Locality Constraints

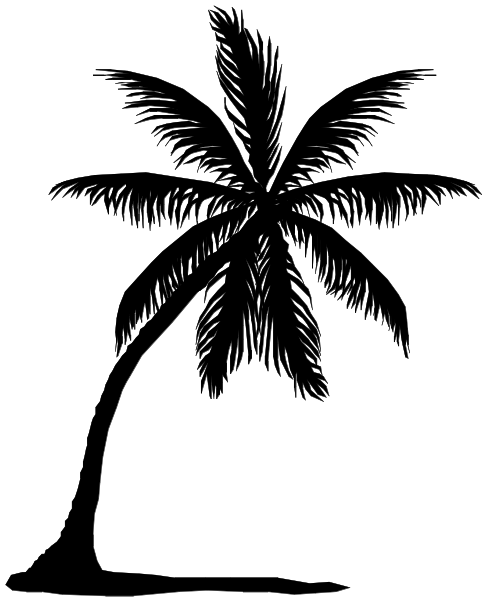
(DP) islands

can get out of a CP

What$_i$ did Bill claim [$_{CP}$ that he read t_i?]

*What did Bill make [$_{DP}$ the claim [$_{CP}$ that he read t_i ?]]

can't get out of an DP



Islands are surrounded by water: you can't get off of (out of) them. Wh-movement can't get out of an island

DPs are islands

DP Islands

- Check out what Moe says in the following clip:

?*You know what I blame this on the breakdown of?

- I blame this on [the breakdown of society].

- Questioning *society* requires extraction of a *wh*-phrase from inside a DP (*the breakdown of society*).
- The Complex DP Constraint (CNPC):
  - *wh_i [... [DP ... [CP ... t_i ...] ...] ...]

Wh-islands

I wonder [$_{CP}$ what$_i$ [$_{TP}$ John bought t_i with the $20 bill]]

[$_{CP}$ How$_i$ do [$_{TP}$ you think [$_{CP}$ John bought the sweater t_i ?]]]

*[$_{CP}$ How$_k$ do [$_{TP}$ you wonder [$_{CP}$ what$_i$ [$_{TP}$ John bought t_i t_k]]]]

Wh-islands

I wonder [$_{CP}$ what$_i$ [$_{TP}$ John kissed t_i?]]

Who$_j$ did you think [$_{CP}$ [$_{TP}$ t_j kissed the gorilla?]]

*Who$_k$ did you wonder [$_{CP}$ what$_i$ [$_{TP}$ t_k kissed t_i ?]]

Wh-islands

- A CP with a wh-word in its specifier is an island for the movement of another wh-word.
- The Wh-island Constraint:
  - * wh_i [... [$_{CP}$ wh_k [... t_i ...] ...] ...]

Other Islands

- *Subject condition*: You can't extract out of the subject CP of a clause:
  - [$_{TP}$ [$_{CP}$ that the police would arrest *several rioters*] was a certainty.]
  - *Who was [$_{TP}$ [$_{CP}$ that the police would arrest t_i] was a certainty]?
- The Subject Condition:
  - *wh$_i$ ... [$_{TP}$ [$_{CP}$ ... t_i ...] T ...]

Other Islands

- *Coordinate Structure Constraint*: You can't extract out of either conjunct of a conjoined phrase:
  - I liked Mary and John
  - *Who$_i$ did you like Mary and t_i?
  - *Who$_i$ did you like t_i and John?

Other Islands

- *Coordinate Structure Constraint*: You can't extract out of either conjunct of a conjoined phrase:
  - I [$_{VP}$ ate some popcorn] and [$_{VP}$ drank some soda].
  - *What$_i$ did you eat some popcorn and drink t_i
  - *What$_i$ did you eat t_i and drink some soda?

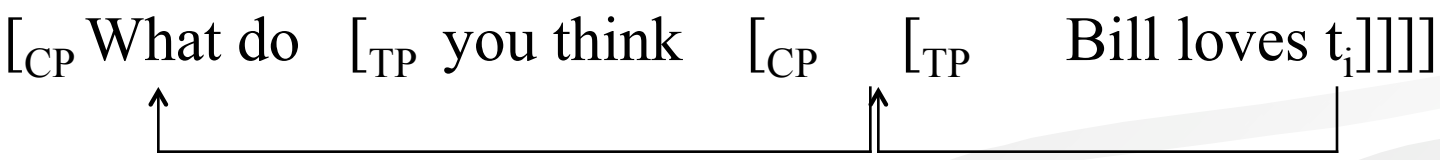
Other Islands

- The Coordinate Structure Constraint (CSC):
  - *wh_i … [XP [XP … t_i …] conj [XP …]] …
  - or *wh_i … [XP [XP …] conj [XP … t_i …]] …
  - or *wh_i … [XP [XP …] conj t_i] …
  - or *wh_i … [XP t_i conj [XP …]] …

How do we account for the island phenomena?

- We're going to provide an explanation for only one of these island types (wh-islands) but we'll see that that explanation extends to DP and head movement too.
- The Minimal Link Condition (informal version):
  - Move to the closest *potential* landing site.
  - (formal version is in your textbook)

The MLC and Cycles



If you do the movement in two hops (first to the intermediate CP specifier, then to the higher CP specifier) then you don't violate the MLC.

Intermediate Stop off?

- Is there any evidence that the wh-phrase actually stops on it's way up to the top?
- Some dialects of German and Malayalam pronounce a copy in the intermediate specifier
- Kids pronounce a copy at that location

Wh-islands: Try 1

[$_{CP}$ ____ did$_{[+wh]}$ [$_{TP}$ you wonder [$_{CP}$ ____ Ø$_{[+wh]}$ [$_{TP}$ who kissed what ?]]

[$_{CP}$ ____ did$_{[+wh]}$ [$_{TP}$ you wonder [$_{CP}$ what$_i$ Ø$_{[+wh]}$ [$_{TP}$ who kissed t$_i$?]]

[$_{CP}$ ____ did$_{[+wh]}$ [$_{TP}$ you wonder [$_{CP}$ what$_i$ Ø$_{[+wh]}$ [$_{TP}$ who kissed t$_i$?]]

Can't do this. The specifier of this CP is already filled by "what"

Wh-islands: Try 2

[$_{CP}$ ____ did$_{[+wh]}$ [$_{TP}$ you wonder [$_{CP}$ ____ Ø$_{[+wh]}$ [$_{TP}$ who kissed what ?]]

[$_{CP}$ ____ did$_{[+wh]}$ [$_{TP}$ you wonder [$_{CP}$ what$_i$ Ø$_{[+wh]}$ [$_{TP}$ who kissed t$_i$?]]

[$_{CP}$ ____ did$_{[+wh]}$ [$_{TP}$ you wonder [$_{CP}$ what$_i$ Ø$_{[+wh]}$ [$_{TP}$ who kissed t$_i$?]]

*

Can't do this! It violates the subjacency condition!!

Wh-islands: Try 3

$[_{CP}$ ____ $did_{[+wh]}$ $[_{TP}$ you wonder $[_{CP}$ ____ $Ø_{[+wh]}$ $[_{TP}$ who kissed what ?]]

$[_{CP}$ ____ $did_{[+wh]}$ $[_{TP}$ you wonder $[_{CP}$ who_k $Ø_{[+wh]}$ $[_{TP}$ t_k kissed $what_i$?]]

$[_{CP}$ who_k $did_{[+wh]}$ $[_{TP}$ you wonder $[_{CP}$ t_k $Ø_{[+wh]}$ $[_{TP}$ t_k kissed $what_i$?]]

$[_{CP}$ who_k $did_{[+wh]}$ $[_{TP}$ you wonder $[_{CP}$ t_k $Ø_{[+wh]}$ $[_{TP}$ t_k kissed $what_i$?]]

*

can't do this! Specifier of lower CP is occupied by trace of who

No way to do it!

- There is no way to derive a wh-island sentence like:

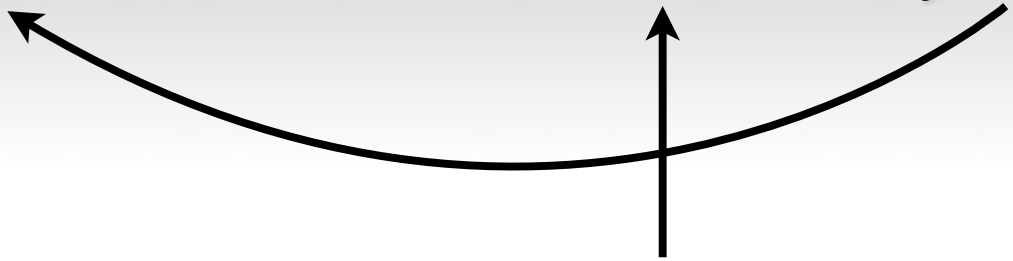
  *Who do you think what read?

MLC effects with DP-movement

- $Mark_i$ is likely [t_i to have left]
- *It* is likely that Mark has left
- $Mark_i$ seems [t_i to have left]
- *It* seems [that Mark has left]
- __ seems [that ___ is likely [Mark to have left]
- It seems that $Mark_i$ is likely [t_i to have left]
- *$Mark_i$ seems that it is likely [t_i to have left]
  - This last sentence is known as "super-raising"

MLC effects with DP-movement

- *[$_{TP}$ Mark$_i$ seems that [$_{TP}$ it is likely [t_i to have left]]]



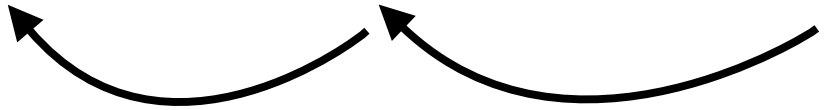
First potential nominative position

This movement thus violates the MLC

MLC effects with Head Movement

Mangez vous des pommes?
eat you of.the apples

$[_{CP}\ C_{[+Q]}\ [_{TP}$ vous $T_{[pres]}\ [_{VP}\ t_{vous}$ mangez des pommes$]]]$

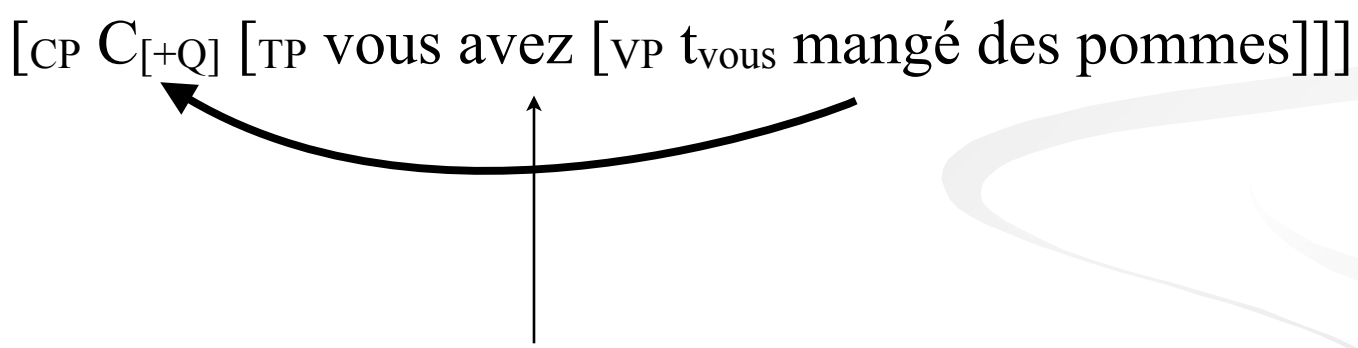


Avez vous mangé des pommes?
have you eaten of.the apples

$[_{CP}\ C_{[+Q]}\ [_{TP}$ vous avez $[_{VP}\ t_{vous}$ mangé des pommes$]]]$

MLC effects with Head Movement

Mangez vous avez des pommes?
eat you have of.the apples



First potential head position to land in

This is sometimes known as the head-movement constraint (HMC) but it's due to the MLC.

Wh-in-situ in English

- D: “Hey, I just heard that Shelly loves Ferdinand.”
- A: “Shelly loves WHO?”
- D: “You heard me; Shelly loves Ferdinand!”

- Unlike real wh-questions, Echo questions like the one above aren’t requests for information, but are requests for confirmation of info. These don’t involve wh-movement. This is one of two phenomena called wh-in-situ

Wh-in-situ in English

- Echo questions don't have to have a wh-phrase in them:
  - Fred saw a spaceship in the LINGUISTICS LOUNGE?
- They are marked by special intonation and stress.
- This is possibly coded with a special null C head, which bears some kind of feature that triggers intonation.

Summary

- There are locality conditions on Wh-movement.
- These are called Island effects:
  - DP islands (CNPC)
  - Wh islands (MLC)
  - Subject Islands (SC)
  - Coordinate Island (CSC)

Summary

- The MLC says "Move to the closest potential position"
- Explains
  - Wh-islands
  - "Super-raising"
  - Head Movement Constraint
- Echo questions in English don't involve movement but probably involve a special C that has intonation features associated with it.