

Locality Constraints

(DP) islands

can get out of a CP

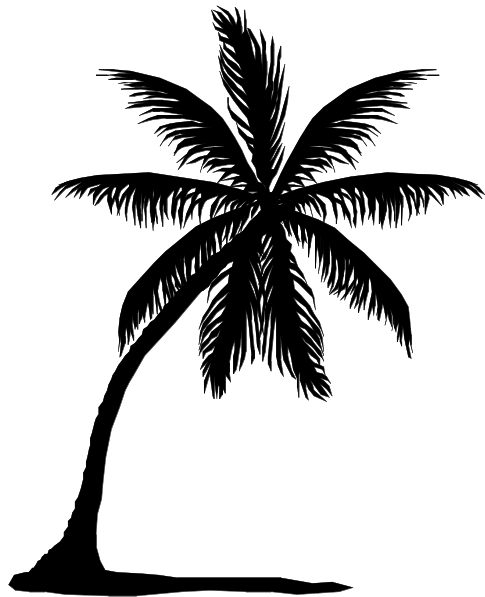
What_i did Bill claim

[_{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

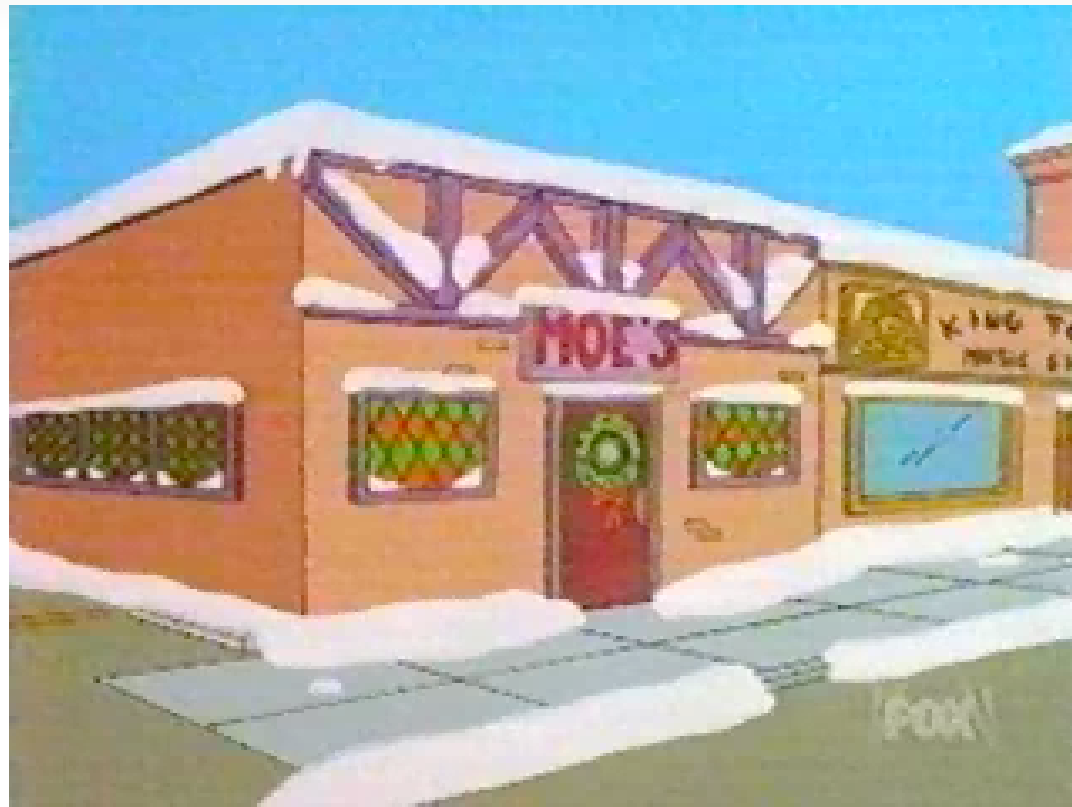


Islands are surrounded by water: you can't get off of (out of) them. Wh-movement can't get out of an island

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):**
 - $*wh_i [\dots [DP \dots [CP \dots t_i \dots] \dots] \dots]$

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?]]




A horizontal line connects the trace t_i in the TP complement to the wh-word what_i in the CP specifier. An upward arrow points from the line to what_i.

Who_j did you think [_{CP} [_{TP} t_j kissed the gorilla?]]



A horizontal line connects the trace t_j in the TP complement to the wh-word Who_j in the CP specifier. An upward arrow points from the line to Who_j.

*Who_k did you wonder [_{CP} what_i [_{TP} t_k kissed t_i?]]



Two horizontal lines connect traces in the TP complement to the wh-word Who_k in the CP specifier. The first line connects t_k to Who_k, and the second line connects what_i to Who_k. Upward arrows point from each line to Who_k.

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):

- * $\text{wh}_i \dots [\text{XP} [\text{XP} \dots t_i \dots] \text{conj} [\text{XP} \dots]] \dots$
- or * $\text{wh}_i \dots [\text{XP} [\text{XP} \dots] \text{conj} [\text{XP} \dots t_i \dots]] \dots$
- or * $\text{wh}_i \dots [\text{XP} [\text{XP} \dots] \text{conj} t_i] \dots$
- or * $\text{wh}_i \dots [\text{XP} t_i \text{conj} [\text{XP} \dots]] \dots$

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

$[_{CP} \text{What do } [_{TP} \text{you think } [_{CP} [_{TP} \text{Bill loves } t_i]]]]$



A horizontal line with an upward arrow at the left end (pointing to 'What do') and a downward arrow at the right end (pointing to t_i).

$[_{CP} \text{What do } [_{TP} \text{you think } [_{CP} [_{TP} \text{Bill loves } t_i]]]]$

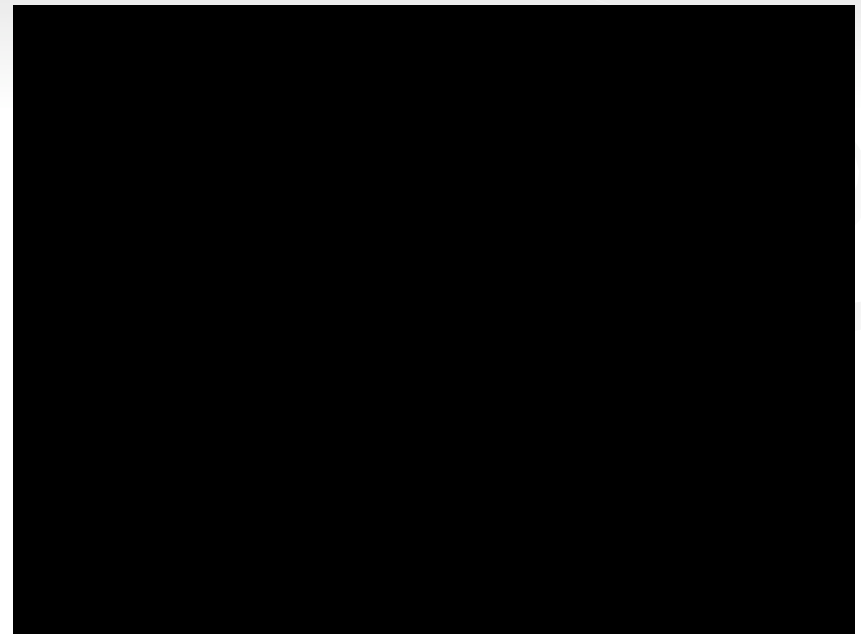


A horizontal line with an upward arrow at the left end (pointing to 'What do') and a downward arrow at the right end (pointing to t_i). A second, shorter horizontal line starts at the intermediate $[_{CP}]$ and has an upward arrow at its left end (pointing to the intermediate $[_{CP}]$) and a downward arrow at its right end (pointing to t_i).

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} ____ \emptyset _[+wh] [_{TP} who kissed what ?]]]

[_{CP} ____ did_[+wh] [_{TP} you wonder [_{CP} what_i \emptyset _[+wh] [_{TP} who kissed t_i ?]]]



[_{CP} ____ did_[+wh] [_{TP} you wonder [_{CP} what_i \emptyset _[+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 subadjacency condition!!

Wh-islands: Try 3

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

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

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

[_{CP} who_k did_[+wh] [_{TP} you wonder [_{CP} t_k \emptyset _[+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

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



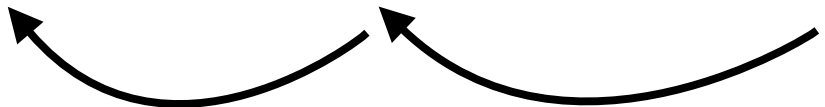
First potential
nominative position

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]]]



The diagram illustrates head movement in the present tense question 'Mangez vous des pommes?'. It shows the syntactic structure [CP C_[+Q] [TP vous T_[pres] [VP t_{vous} mangez des pommes]]]. Two curved arrows indicate the movement of the verb head 'mangez' from its base position in the VP to the C position in the CP, and the movement of the subject 'vous' from its base position in the VP to the Spec-TP position.

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

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



The diagram illustrates head movement in the perfect tense question 'Avez vous mangé des pommes?'. It shows the syntactic structure [CP C_[+Q] [TP vous avez [VP t_{vous} mangé des pommes]]]. A single curved arrow indicates the movement of the auxiliary verb head 'avez' from its base position in the VP to the C position in the CP.

MLC effects with Head Movement

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

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



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.