WHAT MOVES WHERE AND WHY?

16-18

January
Our Roadmap

- Introducing DPs
- The relationships that nodes have to each other
- Overview of different types of movement
- Negation and movement
- Deep structure, surface structure, and the VP-Internal Subject Hypothesis
- DPs, Case, and movement
- Questions and movement
- NP is the complement to D, even if there is no overt determiner
- Still allows for one determiner and multiple modifiers of a noun...
- ...and models possession.

(Carnie, Ch.7, ex 4)
Possessive morpheme is the head of the entire DP.

The possessor is a DP that occupies the specifier of the entire DP.

(Carnie, Ch 7, EX 9&10)
A node c-commands its sisters and all the daughters (and granddaughters and great-granddaughters, etc.) of its sister. [Carnie, Chapter 4, EX 40]

- 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. 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.

Reinhart was an important linguist, whose work is often referenced in both the syntactic and semantic literature.

https://en.wikipedia.org/wiki/Tanya_Reinhart
C-COMMAND IS VERY IMPORTANT FOR MOVEMENT OPERATIONS
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.
  - Head Movement Constraint

- E.g. No $V \Rightarrow C$ movement without stopping through $T$. 
PHRASE MOVEMENT

- Phrases move to specifier positions.
- Subjects move to Spec, TP.
  - 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 vs Affix Lowering
(an example of head movement)

$V \Rightarrow T$ Movement: Move the head $V$ to the head $T$.  
[EX 9]

Verb Movement Parameter: All verbs raise (Irish, 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, $V$.  

**Verb Raising**

Phóg Máire an lucharachán. *Irish*

kissed Mary the leprechaun

‘Mary kissed the leprechaun.’ [Carnie, Ch. 10, EX 1]

**Affix Lowering**

Je mange souvent des pommes. *French*

I eat often of the apples

‘I often eat apples.’ [EX 2]

I often eat apples. *English*
“Principles” and “Parameters”

- The principle is that languages have a way of combining tense information with verbs.

- The parameters indicate how this occurs.

- Irish/French: Parameterized to have the verb move up to the tense position.

- English: Parameterized to have the tense information hop down to the verb.
French

11) CP
   \n   C'
   \n   C
   \n   Ø
   \n   DP
   \n   Je
   \n   T
   \n   Tₚresent
   \n   VP
   \n   V'
   \n   AdvP
   \n   souvent
   \n   V
   \n   mange
   \n   DP
   \n   des pommes
This happens even when we don’t see verbal morphology — *They often eat apples.*
What Negation Teaches Us

• In English, main verbs do not precede negation.
  • *I eat not apples. Dummy do is in the (a) sentence below.
  • Dummy do patterns like auxiliaries and precedes negation – (c).
  • If the auxiliary is in T, this pattern suggests that dummy do is as well.
  • And, this suggests that negation is between T and the main verb.

• In French, the main verb precedes negation when there is no auxiliary.
  • Suggests that the main verb and the auxiliary occupy the same position. Again, evidence of V ⇒ T in French.

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<tbody>
<tr>
<td>a)</td>
<td>I</td>
<td>do</td>
<td>not</td>
<td>eat</td>
<td>Apples des pommes</td>
</tr>
<tr>
<td>b)</td>
<td>Je</td>
<td>ne-mange</td>
<td>pas</td>
<td>eaten</td>
<td>Apples des pommes</td>
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<tr>
<td>c)</td>
<td>I</td>
<td>have</td>
<td>not</td>
<td>pas</td>
<td>mangé</td>
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<tr>
<td>d)</td>
<td>Je</td>
<td>n’ai</td>
<td>pas</td>
<td>mangé</td>
<td>des pommes</td>
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The *ne-* isn’t in the tree in the textbook since it’s optional.

French: Main verb moves to T in the presence of Negation

The diagram illustrates the syntactic structure of a French sentence in the presence of negation, showing how the main verb moves to T in the tree.
Sidebar:
We’ll have a more detailed discussion later about auxiliaries. For right now, you can either start the Aux in T or start it in V and move it to T.
When there is no other option for supporting inflectional affixes, insert the dummy verb *do* into *T*.

[EX 39]
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 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.

- Yes, the wording is confusing. The EPP is a parameter and not a principle.
- The EPP says that something (overt or null) must occupy Spec,TP.
- English, French

Other languages are parameterized to leave the subject inside the verb phrase.
- Irish
Phóg Máire an lucharachán. 
‘Mary kissed the leprechaun.’

Je mange des pommes. 
‘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.
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.

  - Negation:
    - Main verbs *are* not in the T position.
    - Main verbs *do* not occupy the T position.
    - *Main verbs occupy not the T position.*
Since main verbs in English do not occupy T, they shouldn’t move to C. This would mean that they hop over T.

Not allowed! Heads don’t skip heads.

Do main verbs occupy T?

*Occupy main verbs T? (the French order)

HENCE, do- support.

Do is a dummy, but it’s really useful. 😊
NO DO-SUPPORT IN FRENCH: Main verb moves to T and then to C.
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 on to 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 and s-selects for a proposition.
The adjective assigns a theta role to its complement.

The verb assigns a theta role to its subject.

Is undergoes V ⇒ T movement
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.*

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]
- Important: Abstract Case does not necessarily = morphological case

We’ll return to infinitives, but we now have an explanation for why the embedded subject here is silent.
- The syntax professor planned to make homemade tortillas.

NO NOMINATIVE CASE from non-finite T.
Case in English

- 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 wants him to cook an amazing Superbowl meal.
- *Cherlon wants 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.
  - Exceptional Case Marking (ECM)
- **Accusative case** is assigned to the sister of V or sister of P.
  - There is an obvious question about the position of *him* on the previous slide. (Hang on to that…)  

- **Genitive case** is assigned to the specifier of DP the student’s book  
  - Possessive morpheme occupies the D head and assigns genitive to the specifier
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 phrase “spec-head feature checking” in the literature. This relationship between a head and the phrase in its specifier extends beyond case (e.g. WH movement).
IMPORTANT:
There is a distinction between abstract case and morphological case.

- All DPs 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].
Aled thought 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]
A Bit About Case Typology

Nominative-Accusative

In general...

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

Ergative-Absolutive

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.
West Greenlandic

Oli sinippoq.
Oli.abs sleep
‘Oli sleeps.’

Intransitive
atlág-ən l’o-nə-gtəkwatg’e
father-abs face-cause-freeze3sg
‘Father got face frost-bitten.’  
Chukchi (spoken in Siberia)

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

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<tr>
<th>Case System</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Nominative</td>
<td></td>
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<tr>
<td>A=subject of transitive</td>
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<tr>
<td>S=subject of intransitive</td>
<td></td>
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<tr>
<td>O=object of transitive</td>
<td></td>
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<tr>
<td>Ergative</td>
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<td>Absolutive</td>
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NOTE: There is a more extensive discussion of case systems in Understanding Syntax, Chapter 6.
a. He was drafted.
b. That delectable meal was devoured.

- 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.
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.

But…the semantic object has nominative, suggesting that it didn’t get accusative in its initial position as sister to the verb.
A predicate that doesn’t have a theta role to give to a subject cannot assign accusative case.

[A less technical version of what appears in Carnie, Chapter 11, p.302]

In essence, the passive morpheme (the passive participle) steals the 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.
• The passive thief takes the subject theta role and accusative case away from the verb.

• Object moves to subject position and is assigned nominative by finite T.

• Head to specifier case assignment.

• The tree in (44) looks different from the one in EX 45 in the reading. (44) explicitly illustrates that passive constructions have a form of *be* and the passive participle.

Remember that *be* moves to T.
What about when the agent is present in a *by* phrase?
- The star athlete was drafted by a Big 10 school.
- The delectable meal was devoured by the hungry professor.

- On this model, the agent is born in adjunct position.

- *The puppy was kissed by the policeman.*
C-command is an important structural relationship.

There is a distinction between head movement and phrase movement.

Languages are either verb-raising or affix lowering, but both operations involve a c-command relationship.

The VP Internal Subject Hypothesis states that the initial position of the subject is in the specifier of the VP.

The Case Filter provides an explanation for some kinds of movement – e.g. raising infinitives and passives.

DPs are argued to have abstract Case, even if it is not expressed with a morphological case.
Part 1. Draw a tree for each of the following sentences. Your trees should show case assignment [every DP needs case], tense, all movement operations (follow the VP-Internal Subject Hypothesis), and Q features when necessary. You do not need to show theta role assignment. Oh – and no triangles please.

1. The students are likely to learn the conditions on movement operations.
2. What kind of sake did Cherlon order during the celebratory dinner?
3. Which book has the professor claimed that she hopes to finish this evening?
4. Who planned to attend the protest that the leaders on campus are organizing?
5. Most Americans want the government shutdown to end.
6. Cherlon can predict which mistakes the young syntacticians will make. [Remember this one? 😊]
7. When will the students understand how to properly draw increasingly complicated trees?
8. Several expensive paintings were commissioned.
9. Which students were convinced to complete complicated syntax projects?
10. Most people are not very tall.

Part 2. If you’ve drawn the tree for (10) 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.