WHAT MOVES WHERE AND WHY?

18-22
January
Our Roadmap

- The relationships that nodes have to each other
- Overview of different types of movement
- What negation teaches us about movement
- Deep structure, surface structure, and the VP-Internal Subject Hypothesis
- NPs, Case, and movement
- Questions and movement
An incredibly important syntactic principle!
A node c-commands its sisters and all the daughters (and granddaughters and great-granddaughters, etc.) of its sister. [Carnie, Chapter 4, EX 40]

- E.g., A c-commands B and all of B’s daughters, granddaughters, etc. but G and H c-command only each other (as do I and J).
- G and H symmetrically c-command each other.
- A and B also symmetrically c-command each other, but A asymmetrically c-commands B’s descendants.

Symmetric c-command: A symmetrically c-commands B, if A c-commands B and B c-commands A. [EX 44]
Asymmetric c-command: A asymmetrically c-commands C and D (and all of C’s and D’s descendents. A c-commands C/D but C/D do not c-command A. [EX 45]

C-command stands for constituent command. The term was formally codified into syntactic theory in Tanya Reinhart’s 1976 MIT dissertation.
Two Types of Movement

Head Movement
- Heads move to other head positions.
  - $V \Rightarrow T, T \Rightarrow C$
- A head moves to the closest c-commanding head position. Heads don’t skip over heads.
  - (We’ll soon see this codified as the Head Movement Constraint.)
  - So, we don’t get $V \Rightarrow C$ movement, for instance.

Phrasal Movement
- Phrases move to specifier positions.
- Subjects move to Spec, TP.
  - As forecasted, subjects will start off in Spec,VP.
- WH phrases move to Spec, CP.
- Topicalized constituents move to Spec, CP.
- There are also conditions on phrasal movement. In particular, we’ll soon see conditions on WH movement.
Verb Raising (an example of head movement)

Phóg Máire an lucharachán.  Irish
kissed Mary the leprechaun
‘Mary kissed the leprechaun.’ [Carnie, Ch. 10, EX 1]

Je mange souvent des pommes.  French
I eat often of the apples
‘I often eat apples.’ [EX 2]

I often eat apples. (not verb raising)  English
Verb Raising vs Affix Lowering

V ⇒ T Movement: Move the head V to the head T. [EX 9]

Verb Movement Parameter: All verbs raise (French) or only auxiliaries raise (English). [EX 16]
- In either case, there is a c-command relationship. Either the verb raises to a c-commanding head, T, or T lowers to a head that T c-commands, V.

- “Principles” and “Parameters.”
  - The principle is that languages have a way of combining tense information with verbs.
  - The parameters indicate how this occurs.

- French is parameterized to have the verb move up to the tense position and English is parameterized to have the tense information hop down to the verb.

- NOTE: We’ll see a lot more verb raising when we get to Verb–Second Languages.
(17) English
What Negation Teaches Us

• In English, main verbs do not precede negation (as illustrated by this sentence).
  • *I eat not apples. We get the dummy do in the (a) sentence below.
  • Dummy do patterns like auxiliaries and precedes negation.
  • If the auxiliary is in T, this pattern suggests that dummy do is as well.
  • And, this pattern suggests that negation is between T and the main verb.
• In French, the main verb precedes negation when there is no auxiliary. This suggests that the main verb and the auxiliary occupy the same position. Again, evidence of V ⇒ T in French.
The Locality Constraint on Theta Role Assignment: Theta roles are assigned within the projection of the head that assigns them (i.e. the VP or other predicate).

- [This is from an older version of this textbook. The author has abandoned discussing this idea for reasons that we’ll learn about in a few weeks.]

- This condition establishes the initial position of the subject as inside the VP, and thus, closer to the verb than if the subject starts off in the specifier of TP. This is our principle.

  - Some languages have the Extended Projection Principle (EPP) parameter, and subjects move to the specifier of TP.
    - English, French
    - The EPP says that something (overt or null) must occupy Spec,TP.
  - Other languages are parameterized to leave the subject inside the verb phrase.
    - Irish
Phóg Máire an lucharachán. kissed Mary the leprechaun ‘Mary kissed the leprechaun.’

Je mange des pommes. I eat of the apples ‘I often eat apples.’
Languages vary in how they form questions.

E.g., Irish has a question particle. An bhfaca tú an madra. Q see you the dog “Did you see the dog?” [EX 32]

English inverts the auxiliary with the subject.

The auxiliary is in T and it moves to C.

The [+Q] feature of C is what motivates the movement of the auxiliary to C in English.

- Carnie presents this feature as a null question complementizer.
- So, Irish has an overt question complementizer and English has null one.
- Principle: Languages have a question complementizer.
- Parameter: That complementizer can be overt or null.

HEAD MOVEMENT! T moves to a c-commanding head, which is C.

If something occupies C or Spec,CP, there is no T ⇒ C. Embedded clauses don’t have T ⇒ C.
I asked whether/if/when you have squeezed the toilet paper.
• I asked whether/if/when have you squeezed the toilet paper.

• As we will see in a couple weeks, languages can behave differently in main and embedded clauses.
“Is” is an exception

- Forms of *be* pattern like auxiliaries even when they’re main verbs.
  - **Are** main verbs in the T position?
  - **Have** main verbs occupied the T position?
  - *Do* main verbs are in the T position?
  - **Do** main verbs occupy the T position?
- If *be* sits in T, then this is the pattern we expect.
- And we have the negation facts.
  - Main verbs **are** not in the T position.
  - Main verbs **do** not occupy the T position.
  - *Main verbs occupy not the T position.*
DO-SUPPORT

- Since main verbs in English do not occupy T, they shouldn’t move to C. This would mean that they hop over T and go to C.
  - Not allowed! Heads don’t skip heads.

- Do main verbs occupy T?
  - *Occupy main verbs T? (This is the French order.)

- HENCE, do-support.
  - Do is a dummy, but it’s really useful.

- Do-insertion/support: When there is no other option for supporting inflectional affixes, insert the dummy verb do into T. [EX 39]
NP (DP) MOVEMENT

*The Locality Constraint on Theta Role Assignment:* Theta roles are assigned within the projection of the head that assigns them (i.e. the VP or other predicate). [Hang onto this idea. It’s going to get more complex…]
John is likely to leave.

It is likely that John will leave.

- These pairs are analogous to:
  - Cherlon seems to enjoy good food.
  - It seems that Cherlon enjoys good food.

- Likely has a CP complement.

- This particular head Adj c-selects for a CP complement.
The adjective theta-marks its complement.

The verb theta-marks its subject.

Is undergoes V ⇒ T movement

VP-Internal Subject
The obvious possible answer is EPP. The matrix clause needs a subject in Spec,TP. BUT, we can’t say:

(1) It is likely John to leave.

This sentence satisfies EPP but it’s still bad. We have to say:

(2) It is likely that John will leave.

The semantic subject of the lower clause moves to the syntactic subject position of the higher clause in order to get Case.

The Case Filter: All DPs must be marked with a Case in order to be pronounced. [modified version of Ch 11, EX 34]

We’ll return to infinitives, but we now have an explanation for why the embedded subject of (3) is silent.

(3) The syntax professor planned to make homemade tortillas. NO NOMINATIVE CASE from non-finite T. No Case – No Say!
Nominative case is assigned to the specifier of TP ... when T is finite.

- The finiteness condition explains the pattern we see in other kinds of infinitives.
  - Cherlon plans [Cherlon] to cook an amazing Superbowl meal.
    - The subject of the lower clause can’t get case from the non-finite T, and is forced to be silent.
  - Cherlon expects him to cook an amazing Superbowl meal.
  - *Cherlon expects he to cook an amazing Superbowl meal.
    - The semantic subject of the embedded clause is in the accusative case. It can’t get nominative from the nonfinite T.

Accusative case is assigned to the sister of V or sister of P.

- Given the above discussion, there is an obvious question about the position of him. (Again, hang on to that...)

Genitive case is assigned to the specifier of NP (her book) or sister of P (e.g. that book of hers)
Case is a relationship between a head and a phrase.

A head checks/assigns (the particular terminology varies, but the underlying concept is the same) case to a phrase that occupies a particular structural position.

Particular heads are born with a particular case to give away.

The head gives that case to its complement or to the phrase that occupies its specifier position.

You will likely encounter the phrasing “spec-head feature checking” in the literature. This relationship between a head and the phrase in its specifier extends beyond case.

IMPORTANT: There is a distinction between abstract case and morphological case.

- All NPs are argued to have abstract case, which is assigned in the syntax. Sometimes that case is morphologically expressed and sometimes it’s not.
- She bought new shoes./The students really like them.
  - The subject is nominative in both sentences and the object is accusative, even though we can’t necessarily see it.
Some languages use an infinitive where English uses a finite clause.

**Welsh**

Meddyliodd Aled [i Mair weld y gêm].

thought.3sg Aled to Mair see.infin the game

‘Aled thought that Mair had seen the game.’

[Understanding Syntax, Ch.3, EX 13]

In some languages, the infinitive form of the verb is conjugated.

**European Portuguese**

Será difícil eles aprovar-em a proposta.

be. future difficult they approve.infin-3pl the proposal

‘It will be difficult for them to approve the proposal.’

[Understanding Syntax, Ch.3, EX 34]
In very general terms, languages that have morphological case fall into one of two categories.

- System 1: Nominative-Accusative
- System 2: Ergative-Absolutive

We’re very familiar with Nominative-Accusative languages.

- The subject is nominative
- The object is accusative
- There can be other cases, such as dative or genitive but nominative and accusative are the main ones.

In Ergative-Absolutive languages, the case of a noun depends on the transitivity of the verb…in general.

- If the verb is transitive, the subject is ergative and the object is absolutive.
- If the verb is intransitive, the subject is absolutive.
- This is a broad generalization. Ergative-Absolutive languages are really complicated.
### Nominative

- **A** = subject of transitive
- **S** = subject of intransitive
- **O** = object of transitive

### Ergative

- West Greenlandic
- Oli sinippoq.
- Oli.abs sleep
  - ‘Oli sleeps.’

#### Intransitive

- ətləg-ən l’o-na-gtəkwatg’e
  - father-abs face-cause-freeze3sg
  - ‘Father got face frost-bitten.’

#### Transitive

- ətləg-e ən-in l’ulqəl rə-gtəkwannen.
  - father-erg 3sg-poss face.abs cause-freeze
  - ‘Father suffered frost-bite on his face.’

### Absolutive

- Oli-p neqi nerivaa.
- Oli-erg meat.abs eat
  - ‘Oli eats meat.’ [Theories of Case, Ch. 6, EX 1]

### NOTE

- There is a more extensive discussion of case systems in Understanding Syntax, Chapter 6.
Case and the Passive Problem

a. He was drafted.

b. That delectable meal was devoured.

- Given what we’ve just learned, the subject is nominative in both sentences.
- Passives are a clear example of a disconnect between deep structure and surface structure – AND of the disconnect between the case of an NP and its semantic role.
  - The semantic object (the NP with the theme/patient theta role) occupies the syntactic subject position on the surface and it has nominative case.
What Motivates the Movement?

- Maybe EPP. We need something sitting in Spec, TP.
  - But why can’t we just insert an expletive?
  - *It was drafted him./*It was devoured that delectable meal.
- We saw that case motivated movement in “raising” infinitives, and it looks like that’s what’s going on with passives.
  - The semantic object has nominative, suggesting that it didn’t get accusative in its initial position as sister to the verb.
- **Burzio’s Generalization:** A predicate that has no external theta role cannot assign accusative case. [Carnie, Chapter 11, p.302]
  - In essence, the passive morpheme (the passive participle) steals the external theta role (which would be assigned to the subject) and robs the verb of its ability to assign accusative case.
  - The case-needy object is forced to move to subject position.
• Object moves to subject position and is assigned nominative by finite T.
• Head to specifier case assignment.

Remember that *be* moves to T.

• The passive thief takes the external theta role and accusative case away from the verb.
What about when the agent present in a *by* phrase.

- He was drafted by a Big 10 school.
- The delectable meal was devoured by the hungry professor.

Thoughts???
Part 1. Please draw a tree for each of the following sentences. Your trees should show case assignment [every NP needs case], tense, all movement operations (follow the VP-Internal Subject Hypothesis), and Q features when necessary. Remember that all clauses are CPs. You do not need to show theta role assignment. You also needn’t use DPs here, but you will on Monday. If you’re already in DP mode, go for it. Oh – and no □□ please.

1. The students are eager to learn the conditions on movement operations.
   Recall a parallel example
2. What kind of sake did Cherlon ask the bartender to bring her?
   Yes, you have to show case here. Propose something.
3. It must be the case that the best students at this highly selective institution decide to major in linguistics.
4. There are several students staring at these sentences.
   You can thank John for 3/4…do so and then think carefully.
5. Misato wanted for him to eat durian.
   You can thank Malia for this.
6. Which book has the professor claimed that she hopes to finish during mid-term break?
7. Who planned to attend the protest that the leaders on campus are organizing?
   Think about this one…and then think some more
8. The media find the Kardashian family to be a source of salacious news.
   And don’t forget case here. Propose something
9. When will the students understand how to properly draw increasingly complicated trees?
10. Cherlon can predict which mistakes the young syntacticians will make.
11. Several expensive paintings were commissioned.
   I know, we haven’t discussed passives, but they were in the readings. Try it out…
12. Which students were convinced to complete complicated syntax projects?
   …and this one
13. Most people are not very tall.

Part 2. If you’ve drawn the tree for (13) according to the model presented in the Carnie reading, something should strike you as amiss. What challenge does this structure present?

Part 3. Explain why the following sentences are ungrammatical.
*It seemed the flight to be delayed.
*It hopes the students will draw beautiful trees.