Head Movement

Luke Smith   October 27, 2016

(1)   I often eat apples.

(2)

```
                        CP
                         \
                          C'
                         /  \
                        C    TP
                            /  \
                          DP    T'
                          /\   /  \
                        Billy T    VP
                            [pres] /  \
                                       V'
                                      /  \
                                   AdvP   V'
                                    /\   /  \
                                 often  V    DP
                                      eats   /\
                                          apples
```
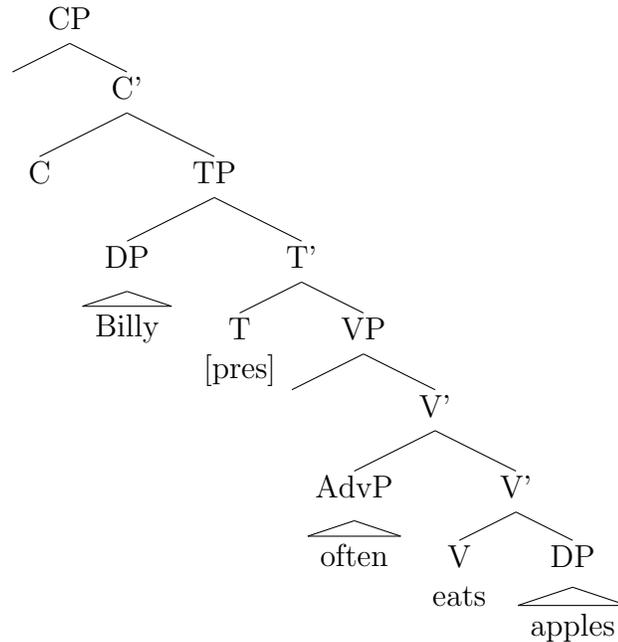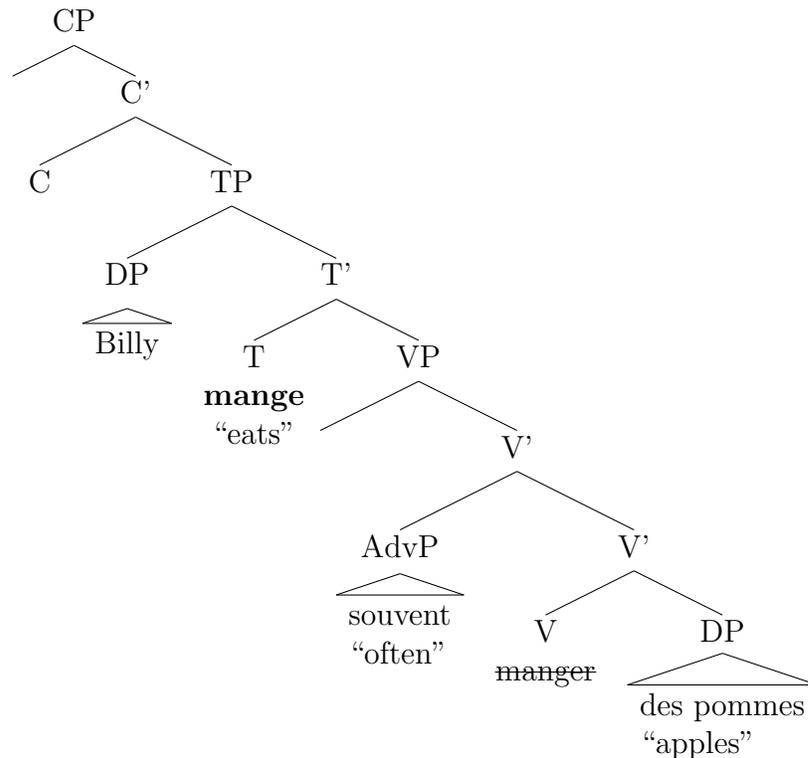
(3)   Notice that French differs from English in adverb ordering:

   Billy mange souvent des   pommes.
   Billy eats   often   some apples

   "Billy often eats apples."

(4)

```
                        CP
                       /
                      C'
                     /  \
                    C    TP
                        /  \
                      DP    T'
                      /\   /  \
                    Billy T    VP
                        mange  /  \
                        "eats"      V'
                                   /  \
                                AdvP   V'
                                 /\   /  \
                             souvent  V    DP
                             "often" manger /\
                                         des pommes
                                          "apples"
```

(5)   This phenomenon is called **head movement.** Individual heads often move up the clausal spine.
      We will see this is a cross-linguistic *parameter*.

(6) Notice in any language there is some kind of relationship between V and T. The verb in V *wants* the tense in T. For now, just think of it this way: English lets the tense fall down onto the verb, while French verbs climb up to get to the tense.

(7) What other reason do we have to think that French verbs are actually moving upward? Remember that auxiliaries in English are higher in the clause than verbs, we can see that English auxes appear in the same syntactic locations as normal French verbs.

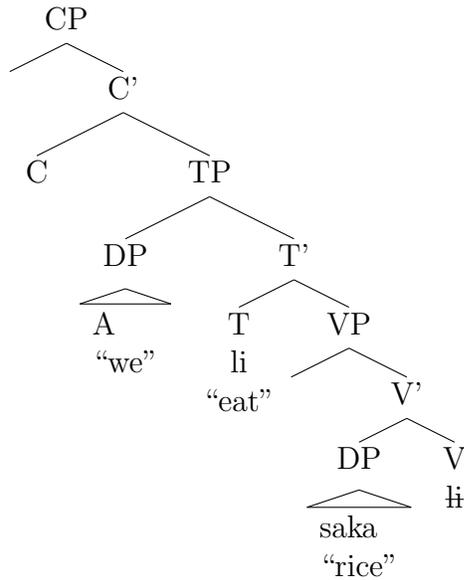| Billy		often	eats	apples
Billy	mange	souvent		des pommes
Billy	has	often	eaten	apples
Billy	a	souvent	mangé	des pommes

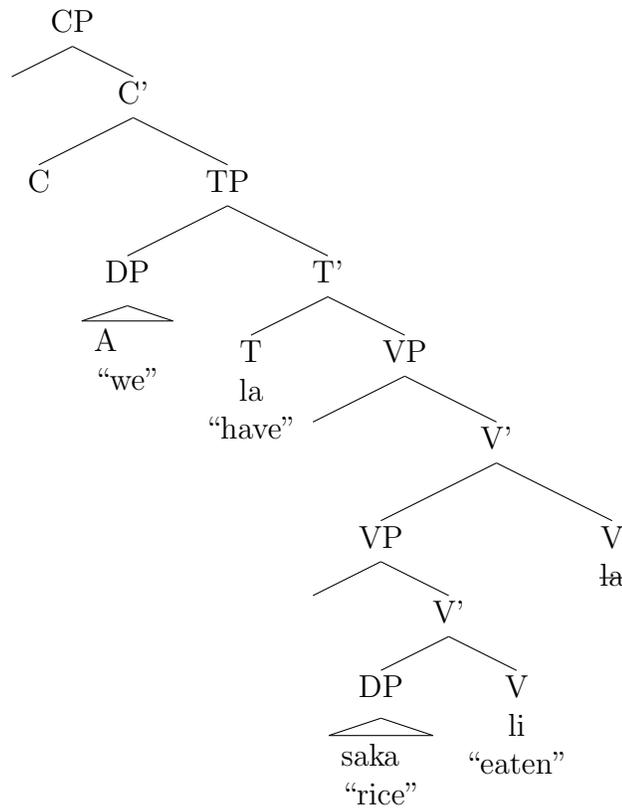**Note the perfect tenses in English and French!** The word orders are the same unlike the others.

(8)
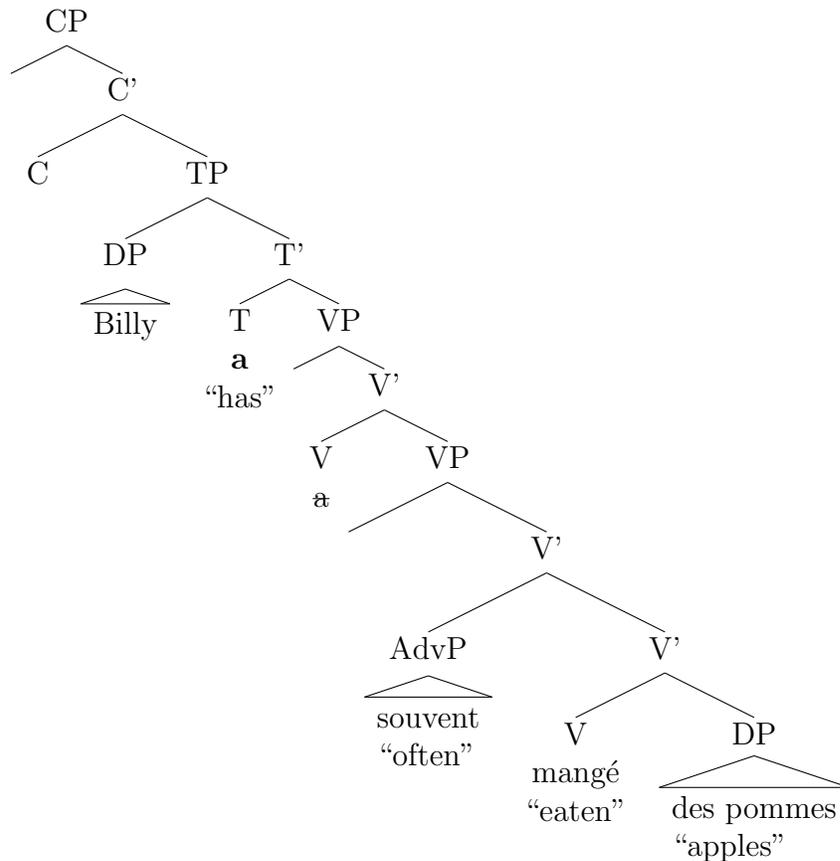
(9) Notice the French examples in (7). The word for eat/eaten (*mange/mangé*) *precedes* the adverb in normal sentences, but *follows* it when in a sentence with an adverb.

(10) **Generalization:** In French, the upmost verb (including the auxiliaries), will move up to T. This *perfectly corresponds* to the appearance of tense/person inflection.

(11) There is yet more interesting data from Vata (a Niger-Congo language). Vata is underlyingly has **head-final** VPs, but often verbs move to T, confusing the matter.

(12)   a. A li   saka.
          we eat rice

          "We eat rice."

        b. A la   saka li.
          we have rice eaten

          "We have eaten rice"

(13)

```
                    CP
                    |
                    C'
                   /  \
                  C    TP
                      /  \
                    DP    T'
                    /\   /  \
                   A   T    VP
                 "we"  li   /  \
                     "eat"     V'
                              /  \
                            DP    V
                            /\    l̶i̶
                          saka
                         "rice"
```

(14)

```
                     CP
                     |
                     C'
                    /  \
                   C    TP
                       /  \
                     DP    T'
                     /\   /  \
                    A   T    VP
                  "we" la   /  \
                     "have"    V'
                              /  \
                            VP    V
                           /  \   l̶a̶
                              V'
                             /  \
                           DP    V
                           /\    li
                         saka  "eaten"
                        "rice"
```

1   Implications: Questions and Negation

(15)   Now lets move to an area

(16)   We have to go deeper!

(17)   Verbs can more to T, and there's an intuitive reason why. Verbs often communicate some kind of tense or inflection and T houses the clause's inflection.

(18)   Remember that the C domain is supposed to be the realm for disource related items. When verbs have a special disoursive purpose, they often climb all the way to C.
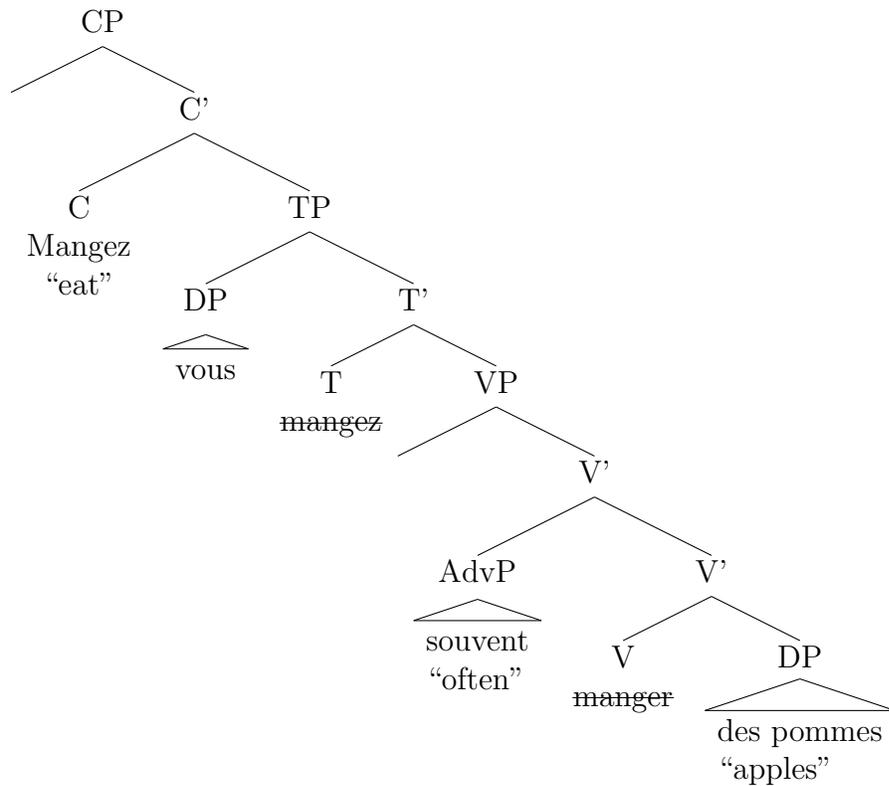
(19)   Mangez- vous souvent des   pommes?
       eat   you often   some apples

"Do you often eat apples?"

This is **question-inversion**, also known as **subject-aux inversion**, or most specifically for our purposes, *T-to-C movement*.

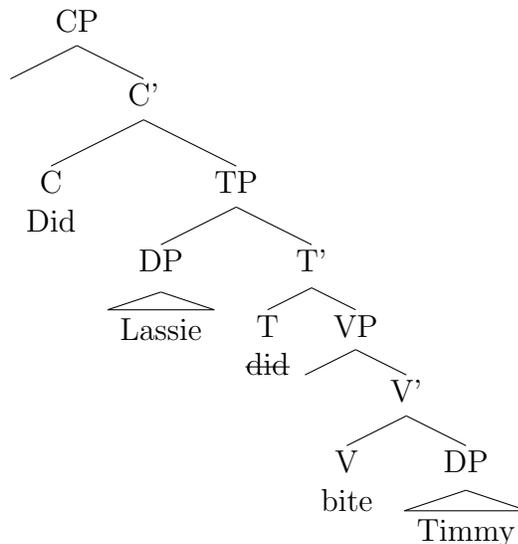(20) In French, to ask a question, simply move the verb or aux which has already risen in T even further into C.
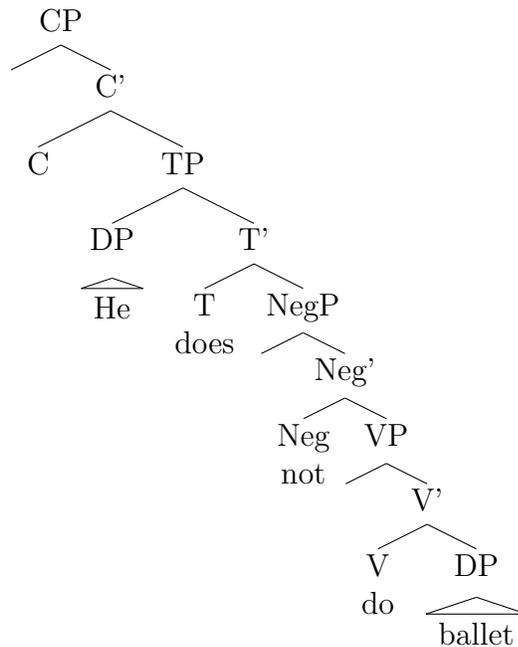
(21)

```
                        CP
                         \
                          C'
                         /  \
                        C    TP
                    Mangez   / \
                     "eat"  DP   T'
                            /\   / \
                          vous  T   VP
                               ‾‾‾‾‾‾   \
                               mangez    V'
                                        /  \
                                     AdvP    V'
                                     /\     /  \
                                  souvent  V    DP
                                  "often" ‾‾‾‾  /\
                                          manger des pommes
                                                 "apples"
```

(22) **Problem:** In English, which doesn't allow moving V to T, how do we ask questions of simple sentences like the following?

    a. Lassie bit Timmy.

    b. The bus exploded.

    c. The president died.

(23) **Solution:** English has to add a "dummy" modal verb to be able to ask about these, since normal verbs can't head-move!

```
                CP
                 \
                  C'
                 /  \
                C    TP
               Did   / \
                    DP   T'
                    /\   / \
                 Lassie T   VP
                       ‾‾‾   \
                       did    V'
                             /  \
                            V    DP
                          bite   /\
                               Timmy
```

4

(24) English, like French, forms questions by T-to-C movement, but since English verbs usually don't go to T, English has to use a semantically vacuous *do* to do this.

(25) **Notice:** Normal English verbs cannot be fronted, and thus we can't ask questions with them alone. Modal auxiliaries and auxes, which begin higher up, *can* move up.

    a. * See you the door?

    b. * Turned on he the light yet?

    c.   Must you leave today?

    d.   Is he stupid?

    e. * Does he ballet?

    f.   Does he do ballet?

(26) Noting this data, note a similar fact about English: **the exact same verbs** that can't be moved up for a question also **can't take negation alone.** See the following:

    a. * You see not the door.

    b. * He turned not on the light yet.

    c.   You must not leave today.

    d.   He is not stupid.

    e. * He does not ballet.

    f.   He does not do ballet.

(27) English negation can be treated as its own phrase above the main VP. There always must be a verb (modal/aux/or dummy *do*) above *not*.

```
                    CP
                   /  \
                      C'
                     /  \
                    C    TP
                        /  \
                      DP    T'
                      /\   /  \
                     He   T    NegP
                         does  /  \
                             Neg'
                             /  \
                          Neg    VP
                          not   /  \
                              V'
                             /  \
                            V    DP
                            do   /\
                              ballet
```

(28) **Generalizations thus far:**

    a. Heads can rise up the clausal spine.

    b. Whether a head rises up is a language-specific rule (i.e. a parameter).

    c. Movement further to C can occur in some cirumstances (questions).

    d. French and Vata are two languages that happen to raise verbs up to V.

    e. English keeps verbs low.

    f. Because English has low verbs, main verbs cannot be inverted in questions or take negation.

2 Implications: V2

(29)   You ain't seen nothing yet.

(30)   Let's look at German. It seems to have a system similar to Vata, head-final, with verb movement.

    a.   Billy spricht Deutsch.
       Billy speaks German

       "Billy is speaking German"

    b.   Billy hat Deutsch gesprochen.
       Billy has German spoken

       "Billy has spoken German."

So verbs are underlyingly final, but the highest verb/aux raises up similar to French or Vata. *But German goes one step further...*

(31)   Notice that this generalization applies to *only* main clauses. Embedded clause *appear* not to have this raising.
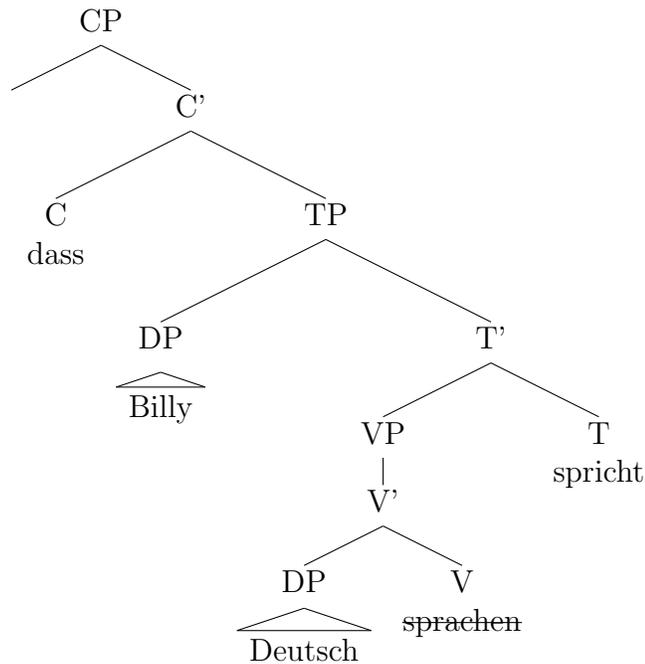
    a.   Ich glaube dass Billy Deutsch spricht.
       I   think that Billy German speaks

       "I think that Billy speaks German."

    b.   Ich glaube dass Billy Deutsch gesprochen hat.
       I   think that Billy German spoken   has

       "I think that Billy has spoken German"

(32)   **What if...** In the same way that the Vata aux stops the movement of a main verb, what the C is stopping the normal movement of the German verb? That would imply that **the German verb normally moves all the way to C!**

(33)   A normal German clause:
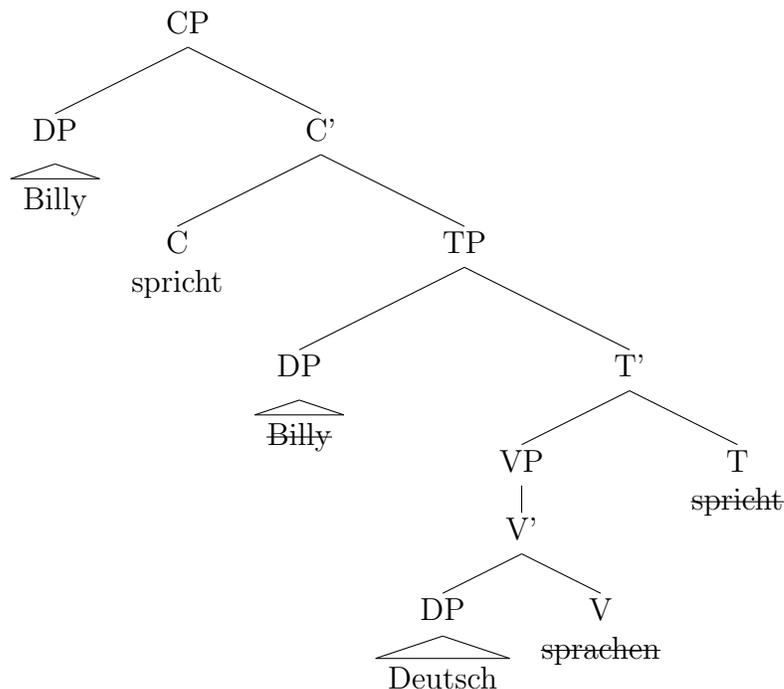
(34)   What an embedded clause would look like:

6

```
                              CP
                            /    \
                                  C'
                                /    \
                              C        TP
                            dass     /    \
                                   DP        T'
                                  /\\        /  \
                                Billy      VP      T
                                           |     spricht
                                          V'
                                        /    \
                                      DP        V
                                     /‾‾\    s̶p̶r̶a̶c̶h̶e̶n̶
                                   Deutsch
```

The presence of the complementizer *dass* "that" prevents movement into the CP.

(35) But why should the subject move up to the specifier of CP? This seems like an arbitrary stipulation. . .

(36) But really, this is a general syntactic rule of German: something *always* has to be in spec CP, doesn't actually matter what it is:

   a. Billy hat mit meinem Freund Deutsch gesprochen.
      Billy has with my   friend German spoken

      "Billy spoke German with my friend."

   b. Mit meinem Freund hat Billy Deutsch gesprochen.
      with my   friend has Billy German spoken

   c. Deutsch hat Billy mit meinem Freund gesprochen.
      German has Billy with my   friend spoken

(37) But there can only be *one* constituent up there:

   a. * Billy mit meinem Freund hat Deutsch gesprochen.
        Billy with my   friend has German spoken

   b. * Mit meinem Freund Deutsch hat Billy gesprochen.
        with my   friend German has Billy spoken

(38) Thus German, unless prohibited by a C, likes to raise Vs to T and then C. It also requires a constituent, *any constituent,* not just the subject to raise up with it.

(39) This phenomenon is called **a V2 construction**, (V2 = verb second). It is the distinguishing trait of most all Germanic languages.

(40) Old English scholars will know that English used to be a V2 language, although not anymore. We still have some remnants of V2 though in some constructions:

(41) a.   Never have I been to Japan.
     b. * Never I have been to Japan.

(42) Think also about English content questions:

   a.   Which books have you finished reading?
   b. * Which books you have finished reading?

We'll talk about these more in Chapter 12.

3   Implications: The VP-Internal Subject Hypothesis

(43)   Now look at some Irish sentences. We see that the V in Irish is before both the subject and object.

   a.   Bhfaca sé an madra.
        saw   he the dog
        "He saw the dog."

   b.   Phóg Máire an lucharachán.
        kissed Mary a   leprechan
        "Mary kissed a leprechan."

(44)   **Hypothesis:** Ah! Maybe Irish is like German, in that it moves its verbs to C, but *doesn't* move anything else to the specifier of CP.

(45)   **But this can't be the case!** We see this order even in clauses with a C!
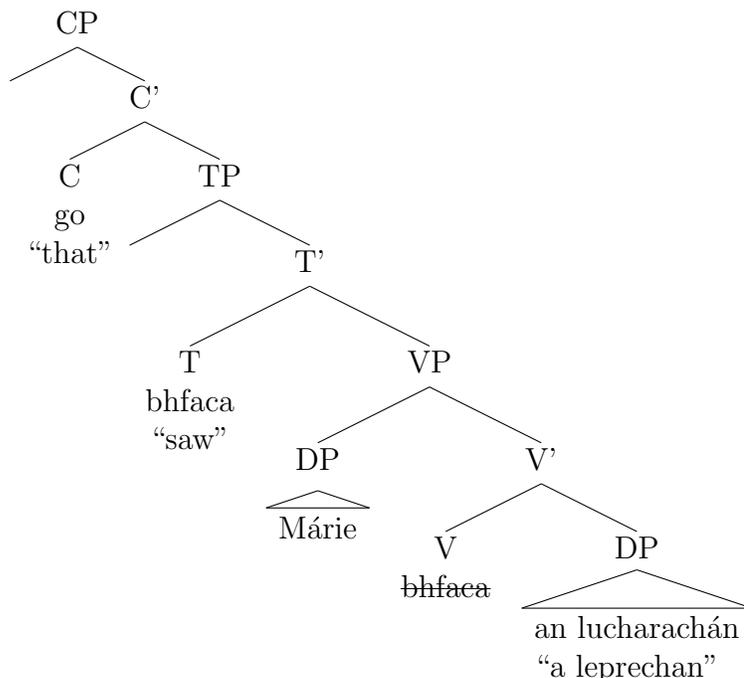
   a.   Ceapaim go   bhfaca sé an madra.
        I think that saw   he the dog
        "I think that he saw the dog."

(46)   But notice there's a node we haven't been using in our trees: **the specifier of VP**. What if Irish subjects go here?

(47)

```
                        CP
                         \
                          C'
                         /  \
                        C    TP
                       go      \
                     "that"     T'
                               /  \
                              T    VP
                           bhfaca  / \
                           "saw"  DP   V'
                                  /\  /  \
                               Márie V    DP
                                  bhfaca  / \
                                    an lucharachán
                                    "a leprechan"
```

(48)   It makes sense that a subject required by the verb should be generated in the VP. What if this is the case in all languages?

(49)   **VP-internal subject hypothesis:** Subjects are always generated in the specifier of VP. In languages like English with the EPP, these subjects *move* into the specifier of TP.

(50)   I would show more examples, but I don't want to use too much of the department's paper lmao