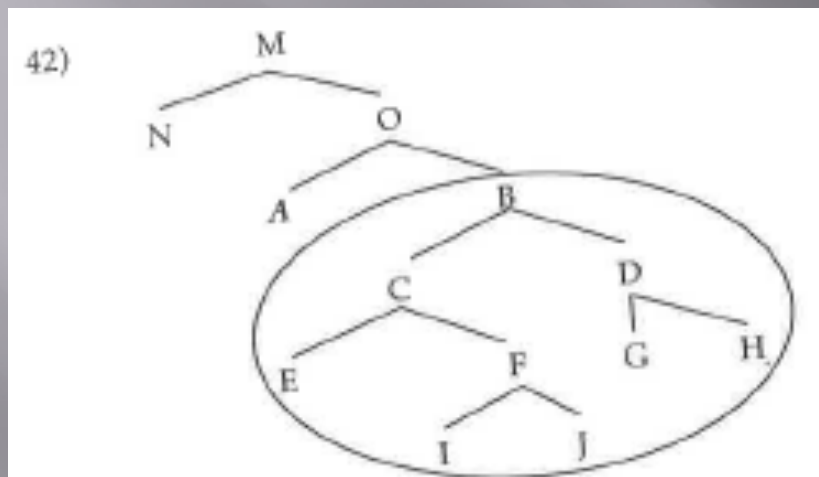# WHAT MOVES WHERE AND WHY?

17-19

January

Our Roadmap

- ✓ 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

C-Command

- **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]

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]

•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.

SIDEBAR ABOUT C-COMMAND

- 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.
  - This is codified as the **Head Movement Constraint.**
  - We don't get $V \Rightarrow C$ movement, for instance.

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 ⇒ *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]

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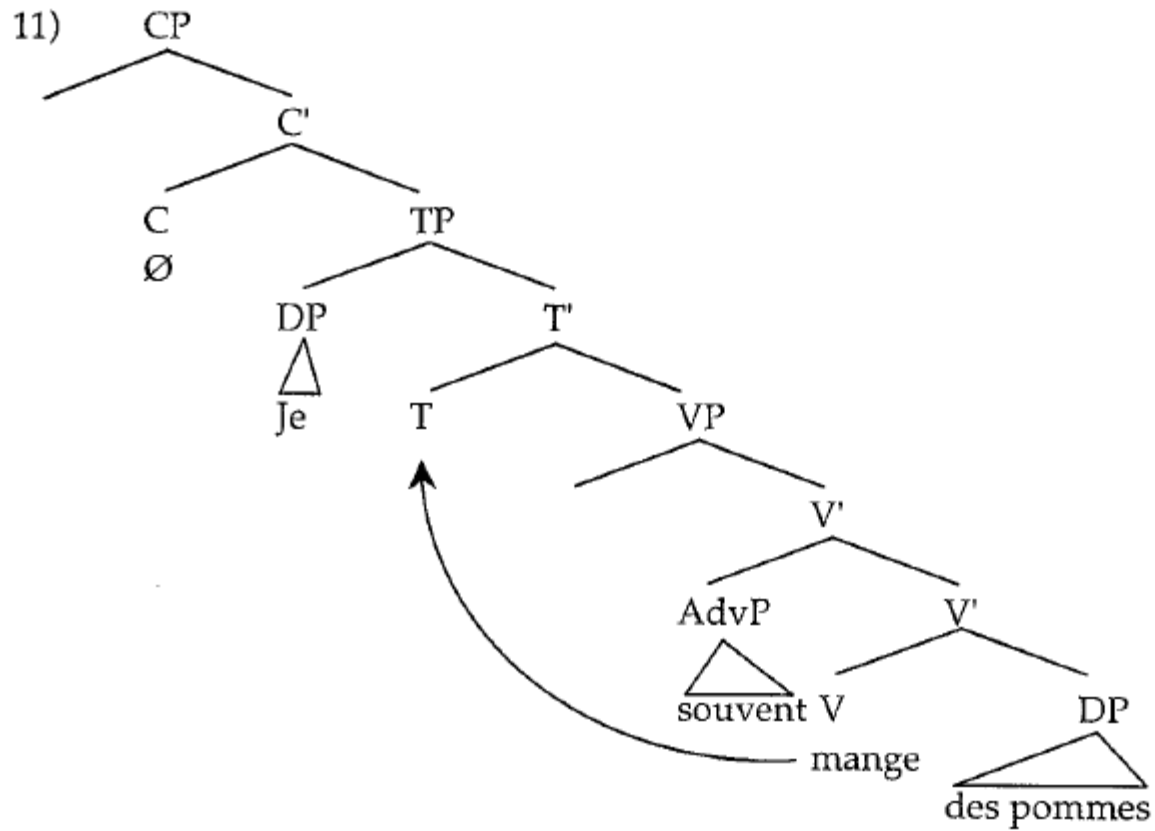'I often eat apples.'   [EX 2]

Affix Lowering

I often eat apples. (not verb raising)   *English*
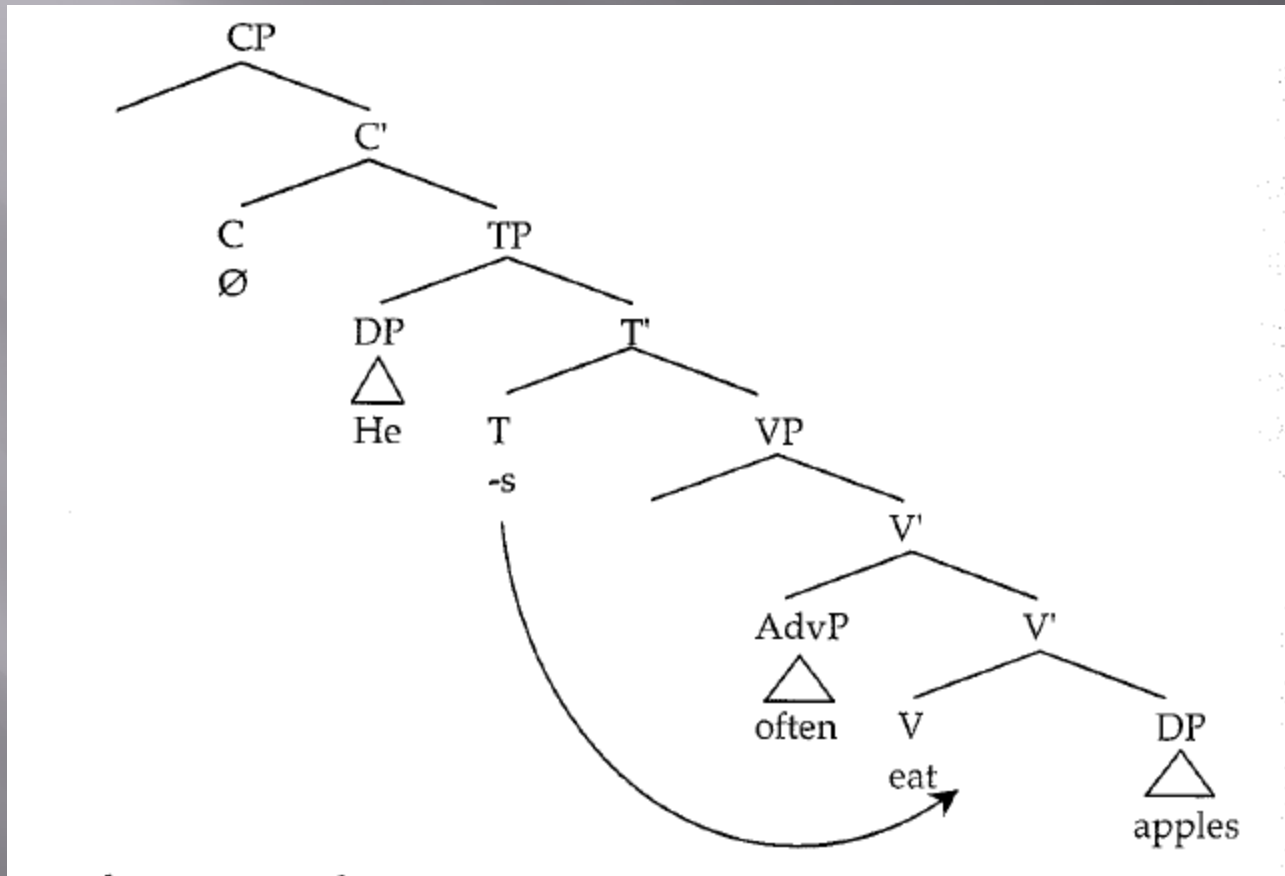
"Principles" and "Parameters"

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

❑ The parameters indicate how this occurs.

❑ Irish/French are parameterized to have the verb move up to the tense position.

❑ English is parameterized to have the tense information hop down to the verb.

11) CP → C' → C Ø, TP → DP (Je), T' → T, VP → V' → AdvP (souvent), V' → V (mange), DP (des pommes). Movement arrow from mange to T.

What Negation Teaches Us

- In English, main verbs do not precede negation.
  - *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.

a)	I	do	not	eat	Apples
b)	Je	ne-mange	pas		des pommes
c)	I	have	not	eaten	Apples
d)	Je	n'ai	pas	mangé	des pommes

(14)
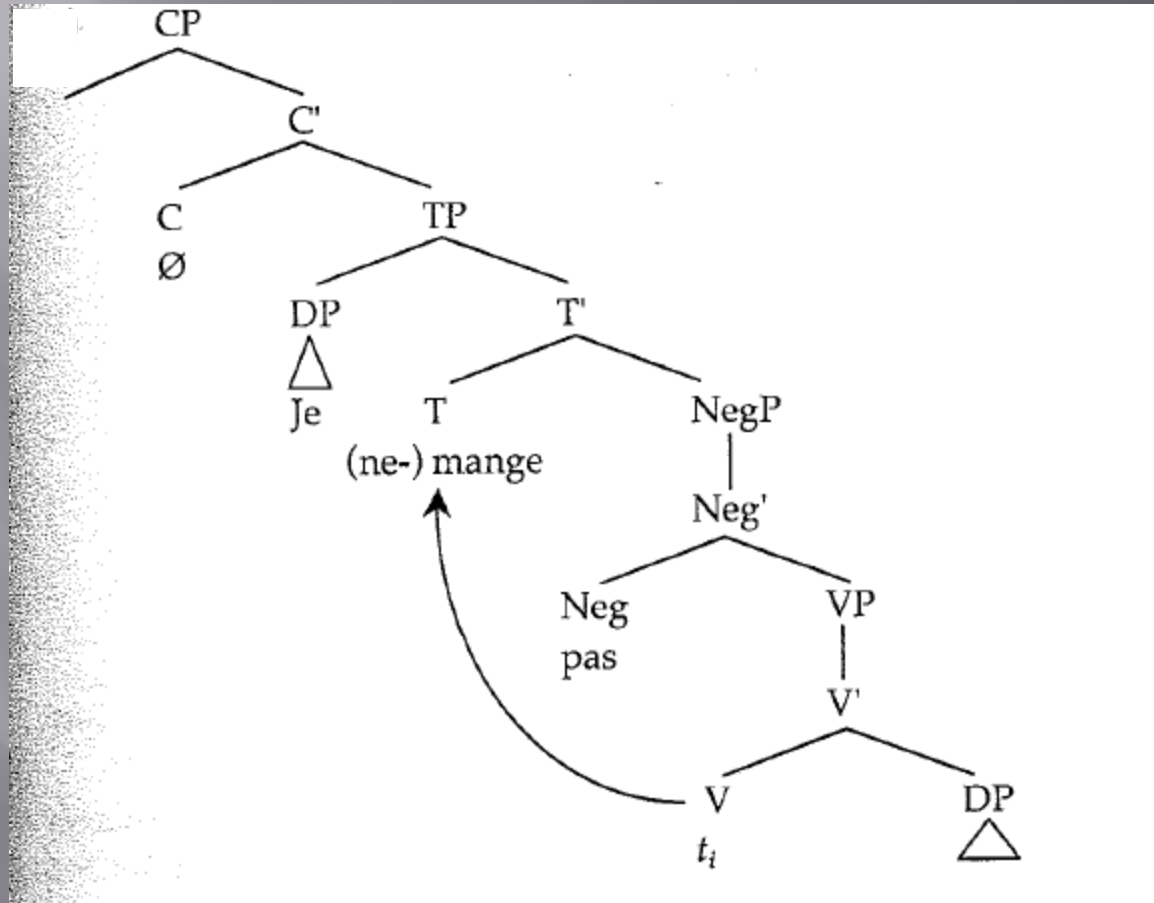
The VP-internal Subject Hypothesis

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**.

The EPP

- 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 **parameter**ized to leave the subject inside the verb phrase.
  - Irish

Irish vs French

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.'
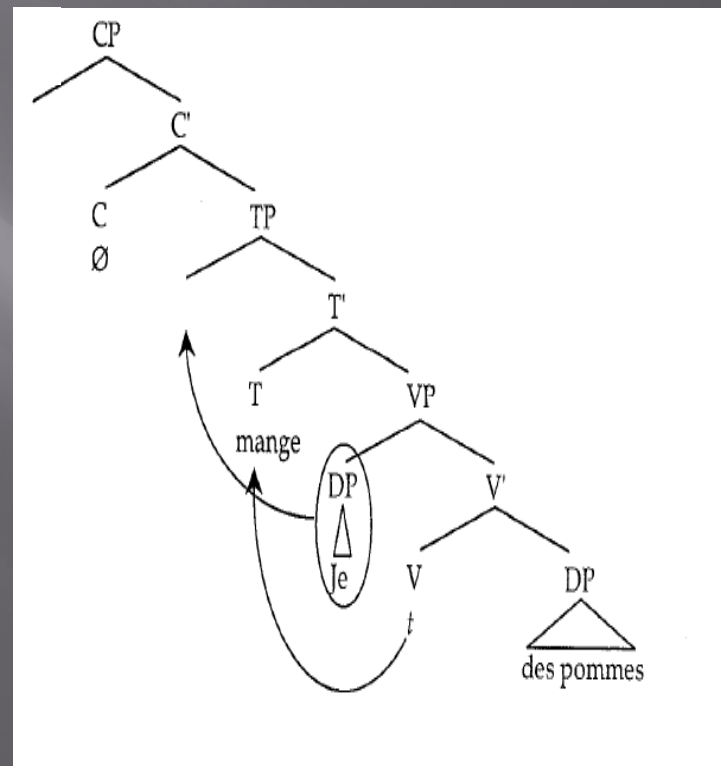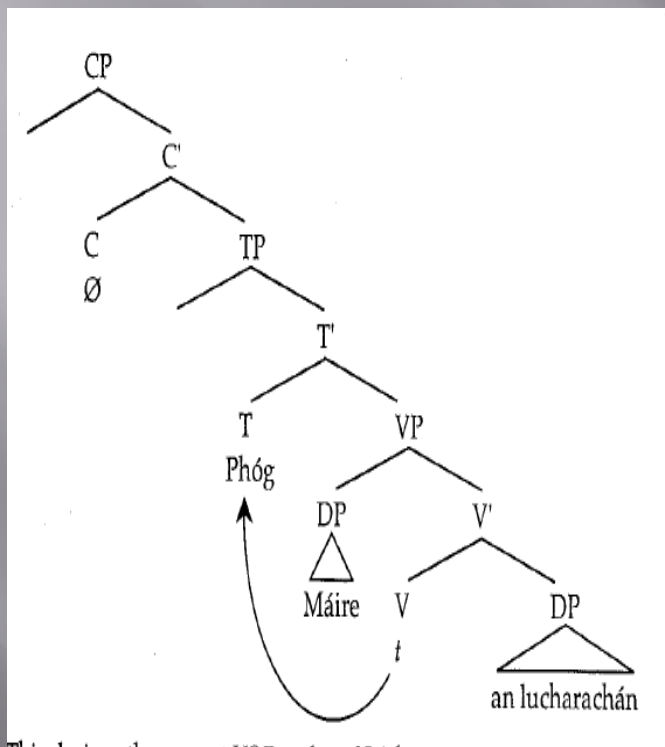
Questions: T⇒C Movement

- Languages vary in how they form questions.
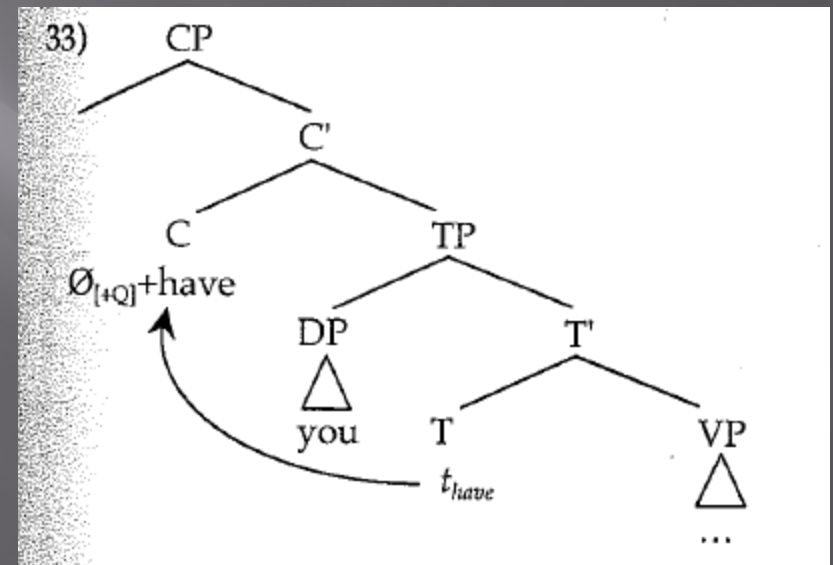- E.g., Irish has a question particle.

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.

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

[+Q]

- **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.

"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 there are negation facts.
  - Main verbs **are** not in the T position.
  - Main verbs **do** not occupy the T position.
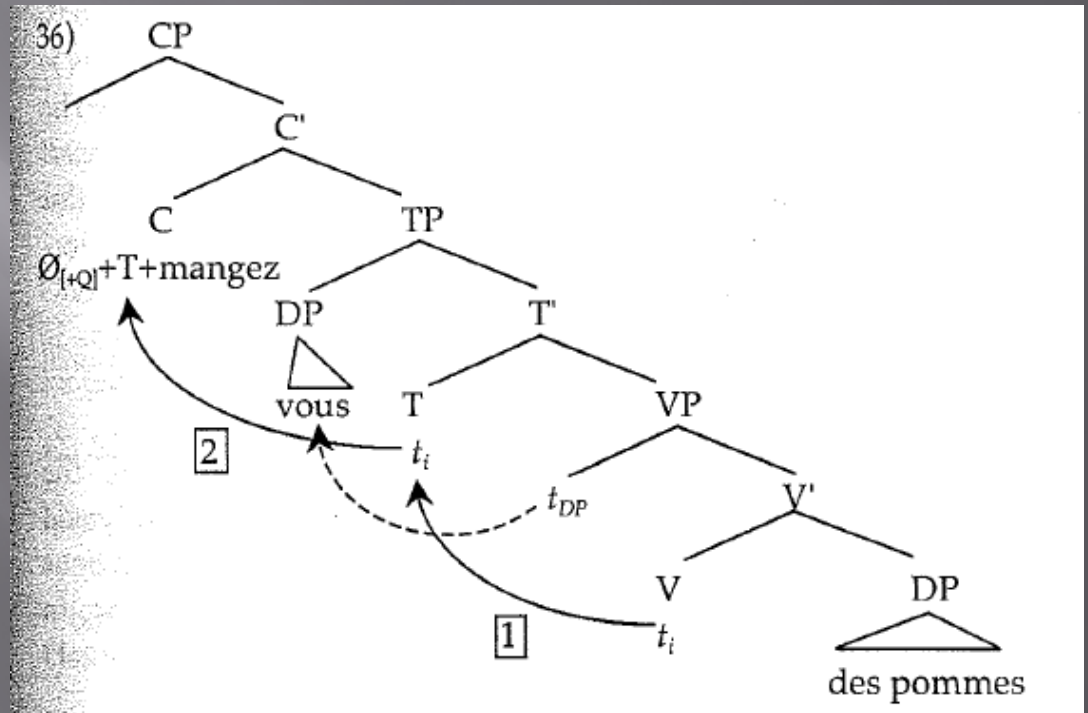 - *Main verbs occupy not the T position.

DO-SUPPORT IN ENGLISH

- 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? (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]

NO DO-SUPPORT IN FRENCH

36) Syntactic tree:
- CP
  - C'
    - C: Ø[+Q]+T+mangez
    - TP
      - DP: vous
      - T'
        - T: t_i
        - VP
          - V: t_i
          - V'
            - t_{DP}
   - DP: des pommes

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 on to this idea. It's going to get more complex…]

Is likely…

- 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.
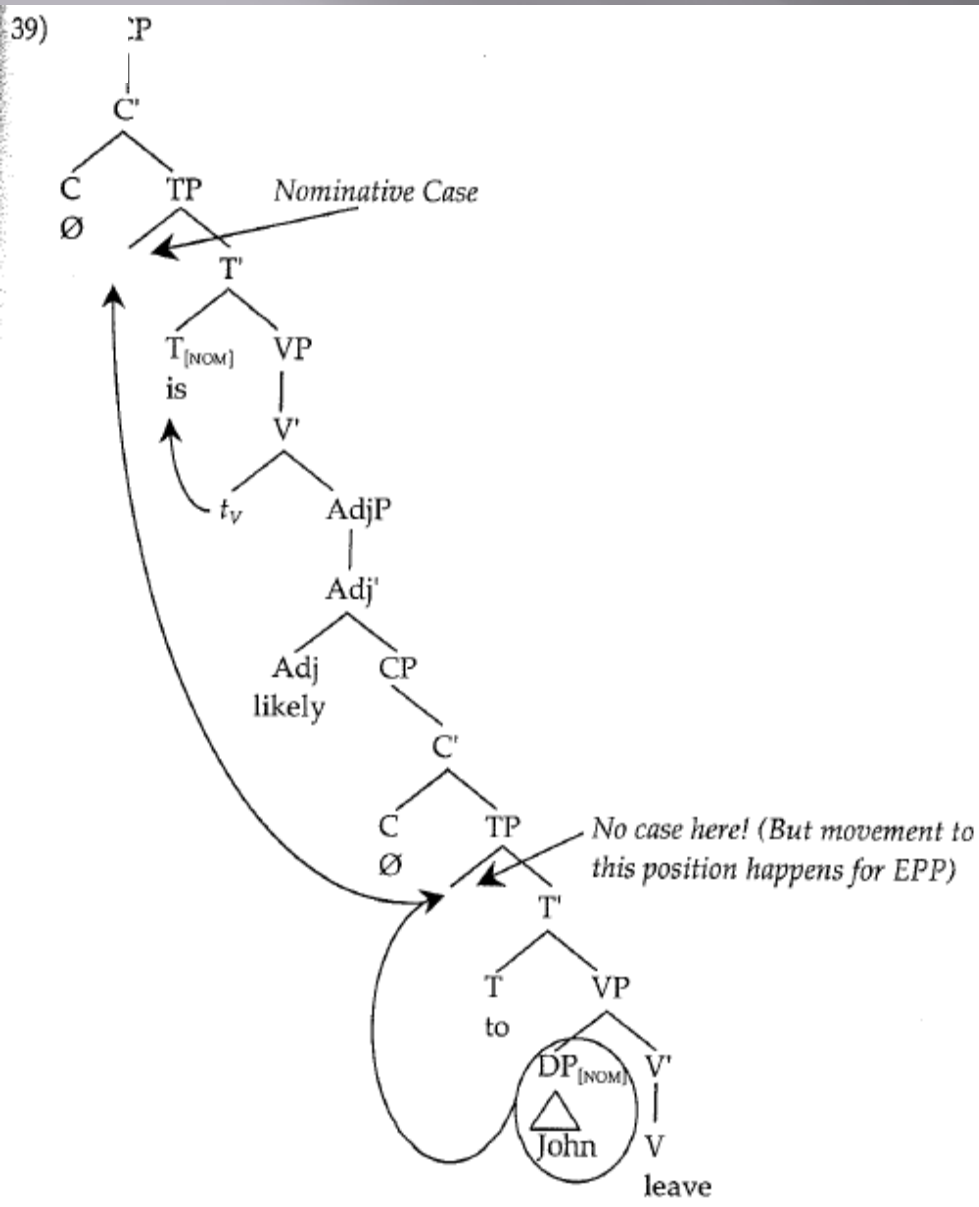- This particular head Adj c-selects for a CP complement.

7) CP tree diagram
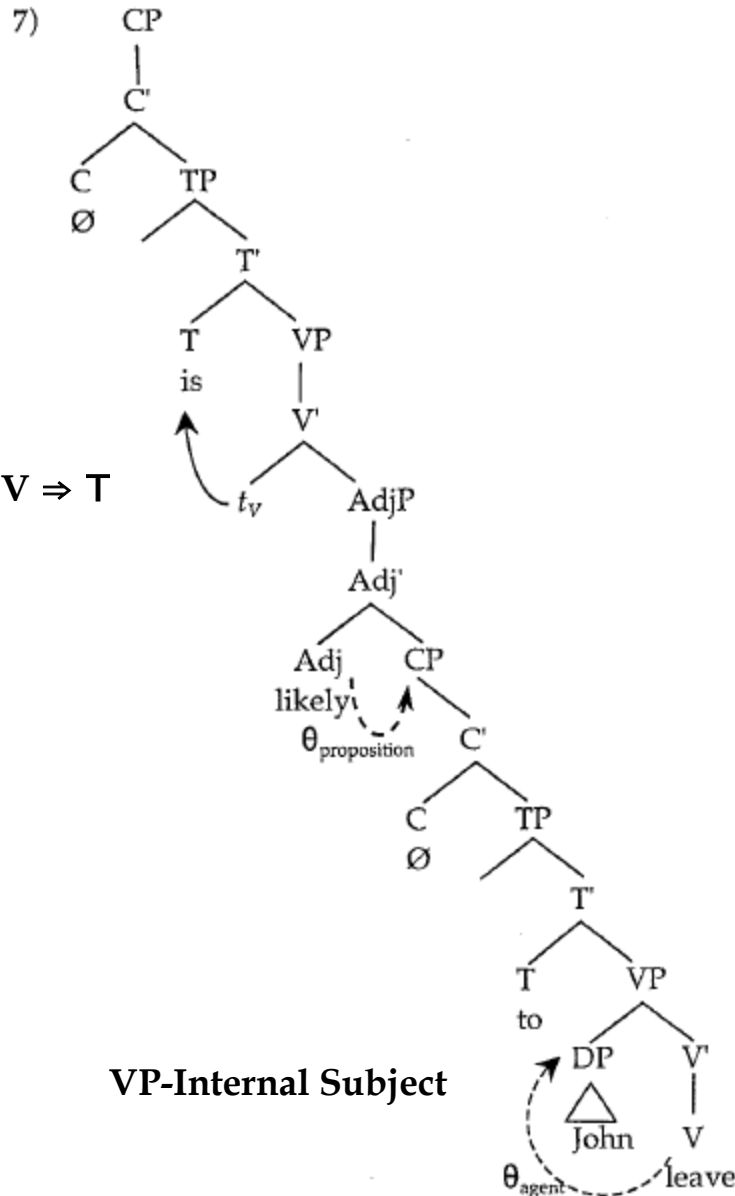
Is undergoes V ⇒ T movement

VP-Internal Subject

The adjective theta-marks its complement.

The verb theta-marks its subject.

Why does the subject move to the higher clause?

39)

- 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.

NO CASE – NO SAY!!!

- **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 = 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.

- **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 DP (*her book*) or sister of P (e.g. *that book of hers*)

More technically…

- 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.**

A very brief look outside of English

- 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]

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 b r o a d generalization. Ergative-Absolutive languages are *really* complicated.*

Nominative   **Accusative**

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

Ergative   **Absolutive**
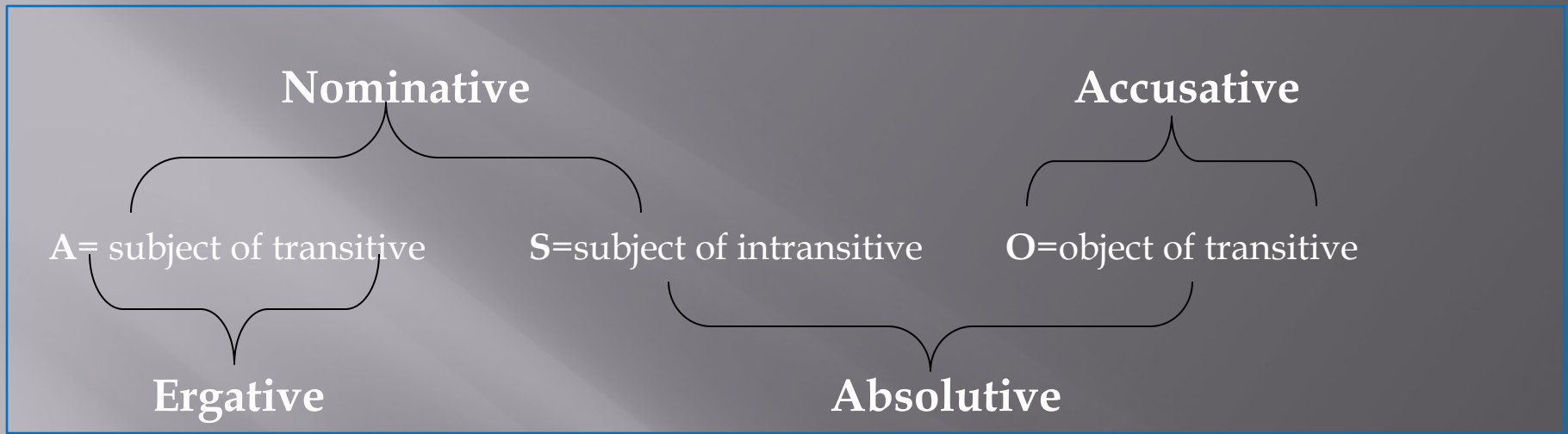
West Greenlandic
Oli   sinippoq.
Oli.abs sleep
'Oli sleeps.'

Intransitive
ətləg-ən   l'o-nə-gtəkwatg'e
father-abs   face-cause-freeze3sg
'Father got face frost-bitten.'

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

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

Chukchi (spoken in Siberia)

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.
- ❑ But…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 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 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.

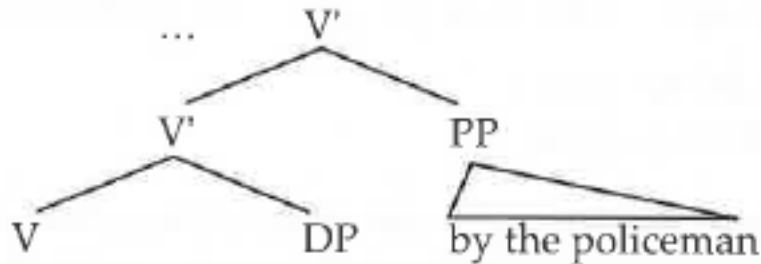

Remember that *be* moves to T.
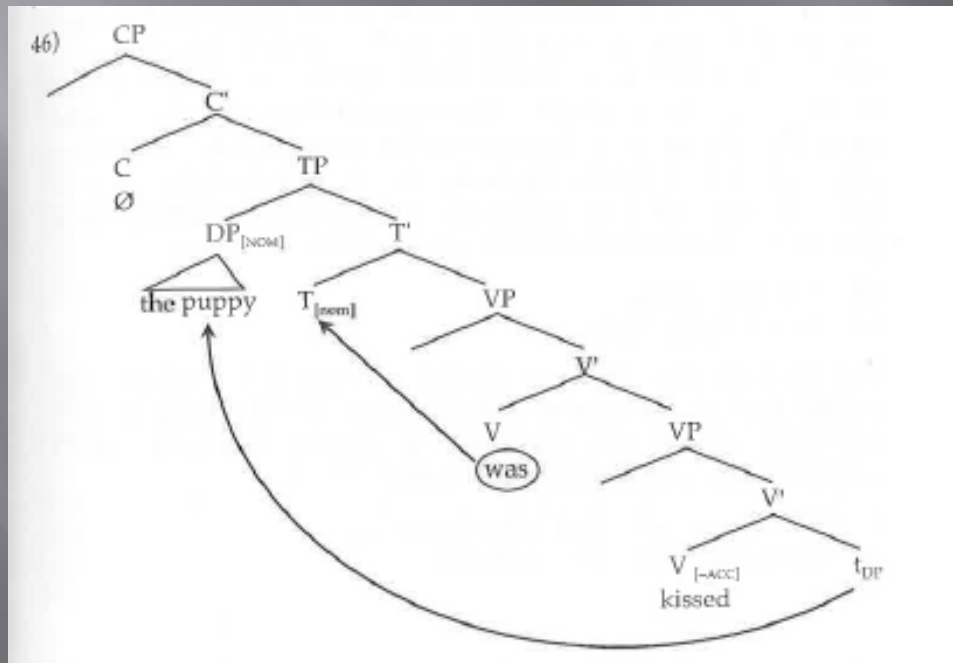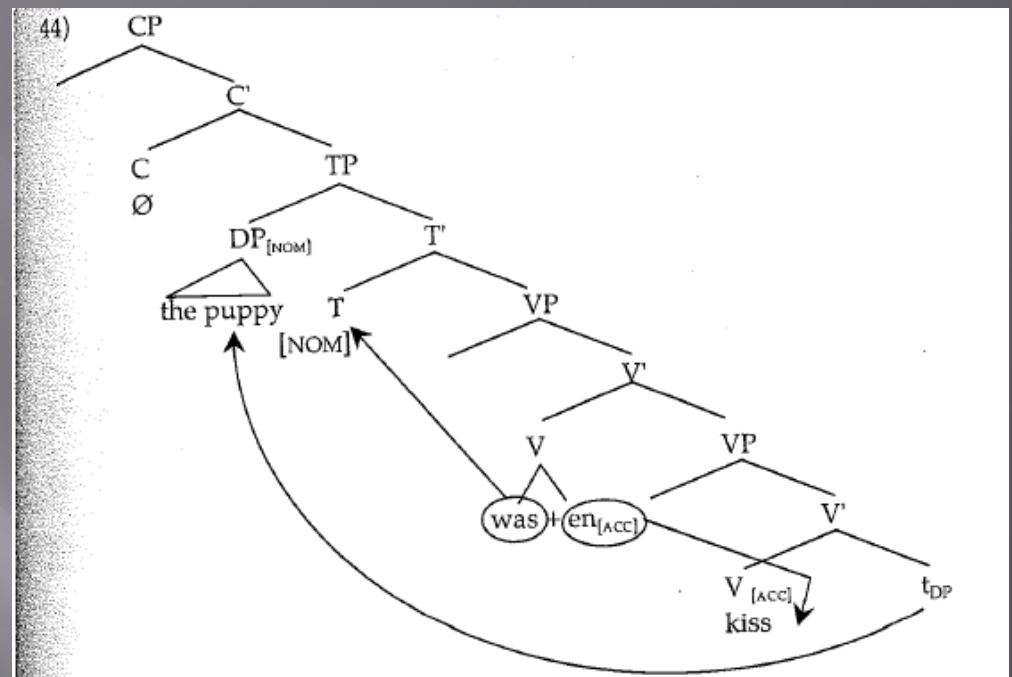
•The passive thief takes the external theta role and accusative case away from the verb.

The Obvious Question

❑ What about when the agent is present in a *by* phrase?
  ❑ He 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.*

SUMMARY

- 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. Please 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 △ please.

1. The students are likely to learn the conditions on movement operations.
2. What kind of sake did Cherlon ask the bartender to bring her?
3. Which book has the professor claimed that she hopes to finish during mid-term break?
4. Who planned to attend the protest that the leaders on campus are organizing?
5. The media find the Kardashian family to be a source of salacious news.
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.

Practice