoms 2012)

Sailor (2012): uniform lowering of affixes onto auxiliaries through a reverse Agree model (Bjorkman 2011).

→ Distinction between *be/been* and *being:* optional raising of *be* and *been* out of the ellipsis site.

Problems:

    This additional raising is unmotivated and, again, a pure stipulation.

    This optional raising of *be* and *been* cannot capture the obligatory raising of these auxiliaries under VPF contexts. **= biggest problem**
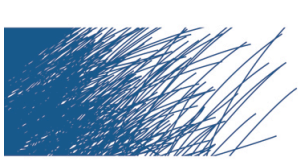
Appendix: Previous accounts (6)
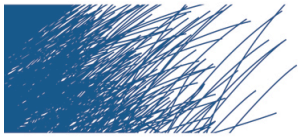
<u>Thoms (2012)</u>:

Optional raising of *have*, *be* and *been* through optional cliticisation to the preceding auxiliary.

Being cannot be cliticised and therefore does not raise.

Problems:

No evidence that *be* and *been* undergo cliticisation to higher elements in the same way that *have* does.

This optional raising of *be* and *been* cannot capture the obligatory raising of these auxiliaries under VPF contexts. **= biggest problem**

Appendix: Previous accounts (7)

B. *Being* sometimes survives

<u>Thoms (2012)</u>:

   Being can cliticise to T and survive ellipsis when the finite aux has extra stress.
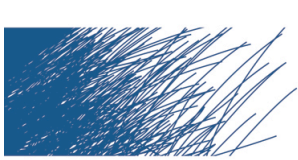
Problem: Several contexts show that *being* cannot be cliticised to T

   Floating quantifiers intervene:

(57)   John said they would all **be** arrested, and they ARE <<u>all</u>> **being** <*<u>all</u>>.

Asssociate of existential construction intervenes:

(58)   John says there will **be** more <u>men</u> arrested tomorrow than there are
      <<u>WOMEN</u>> **being** <*<u>WOMEN</u>> now

Appendix: Previous accounts (8)
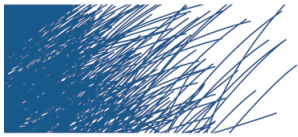
C. *Be/been* optionally elided

Our analysis: optional raising of the auxiliaries for inflection

Other approaches: optional extension of the ellipsis site (Bošković 2012; Akmajian, Steele & Wasow 1979).

Bošković:

Been always raises to occupy Perf°.

VPE either elides the complement of Perf° ($\rightarrow$ *been* survives), or elide PerfP itself ($\rightarrow$ *been* is elided).

Appendix: Previous accounts (9)

Problems:

- Optional ellipsis of *be* (!not discussed by Bošković!): Ellipsis targets either the complement of InfP, or InfP (and *be* in Inf°) itself?

  !! What if non-finite *have* sits in Inf° rather than *be*?

  → Prediction: optional deletion of *have*, contrary to fact.

  !! If in the presence of InfP the complement of Inf° must always be elided under VPE, everything below the infinitival auxiliary is obligatorily elided

  → Prediction: obligatory deletion of *been*, contrary to fact.

- Cannot capture the VPF data.