September 29 & October 1 summary (24.902)

1. French verb movement, continued

[This picks up where the previous summary left off.]

Some French sentences contain an auxiliary verb. Auxiliary verbs take VP complements:

(1) **Add this rule:**
V' --> V VP

(2) **Subcategorization properties of [V, +Aux]**
Auxiliary verbs subcategorize for VP complements (more accurately, for V, the head of a VP complement): [+ __ VP]

- In a sentence with an auxiliary verb, its the auxiliary verb that moves to I, not the main verb of the sentence:

(3) **It's the highest V that moves to I by rule** Error! Reference source not found.)
  a.   Marie   n'a   pas   __   parlé   français.
       Marie   *ne*-has not   spoken French

   'Marie hasn't spoken French.'
  b. *Marie ne pas a parlé français.

(4)   **Derivation of (3b)**
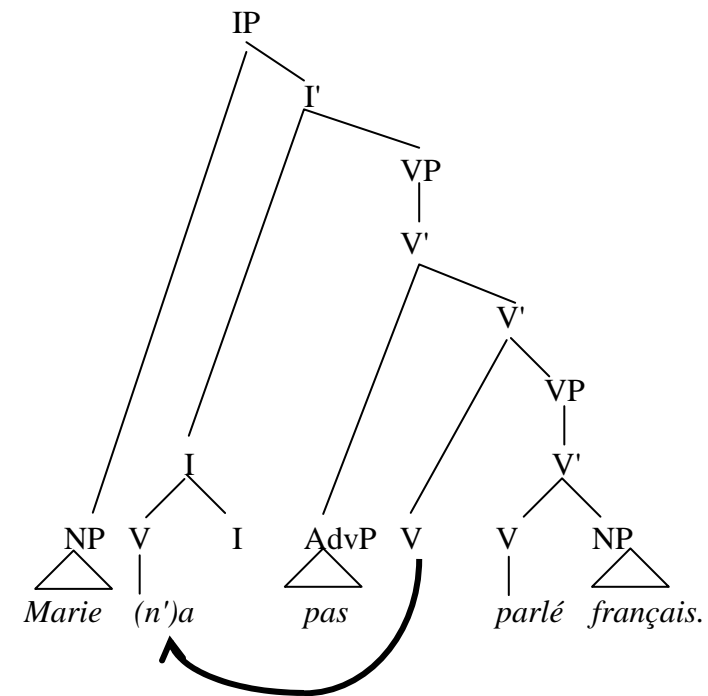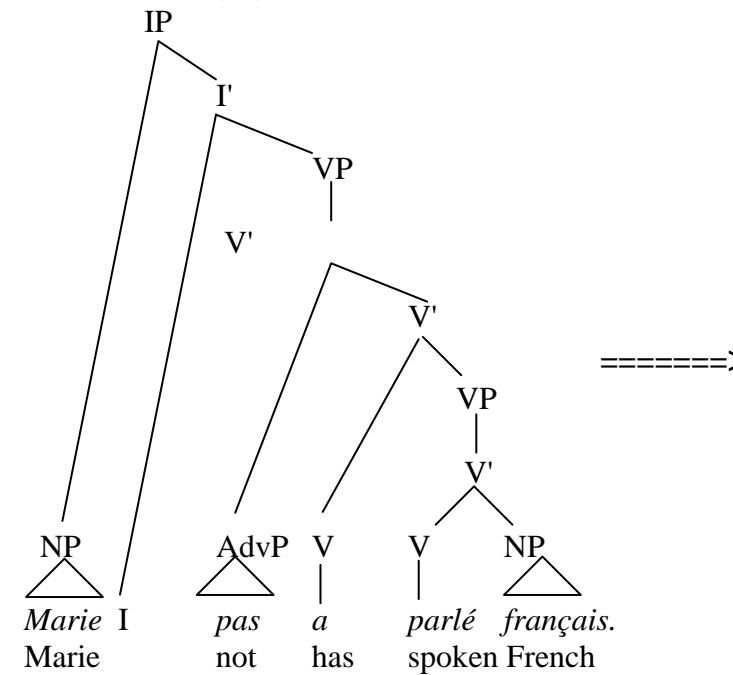
Now it's true that the auxiliary verb is the one that's finite. But the fact that it's the highest verb that moves also appears to be part of a wider generalization, called the Head Movement Constraint:

(5)   **Head Movement Constraint** (Hypothesis due to Lisa Travis, McGill University)
        A head H may move to another head X, only if HP is the complement of X.

We will come back to the Head Movement Constraint late in the course, when we discuss
something called "Incorporation".

1. Verb movement II: Precedes the verb the subject in Irish.

- In Irish (indicated by italics, since I don't have time to copy the words themselves!),
  the basic word order is VSO when there is no auxiliary verb.
- Crucially, when the sentence contains an auxiliary verb, the basic word order is Aux
  SVO (illustrated in (6b)), or Aux SOV in some dialects:

(6)   a. *Kissed Mary the leprechaun.*
        b. *Is Mary kissing the leprechaun.*

- This might remind you of French, where the highest of the verbs (the main verb if
  there's no auxiliary verb; otherwise the auxiliary verb) moves to I.

- We can give the Irish verb *the exact same analysis* as we gave to the French verb, if we
  somehow account for the position of the subject.

Answer: The subject of the sentence -- in French and in English -- does not originate in
its daughter-of-IP ("specifier of IP") position, but moves there from a position between V'
and I. What is this position? The daughter of VP, a.k.a. the **specifier of VP!**

(7)
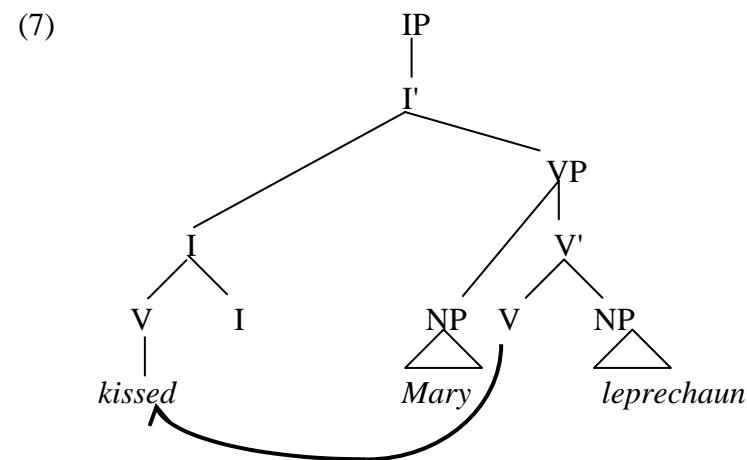
- We will argue that the subject of the sentence (at least non-dummy subjects) starts in
  the VP, as the daughter of VP.
- In English and French, this daughter of VP (specifier of VP) moves to become the
  daughter of IP (specifier of IP). In Irish, this does not happen.
- Note: if the verb in Irish moves to I, rather than to C (which would cause it to precede
  the subject even if the subject were in the specifier of IP position), we expect V to
  follow C. This is true:

(8)   *Said I that kissed Mary the leprechaun.*

Here is how three languages are classified according to the movement rules that do and do
not apply in them:

	ENGLISH	IRISH	FRENCH
non-auxiliary verbs move to I?	-	+	+
subject moves to Spec,IP?	+	-	+

**Wait a minute! What makes us think that English ever has a subject as the daughter
of VP (specifier of VP)?**

Some verbs in English subcategorize for a VP, and allow the subject of this embedded VP
to stay unmoved:[1]

(9)   **"Bare VP complements"**
        a. I saw [Bill leave the room].
        b. I made [Bill leave the room].

What makes us think that *Bill leave the room* is a VP and not an IP or CP? The obligatory
absence of a complementizer and the obligatory absence of the I-word *to*:

(10)   a.*I saw Mary to leave.
        b. *I saw for Mary (to) leave.

- By the way, APs and PPs may have subjects too, in which case they are often called
  "small clauses". More on this in a while:

(11)   **"Small clauses" - AP and PP have subjects**
        a. I consider [AP Bill very happy].
        b. I expect [PP you by my side at 10:00 sharp]!

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[1] We will learn a lot more about subject raising very soon.

2. Side remark: what's a "specifier"?

- Phrases appear to contain a position for a non-modifier sister to a single-bar projection, which is sometimes filled by movement, and sometimes "just there".

- This position is generally unique (i.e. a phrase does not have more than one[2]) and is always higher than all modifiers (i.e. a daughter of the maximal projection).

- This position is called a **specifier**.

3. German

The point of discussing German verb placement in this class:

- German provides an argument for verb movement that is parallel to the numeral-quantifier stranding arguments for scrambling as movement (and for passive as movement).

- The verb moves, and may leave something behind.

Step #1: When German sentences are verb-first.

Facts about verb position:

- In embedded declarative clauses, the finite verb[3] comes last [(12a)].

- But in a matrix[4] yes/no question, the finite verb comes first [(12b)].

(12) a. Marie   denkt, dass die Frau   den Mann   sieht.
  Mary-SUBJ   thinks that   the woman-NOM   the man-OBJ sees
  'Mary thinks that the woman sees the man.'

  b. Sieht die Frau   den Mann?
    sees the woman-SUBJ the man-OBJ
    'Does the woman see the man?'

Facts about "separable prefixes":

- Some German verbs contain a prefix that is called "separable" in traditional descriptions of German. Often the prefix+root have an unpredictable, idiomatic reading, which suggests that they start as sisters.

- When a German verb with a separable prefix occupies the first position in a sentence, as it does in a yes/no question, its prefix is found in final position [(13b)]-- just where the entire prefix+verb unit would occur in an embedded declarative clause [(13a)].

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[2] This is not quite accurate, as we will see towards the very end of the course.

[3] The "finite verb" is the verb that has morphology for present or past tense, as well as agreement in person and number with the subject.

[4] *Matrix = main clause*

- Following the logic of our arguments from Japanese numeral-quantifier stranding, we hypothesize that the appearance of the separable prefix right where the verb otherwise occurs provides an argument that the verb has actually moved from that position to the initial position in the sentence.

(13)   a. Marie   denkt, dass   der Mann   das Licht   an-macht.
     Mary-SUBJ thinks   that   the man-SUBJ the light-OBJ on-makes
     'Mary thinks that the woman is turning on the light.'

     b. Macht die Frau das Licht   an?

(14)   a. ... dass   die Frau   den Brief   auf-gibt.
     ... that   the woman-SUBJ the letter-OBJ   up-gives
     '...that the woman is mailing[5] the letter.'

     b. Gibt die Frau den Brief auf?

Sentences with auxiliary verbs:

- When a yes/no question contains an auxiliary verb, it's the auxiliary verb that moves to the front of the sentence. This is reassuringly like the situation in French and Irish, where verb movement affects only the highest of a set of verbs in a clause:

(15)   a. Müssen wir das Licht an-machen?
     must   we the light on-make

    b. Hat die Frau   den Brief   auf-gegeben?
      has the woman-SUBJ the letter-OBJ up-given?

Basically, we're done arguing that that verb movement exists. But let's examine German in greater detail because it's interesting and relevant to the broader range of movement constructions that we will examine this semester. Also, we can give an argument that the German verb ends up -- not in I -- but in C. And we will discover the specifier of CP as an added bonus!

Step #2: Verb-second

- Famously, main-clause declarative sentences show "Verb-second" order (*V2*). The finite verb follows a constituent that is either the sentence topic or focus.[6] This means there are two movements involved in these sentences: (1) verb movement, and (2) topic or focus movement.

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[5] In class, I somehow lost track of the fact that *auf-gibt* just means 'mailed'. I think I said it means 'hand over', which is wrong. Sorry!

[6] Topic="old information", something already under discussion. Focus=something being contrasted with other possibilities. I am simplifying the real situation here. When the subject is first, it may be understood as Topic or Focus, but it can receive a more neutral interpretation as well. This

(16) a. <u>Den Mann</u>   <u>sieht</u> die Frau.
           the man-OBJ sees the woman-SUBJ
           'The woman sees the man.'

      b. <u>Jetzt</u> <u>sieht</u> die Frau   den Mann.
           now sees the woman-SUBJ   the man-OBJ
           'Now the woman sees the man

- Verbs with separable prefixes behave as expected. The prefix is left in final position when the main verb is the finite verb:

(17) a. Das Licht macht der Man an.
      b. Den Brief gibt die Frau auf.

- When an auxiliary verb is the finite verb, it's the auxiliary verb that shows V2 and the prefix+verb combination stays in final position.

(18) a. Das Licht müssen wir an-machen.
      b. Jetzt müssen wir das Licht an-machen.

Step #3: The verb moves to C

- Though school grammar books may tell you that German is V2 in main clauses and V-final in subordinate clauses, the truth is more complex. Some embedded clauses show V2 order as well [(19a)]

- An embedded clause with V2 must be the complement of a special class of verbs (verbs of saying and believing, mostly) and must have a special "subjunctive" verb form. We don't worry about these details here.

- What we do notice and worry about is the fact that embedded V2 is only found in the *absence* of the complementizer *dass* [(19c)]

- Also, the complementizer *dass* is obligatory whenever embedded V2 is not observed. V2 and *dass* are thus in complementary distribution [(19b) vs. (19d)]

(19) a. Hans sagte, er sei glücklich.   [V2]
          Hans said he is happy

      b. Hans sagte, dass er glücklich ist.   [V-final]
          Hans said   that he happy   is

      c. *Hans sagte, dass er sei glücklich.
              [also *...*er sei dass glücklich*; *...*er dass sei glücklich*; etc.]

      d. *Hans sagte, er glücklich ist.

Conclusion: The verb that moves is moving to C -- on condition that C is otherwise phonologically null (unpronounced).

Rules:
1. German C is null in matrix yes/no questions and clauses with topicalization or focus movement. Otherwise, C is *dass*.
2. Matrix declarative clauses have obligatory topicalization or focus movement. Some embedded clauses (as complement of particular verbs; in the subjunctive) also show obligatory topicalization or focus movement. Otherwise, there is no topicalization or focus movement. This feeds rule 1.
3. German V moves to C when C is phonologically null.

If you put this all together, you get as a result V-to-C movement in matrix yes/no questions (because C is null), matrix declarative clauses (because they show topicalization or focus, which entails a null C) and some embedded declarative clauses (same reason). In other embedded declarative clauses, you get *dass*, no topicalization or focus movement and no V-to-C movement.

[Note: If the Head Movement Constraint is correct, the verb probably moves to I and then V+I moves to C.]

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4. English

English has all sorts of odd properties and baroque ornaments in its verbal system, but it is worth spending a bit of time on it, if only for sentimental reasons. It was the first system analysed successfully in the modern study of syntax. See Chomsky's famous 1957 book *Syntactic Structures*, originally lecture notes for an MIT undergraduate course circa 1955.

Step #1: **There is a template. The various verbs must come in the order indicated in (20):**

(20) **Template for ordering of verbs**
      modals[7] > *have* > *be* > V

(21) a. John must have been writing letters at the time of his murder.
      b. *John has must be writing letters for a long time now.
                  [etc.]

[In Texas English, and elsewhere in the South, a few forms like *might could* appear, but in other dialects, only one modal verb, one *have*, and one *be* are possible per clause. Even in Texas English, not all combinations of two modals are found. If you search for "double modals" on Google, you will find lots of discussions of this.]

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[7] *must, can, could, shall, should, will, would, may, might, ought...* Modal verbs (*will. can*, *must*, *should...*) are a special class identifiable by the absence of 3sg agreement (*Mary can run. / *Mary cans run.*)

Step #2: **Each auxiliary verb, including I even when it's null, subcategorizes for a particular type of morphology on the head of its sister:**

(22)   a. [I +finite]   subcategorizes for [V +tense, +agreement]
        b. [V +modal] subcategorizes for [V +bare-stem]
        c. *have*   subcategorizes for [V +*en*]
        d. *be*   subcaregorizes for [V +*ing*]

The features like "+bare-stem" are just stand-ins for more technical terminology. Verbs with the +*en* feature are also called "past participles" (e.g. *written*). Verbs with the +*ing* feature are also called "present participles".

[**and here the week ended. More to come...**]