Week 12. Articulating the tree, and some Applied Syntax

A new FP

- `Fin aux/verb:`
  - V Adv, V neg
  - Moves to T.
- `Fin aux:`
  - (V) Adv (V), V neg (V)
  - Moves over adv not neg? (Opt.)
- `Fin verb:`
  - (V) Adv (V), neg V
  - Moves to T.

We need there to be a head here in the tree for the verb to move to...

That means we need to insert a whole phrase (heads always head something)...

Morphology on French verbs

- Past, varying persons: je mange-ai-s
  - ‘eat’
  - tu mange-ai-s
  - il mange-ai-t
- Fut, varying persons: je mange-er-a
  - ‘eat’
  - tu mange-er-as
  - il mange-er-a
- Tense morphology is inside and separate from subject agreement morphology.
- Kind of looks like after tense, another, subject-agreeing morpheme is attached...

Reminder: Motivating AgrOP

- `Fin aux/verb:`
  - V Adv, V neg
  - Moves to T.
- `Fin aux:`
  - (V) Adv (V), V neg (V)
  - (Opt.) Moves to T.
- `Fin verb:`
  - (V) Adv (V), neg V
  - Moves over adv not neg??

We need there to be a head here in the tree for the verb to move to...

That means we need to insert a whole phrase (heads always head something)...

AgrOP

- AgrOP, Object agreement phrase.
- Don’t forget, this is French we’re talking about here. In French, V moves to T.
- As the verb moves up to T, it has to stop in AgrOP (the Head Movement Constraint requires it), forming successively more complex heads.
  - V
  - AgrO-V
  - T=[AgrO+V]
- And why does the object have to move to SpecAgrOP? To get accusative Case.

AgrSP?

- AgrOP, Object agreement phrase.
- AgrSP, Subject agreement phrase?
- Pleasingly symmetrical!
- Complex heads:
  - V
  - AgrO-V
  - T=[AgrO+V]
  - AgrS=[T=[AgrO+V]]
Split-INFL

- The assumption of this structure is sometimes referred to as the “Split-INFL” hypothesis; the inflectional nodes have been “split” into subject agreement, tense, and object agreement.
- Reminder: AgrSP+TP+AgrOP in the era before the “Split-INFL” was often referred to as INFLP or IP. We’ve called it “TP” (perhaps confusingly, we were really talking about IP before).

Adopting the Split-INFL hypothesis

- Lots of good syntax has been done both adopting the Split-INFL hypothesis (trees contain AgrSP, TP, AgrOP) or not (trees contain only TP, a.k.a. IP).
- For many things, it doesn’t matter which you choose—analyses can be directly translated into a Split-INFL tree or vice-versa.
- Where it doesn’t matter, it doesn’t matter, but sometimes it matters. (On the final, for example)

Split-INFL

- In recent literature, almost everything you read will make this assumption, that cross-linguistically, the clause is minimally constructed of these projections, generally in this order:
  - CP
  - AgrSP
  - TP
  - AgrOP
  - VP

The EPP & NOM

- We said before the T needs a specifier (at SS), that’s the essential content of the EPP. Plus, we said before that this is where NOM is assigned.
- Now there is AgrSP as well.
- AgrSP is responsible for NOM.
- In a symmetrical world, seems like AgrSP should be responsible for NOM.
- So, now that (kind of mysterious) double motivation for moving to SpecTP has been clarified. The subject has to move to both SpecTP and SpecAGrSP, but each movement happens for a different reason. T for EPP, AgrSP for NOM.

A word about the PP

- Actually, there is one place where we haven’t unified Case assignment, namely the oblique Case that is assigned to the complement of P.
- For now (this whole semester), we’ll just leave it at that.
- P can assign oblique Case to its sister, although V cannot assign accusative Case to its sister.
  - So DPs that are objects of prepositions don’t need to go anywhere, they’re fine where they are.
- Sometimes the distinction is made between structural and inherent Case:
  - Structural Case (NOM, ACC) is assigned by movement to someplace in the structure (SpecAgrOP, SpecAGrSP).
  - Inherent Case is assigned in place, e.g., by P.
Moving away from English

- Recall that the model of language we’re working with is one in which languages are for the most part the same, but differ in the settings of certain parameters, such as order between object and verb. What are possible parameter settings?

Moving away from English

- We’ve seen a couple, but the only way to discover what they are is to look at how other languages differ.
- Recall, for example, the V-to-T parameter that differentiated French from English.

Japanese

- Taroo-ga ano hon-o kat-ta.
  Taro-NOM that book-ACC buy-PAST
  ‘Taro bought that book.’
- Taroo-ga ano hon-o kat-ta no?
  Taro-NOM that book-ACC buy-PAST Q
  ‘Did Taro buy that book?’
- Hanako-ga [Taroo-ga ano hon-o kat-ta to] omotteiru.
  H.-NOM T.-NOM that book-ACC buy-PAST that thinks
  ‘Hanako thinks that Taro bought that book.’

Japanese

- As in English, nominative case (ga) is assigned to the DP in the specifier of TP, accusative case (o) is assigned to the sister of V.
  (Or, in terms of Split-INFL?)
- Does the verb move to T? Tough question. Notice that it doesn’t have to to get the word order right.

Japanese

- Japanese appears to be quite strictly head-final. The head of an XP comes after the complement.
- We can draw the structure of a Japanese tree like this, using the same system, only with head-final structures.
- (I drew this series of slides for a previous lecture preceding the introduction of the split-INFL hypothesis—what do we think about AggSP and AgrOP in Japanese?)

Japanese

- Taroo-ga ano hon-o kat-ta.
  Taro-NOM that book-ACC buy-PAST
  ‘Taro bought that book.’
- ano hon-o Taroo-ga kat-ta.
  that book-ACC Taro-NOM buy-PAST
  ‘Taro bought that book.’
- How might this come about?
  - The [c]riterion dictates that the object ano hon-o starts out as the sister of V. Like in What did I buy?
Japanese

- Ano hon-o Taroo-ga kat-ta.
  'Taro bought that book.'

- This must start out the same way as Taroo-ga ano hon-o kat-ta.
- Thus ano hon-o must move to where we see it. Scrambling.
- So where does it go?

Korean

- Korean is in many respects structurally very similar to Japanese; strictly head-final, allows scrambling, has Case marking.

- Chelswu-ka ku chayk-ul ilk-ess-ta.
  Chelswu-NOM that book-ACC read-PAST-DECL
  'Chelswu read that book.'

Korean negation

- Chelswu-ka ku chayk-ul ilk-ess-ta.
  Chelswu-NOM that book-ACC read-PAST-DECL
  'Chelswu didn’t read that book.'

- Chelswu-ka ku chayk-ul an-ilk-ess-ta.
  Chelswu-NOM that book-ACC NEG-read-PAST-DECL
  'Chelswu didn’t read that book.'

- Chelswu-ka ku chayk-ul ilk-ci anh-ess-ta.
  Chelswu-NOM that book-ACC read-CI NEG.do-PAST-DECL
  'Chelswu didn’t read that book.'

The standard analysis of this is that scrambled arguments move to adjoin to TP—like quantifiers do. Same kind of movement as QR.
Korean negation

- Chelswu-ka ku chayk-ul anh-ess-ta.
  Chelswu-NOM that book-ACC NEG-read-PAST-DECL.
  'Chelswu didn't read that book.'

- If this is the DS for the Korean "short negation," how do we get the right word order?
- We could head-move the verb up the tree to order?

- Suppose that the DS is the same, except that we now have a special "nominalized" form of the verb (cf. reading, perhaps).
  'Yesterday Chelswu didn't read that book.'

- Suppose that ilk-ci doesn't move to Neg.
  'Yesterday Chelswu didn't read that book.'

- See how we might analyze this?

Korean negation

- Chelswu-ka ku chayk-ul ilk-ci anh-ess-ta.
  Chelswu-NOM that book-ACC read-DECL NEG-PAST-DECL.
  'Chelswu didn't read that book.'

- At SS, we have a tense morpheme (-ess) which needs to attach to a verb.

- But since ilk-ci didn't move to an (and in fact probably doesn't count as a verb anymore, but as a noun), there is no verb in the area.

- Hence we insert do (in Korean, ha), which gets contracted as anh.

- Actually, in more literary Korean it is also possible to find an uncontracted form that looks like ...ilk-ci ani ha-ess-ta.

- Just like English...

Korean negation

- Chelswu-ka ku chayk-ul ilk-ci anh-ess-ta.
  Chelswu-NOM that book-ACC read-DECL NEG-PAST-DECL.
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Dutch

- Let's shift gears a bit and look at some Germanic languages. Like Dutch (this works for German too). What's the word order? Is it head-initial? Head-final?

- Wim koopt het boek.
  Wim buys the book.
  'Wim buys the book.'

- ...dat Wim het boek koopt.
  ...that Wim the book buys
  ‘...that Wim buys the book’

- Dutch main clause sentences are not SVO...

- Dat boek kocht Wim gisteren.
  that book bought Wim yesterday
  ‘That book Wim bought yesterday.’

- Gisteren kocht Wim dat boek.
  yesterday bought Wim that book
  ‘Yesterday Wim bought that book.’
When there is an auxiliary, the auxiliary goes second, and the verb goes last.

Gisteren heeft Karel dat boek gekocht

‘Yesterday Karel bought that book.’

and when embedded, they both go at the end…

…dat Karel gisteren dat boek gekocht heeft.

‘…that Karel bought that book yesterday.’

What’s happening here?

Compare:

Has Bill gone to the movies?

I wonder if Bill has gone to the movies.

It appears that in main clauses the tensed verb moves to C; in embedded clauses it doesn’t.

Like in English questions…

So, is Dutch head-initial or head-final?

By now we should be able to tell what VP, TP, and CP look like.

Dutch appears to be head-final in VP and TP, but head-initial in CP.

The (finite) verb moves from V to T and then to C in matrix clauses

Then something moves into SpecCP. It could be the subject...

The (finite) verb moves from V to T and then to C in matrix clauses

Then something moves into SpecCP. It could be the object...
Dutch V2

- When C is filled (in an embedded clause, with dat), the verb moves only to T and nothing moves to SpecCP.

V2

- So another parameter of variation between languages seems to be whether V moves to C and requires SpecCP to be filled (“V2”).
- English has a little bit of what appears to be “residual V2” with negatives.
- Never had I seen such a thing.
- Under no circumstances will I buy that book.
- There are complications with treating this like V2 in German and Dutch (can you think of them?) which will be addressed in Syntax II.

VSO: Reminder about Irish

- Irish: VSO, Aux SVO.
  - Phóg Máire an lucharachán.
  - kissed Mary the leprechaun
  - ‘Mary kissed the leprechaun.’

- Tá Máire ag-pógáil an lucharachán.
  - Is Mary ing-kiss the leprechaun
  - ‘Mary is kissing the leprechaun.’

We might have also analyzed this as V-to-T-to-C (like German but without the filled SpecCP), but for...

VSO order in Irish

- There seem to be cases when C is filled and the order is still VSO—so the verb doesn’t move to C.
  - An bhfaca tú an madra?
  - Q See you the dog
  - ‘Did you see the dog?’

- Duirt mé gur phóg Máire an lucharachán.
- Said I that kissed Mary the leprechaun
- ‘I said that Mary kissed the leprechaun.’

VSO in Std. Arabic

- Standard Arabic seems to be VSO like Irish, but can provide clearer evidence for this idea that VSO leaves the subject lower than the standard (English-type) subject position.

- Std. Arabic: Allows both VSO and SVO orders.
  - ra?a-u l-?awlaad-u Zayd-an
    saw-3S the-boys-NOM Zayd-ACC
    ‘The boys saw Zayd.’ (VSO)
  - l-?awlaad-u ra?a-w Zayd-an
    the-boys-NOM saw-3PL Zayd-ACC
    ‘The boys saw Zayd.’ (SVO)
VSO in Std. Arabic

- ra? a l-?awlad-u Zayd-an saw-3s the-boys-NOM Zayd-ACC
  ‘The boys saw Zayd.’ (VSO)
- l-?awlad-u ra? a-w Zayd-an the-boys-NOM saw-3PL Zayd-ACC
  ‘The boys saw Zayd.’ (SVO)
- Notice that the verb agrees with the subject in the SVO order—in the VSO order the verb just carries 3sg agreement.

SVO/VSO order in Std. Arabic

- That is, there is agreement marking where the subject is in SpecTP.
- Where there is nothing (or pro Agr) in SpecTP, the agreement comes out as (a default) 3sg.
- This looks like an example of Spec-head agreement. Features are checked for identity.

SVO/VSO order in Std. Arabic

- What is AgrSP after all?
- What is the EPP?
- Do we need to say that Arabic (or Irish) is a “non-EPP” language, or make use of pro Agr?

SVO/VSO order in Std. Arabic

- Spec-head agreement is usually considered to be responsible for agreement between subject and verb (via participation of Agr).
- C has [+wh] feature which needs to match with a feature of its specifier.
- Spec-head agreement is often taken to be, broadly speaking, a kind of “feature sharing” configuration.

And back to little v...

- John gave the book to Mary.
- Recall that this is the structure that we came up with to get the word order right, and to comply with X-bar theory.
- We determined there must be a “little v”, a light verb, to which the V moves overtly. This little v assigns the Agent [3]-role. So English has a v in its lexicon that assigns the Agent [3]-role.
- A somewhat radical idea occurs...

VP shells

- Let’s go back and consider VP shells a bit in connection with unaccusatives.
- The ice melted.
- The boat sank.
- The door closed.
- The ice, the boat, the door are all Themes, suggesting that the verbs are unaccusative—the arguments start in object position.
VP shells

- So far, so good.
- Now, Bill melted the ice.
- The ice is still Theme. The verb is still melt.
- Uniform Theta Assignment Hypothesis (UTAH) (Baker 1988): Two arguments which fulfill the same thematic function with respect to a given predicate must occupy the same underlying (DS) position in the syntax.
- So the ice must still be a complement of the verb at DS.

VP shells

- Bill melted the ice.
- So, something like this, where the main verb moves up to the light verb (which we had evidence for in ditransitives).
- Later, Bill will move to SpecTP, SpecAgrSP for Case and EPP reasons.
- Why does V move to v? We'll assume that it does this for a reason analogous to why V moves to T (for French verbs, say). Might be universal, actually: “v needs a V to move to it”.

Back to the radical idea...

- Bill ate the sandwich
- Well, we already saw essentially what it would look like. It looks just like Bill melted the ice.
- v assigns Agent to Bill, V (eat) assigns Theme to the sandwich.
- Also note: The subject is still in “SpecVP” except that we’ve sharpened our picture of what “VP” is. A “VP” with an Agent is really a vP and a VP.
Bill lied.

- In fact, things get weirder...
- Consider Bill lied.
- That’s got an Agent, so it’s got a v.
- So, it could look like this.
- But lie is really (also?) a noun, right? Is this a coincidence?
  - (How about Bill danced, Bill walked, Bill sneezed, …)

The sandwich was eaten

Let’s think about passives.

- What happens in a passive?
  - The Agent role is suppressed.
  - Accusative Case is no longer available to the object.

- What does that mean in these terms, considering v to be the thing that assigns Agent and AgrOP to be the thing that gives Case?

The sandwich was eaten

So, we end up with something like this, where AspP is where vP used to be.

- (Since passive is actually a different sort of thing from aspectual have eaten and be eating, sometimes people call this Voice?)

And back to ditransitives

- In the split-INFL system, we have something like this:
  - The V moves to v, and eventually to AgrO.
  - AgrO assigns Case, and it should only be compatible with transitive verbs, so v needs to get close enough to verify that they match (we can think of this as AgrO “pulling up” the v) (Perhaps source of BG?)
  - The object moves to SpecAgrOP to get/ check Case.
  - The subject moves up to TP and SpecAgrSP.

Bill lied?

- One proposal out there about this kind of verb is that it really is built from the noun.
- That is, we have v+N, which would come out to mean something like ‘Bill was the agent of a lie.’
- If that’s right, it means v really is its own thing, and moreover, it’s responsible for giving these verbs their verby nature.

The sandwich was eaten

Sure, no vP, no AgrOP.

- Everything else follows as before:
  - The sandwich needs Case.
  - SpecTP needs to be filled.
  - The sandwich moves to SpecTP.
  - The sandwich moves to SpecAgrSP.

- Burzio’s generalization is now that there is an AgrOP if and only if there is a vP. They come and go together.