van Gelderen, Elly (2002). *An Introduction to the Grammar of English. Chapter 3: The structure of the Verb Group in the VP.* Amsterdam: John Benjamins, 97–111.
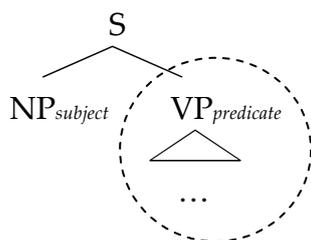
The verb phrase (VP)

a. *VP ≠ Verb Group (VGP)*

① VP = predicate (a *grammatical function*, like *object*, etc.) = verb(s) + non-subject arguments

(1) [s [NP Rufus] [VP **has been sipping absinthe the whole morning**]].

As a tree…

② VGP = informal term for *verbal elements* (a.k.a. verb clusters) *within* a VP (VGP ≠ phrasal)

(2) Rufus [VP **has been sipping** absinthe the whole morning].

b. *The VGP*

The English VGP can be made up of up to 5 verbal elements – 1 lexical & 4 auxiliary verbs

(3) 1. Rufus **sipped** absinthe (yesterday).

2. Rufus *was* **sipping** absinthe (when Sue woke).

3. Rufus *has* **been sipping** absinthe (the whole morning).

4. Rufus *will* **have been sipping** absinthe (by the end of the morning, I predict).

5. Absinthe **will have been** *being* **sipped** (by Rufus, by the end of the morning, I predict). (*passive diathesis; let's ignore the passive*)

c. *A new auxiliary: Dummy* do

Dummy elements (so-called *expletives*) are semantically void placeholders (e.g. for some kind of formal subject requirement, emphasis, etc.):

(4) a. *There* are zillions of idiots in the universe. ('Where are they? Nowhere! They *exist*.')
     b. *It* rains. ('What rains? God?)
     c. *Do* you like shellfish?

The dummy auxiliary *do* occurs in 4 syntactic contexts (Remember the *NICE*-properties of auxiliaries?):

(5)   a. Rufus *does*n't like opossum (negation)

b. *Does* Rufus like opossum? (inversion in polar a.k.a. *yes*/*no*-interrogatives without auxiliaries)

b'. Never *does* he kiss his wife! (inversion after negative adverb)

c. Sue doesn't like opossum, but Rufus *does* (like opossum). (resumption, a.k.a. *c*ode)

d. Rufus *DOES* like opossum! (emphasis)

The analogous phenomenon can be observed in other languages, e.g. colloquial German (where it has spread to unmarked declarative contexts):

(6)   Ich *tue*   das   (nicht)   machen!
       I   do.1SG that   (not)   make
       'I won't do that!'

We'll come back to dummy *do* as evidence for a particular syntactic assumption…

d. *The phrase structure of the VGP*
   Van Gelderen opts for a *flat structure* (for ease of representation)

(7)
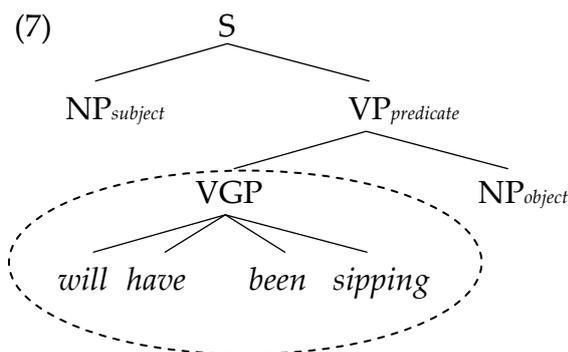
Of course, the VGP is *hierarchically* structured just like other phrases. For example, we can re-place part of the VGP *and* the direct object by *do so* (≈ pronominalisation), which shouldn't be possible given (7):

(8) a. Rufus will have ~~been sipping absinthe~~. ⇒ Rufus will have **done so**.

b. Rufus will have ~~been sipping~~ absinthe. ⇒ * Rufus will have **done (so)** absinthe.

A more adequate hierarchical representation of the VGP would look like this:

(9)

```
                    S
          ┌─────────┴─────────┐
     NP_subject          VP_predicate
                    ┌─────────┴─────────┐
                 V_mod                  VP
                   │            ┌────────┴────────┐
                 will        V_perf              VP
                               │          ┌───────┴───────┐
                             have       V_asp            VP
                                          │        ┌───────┴───────┐
                                        been       V           NP_object
                                                   │
                                                sipping
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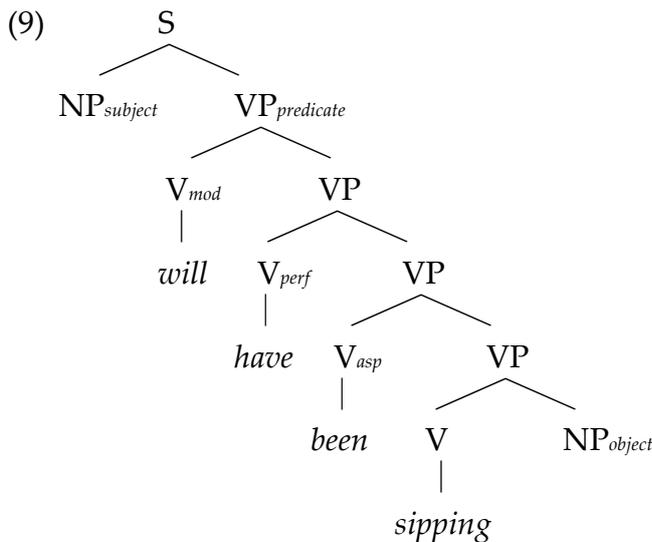
Here, we have multiple VP's embedded into each other. Interestingly, they obey a hierarchy

(10) $V_{mod} \succ V_{perf} \succ V_{asp} \succ V$

which tells you something about the *relative order* of two verbal elements (e.g., both V_{mod} and V_{asp} *always* precede V, but in addition V_{mod} *always* precedes V_{asp}, etc.).

e. *Affix-hopping (Chomsky 1957)*

Observation 1: Each type of auxiliary co-occurs with a certain affix on the verbal element following/below the auxiliary

    (11) *Perfect:* HAVE + *past participle*
        a. Rufus **has** be*en* sipping absinthe.
        b. Rufus **has** sipp*ed* absinthe.
        c. Rufus will **have** be*en* sipping absinthe.

Note: *(sip)ed* in (*b*) is a realisation (a morph) of the abstract past participle morpheme –EN, and not a simple past morpheme. English has pretty much lost the *formal* (!) distinction between *simple past tense* and *past participle* suffixes with *regular verbs*:

    (12) Rufus (has) walk*ed*/kick*ed*/kiss*ed*/… Sue's dog.

For regular verbs, –EN → –*ed*. However, for irregular verbs, the past participle is still different from the simple past suffix:

    (13) a.   Rufus beat/ate/bit/blew/froze/… Sue's dog.
        a'. *Rufus has beat …
        b.   Rufus has beat*en*/eat*en*/bitt*en*/blow*n*/fro*zen*/… Sue's dog.

b'. *Rufus beaten …

So, HAVE *always* makes sure that the verb following it carries a –EN affix, but not a simple past or progressive aspect one:

(14) a. Rufus has eaten opossum for breakfast.
b. *Rufus has ate opossum for breakfast.
c. *Rufus has eat*ing* opossum for breakfast.

This fact could be interpreted as the perfect auxiliary V_{perf} containing the affix (as kind of selectional feature, ensuring that V_{perf} selects a past participle), shooting it down to the verbal element below it: **the affix hops**.

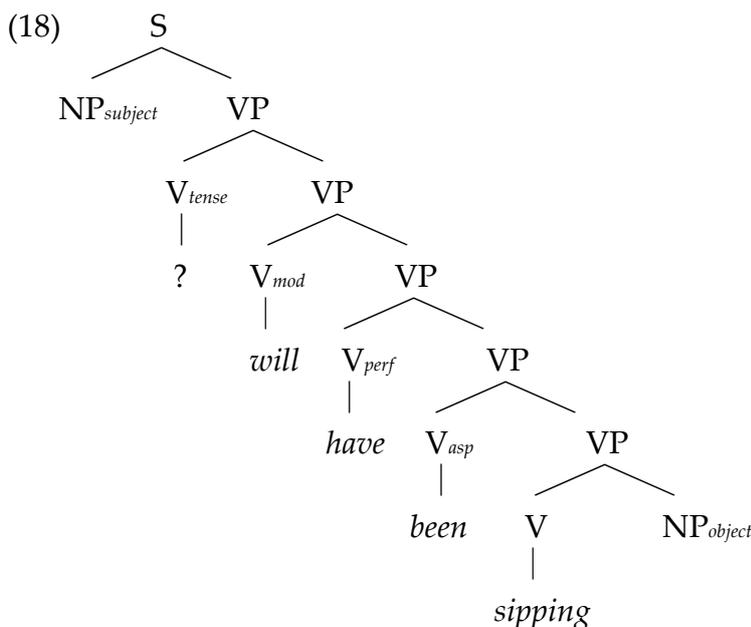(15) Rufus has[-EN] eat opossum for breakfast. ⇒ Rufus has[ ] eat-*en* opossum for breakfast.

For a complex VGP, affix-hopping would look as follows:

(16) Rufus has[-EN] be[-ING] eat opossum. ⇒ Rufus has[ ] be[ ]-*en* eat[ ]-*ing* opossum.

f. *What about tense?*

What's with tense suffixes? If every suffix hops from a higher to a lower element, where does tense come from? Let's add another V_{tense} to our hierarchy:
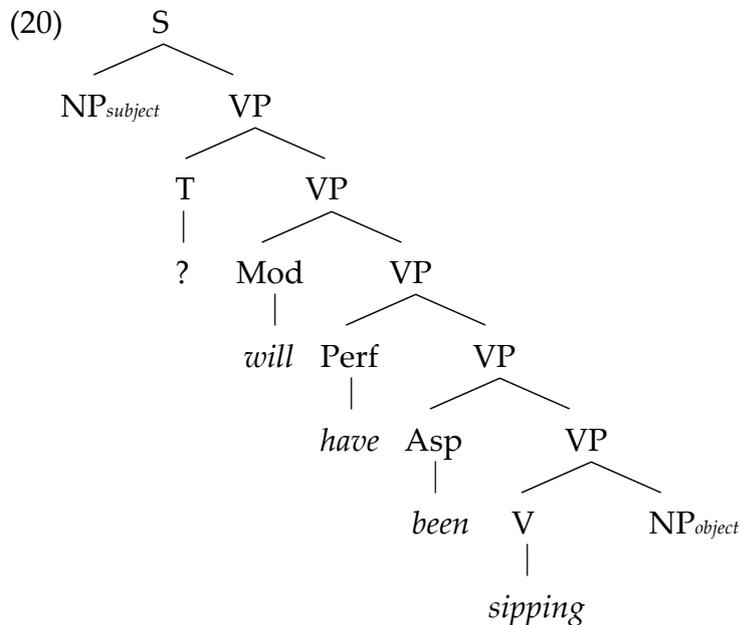
(17) $V_{tense} \succ V_{mod} \succ V_{perf} \succ V_{asp} \succ V$

(18)
```
                    S
            ┌───────┴───────┐
        NP_subject          VP
                    ┌───────┴───────┐
                 V_tense            VP
                    │        ┌──────┴──────┐
                    ?      V_mod           VP
                            │       ┌──────┴──────┐
                          will    V_perf          VP
                                    │      ┌───────┴───────┐
                                  have   V_asp             VP
                                          │        ┌───────┴───────┐
                                        been       V            NP_object
                                                   │
                                                sipping
```

Incidentally notice that, instead of using V plus subscripts to show that TAM-categories are V-related (this is basically true of English, but not necessarily for other languages, where, for

example, tense is marked on nouns, e.g. in Samoyedic, an Uralian language!), a more adequate notation would be

(19) T ≻ Mod ≻ Perf ≻ Asp ≻ V

(20)

```
                    S
              ┌─────┴─────┐
          NP_subject      VP
                      ┌────┴────┐
                      T         VP
                      │     ┌────┴────┐
                      ?    Mod        VP
                           │      ┌────┴────┐
                          will   Perf       VP
                                  │      ┌────┴────┐
                                 have   Asp        VP
                                        │      ┌────┴────┐
                                       been     V      NP_object
                                                │
                                             sipping
```

These are categories on their own, which come from the lexicon with different value themselves (e.g. T$_{past}$, T$_{future}$, Mod$_{epistemic}$, Mod$_{deontic}$; etc.).

Conceptually, while TAM-related information might surface *as* verbal elements or attached to other verbal elements as affixes, they just are not verbs proper in that they *do not denote an event*, but rather properties of events (cf. our course):

(21) V *sip*: 'A punctual event of ingesting a liquid in a small quantity & in short time' (*meaning*)

(22) Asp$_{prog}$ *be*: '(de)focussing the internal structure of an event' (*function*)

Thus, T contains an affix [T] (or, more specifically, [PAST/PRESENT/FUTURE], if future tense exists at all; same holds for the present), which it hands down to the next lower verbal element, but otherwise, *T remains unpronounced* in English (hence the '?' in the tree above)!

(23) Rufus T$_{[-S]}$ ha$_{[-EN]}$ be$_{[-ING]}$ eat opossum. ⇒ Rufus T$_{[\ ]}$ ha$_{[\ ]}$-*s* be$_{[\ ]}$-*en* eat$_{[\ ]}$-*ing* opossum.

Assume that –*s* is a realisation of [PRES] in 3rd person sg. (let's abstract away from agreement, things are complicated enough); in any other combination of agreement features, present tense remains invisible:

(24) [NP Rufus and Sue]*3rd person pl.* T[PRES] have been eating opossum.

In addition, note that modal auxiliaries don't inflect for present tense *–s*, nor do they contain any affix (unlike, say, German modals, which behave just like other auxiliaries):

(25) a. *Rufus T[PRES] may**s** eat opossum.
  b. Rufus T[ ] mi[∅]-ght eat[∅] opossum (this Wednesday).
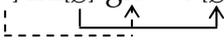
But why assume a silent element without any evidence? Actually, this is where the *dummy do* re-enters the stage. Mysteriously, the lexical verb in English seems to be 'weak': some elements block affix hop to V (e.g. negation), V cannot carry emphasis, V cannot participate in inversion, nor in resumption (cf. NICE). Take negation as an example:

(26) *Negation*
   a. Rufus ate opossum (every Wednesday).
   b. *Rufus **not** ate opossum (every Wednesday).
   b'. Rufus *did* **not** eat opossum (every Wednesday].

The idea is that, since [PAST] carried by T is an *affix* (i.e. it must *attach* to another verbal element), but is blocked (for some reason not important here) by the sentential negator *not*, it is *supported* by the semantically vacuous dummy *do* (hence a.k.a. *do-support*):

(27) i.   Rufus T[PAST] **not** eat opossum (every Wednesday).

   ii. Rufus T[PAST] **not** eat opossum (every Wednesday).

   iii. Rufus *do*[PAST] **not** eat opossum (every Wednesday).

   iv. Rufus *do-es* **not** eat opossum (every Wednesday).

So, the *do* doesn't contribute *anything* to the semantic/pragmatic interpretation of the sentence, but appears to be a purely formal requirement that serves to support an otherwise stranded affix.

g. *Concluding remarks*
What you want to keep in mind is the following:

① VP's may consist of more than one verbal element.
② The verbal elements obey a particular order.
③ Two neighbouring verbal elements are associated by affix-hopping.
④ There's an independent T(ense) category, as shown by *do*-support.