

WH-Movement

Chapter 11 Carnie's *Syntax*

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1 Movement in *Wh*-questions

The *wh*-phrases are not in their theta positions, but they aren't in their Case positions either.

- (1) a. Whom_{ACC} did Matt kiss?
 b. Whom_{ACC} did Stacey say (that) Matt kiss?
 c. [CP [DP whom_{ACC}] [C' [C did] [TP [DP Matt_{NOM}] [T' [T did_{NOM}] [VP [DP Matt] [V' [V kiss] [DP whom_{ACC}]]]]]]]]
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The movement to the specifier of CP accounts for another fact about the word order of *wh*-questions: they also involve T → C movement (in main clauses):

- (2) a. Who(m) are you meeting?
 b. *Who(m) you are meeting?
 c. [CP [DP whom_{ACC}] [C' [C are] [TP [DP you_{NOM}] [T' [T are] [VP [V' [V be_{ing}] [VP [DP you] [V' [V meeting] [DP whom_{ACC}]]]]]]]]]]
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We triggered T→C movement with a [+Q] feature that was part of the complementizer. A feature that triggers *wh*-movement: [+WH]. It resides in the C of a *wh*-sentence.

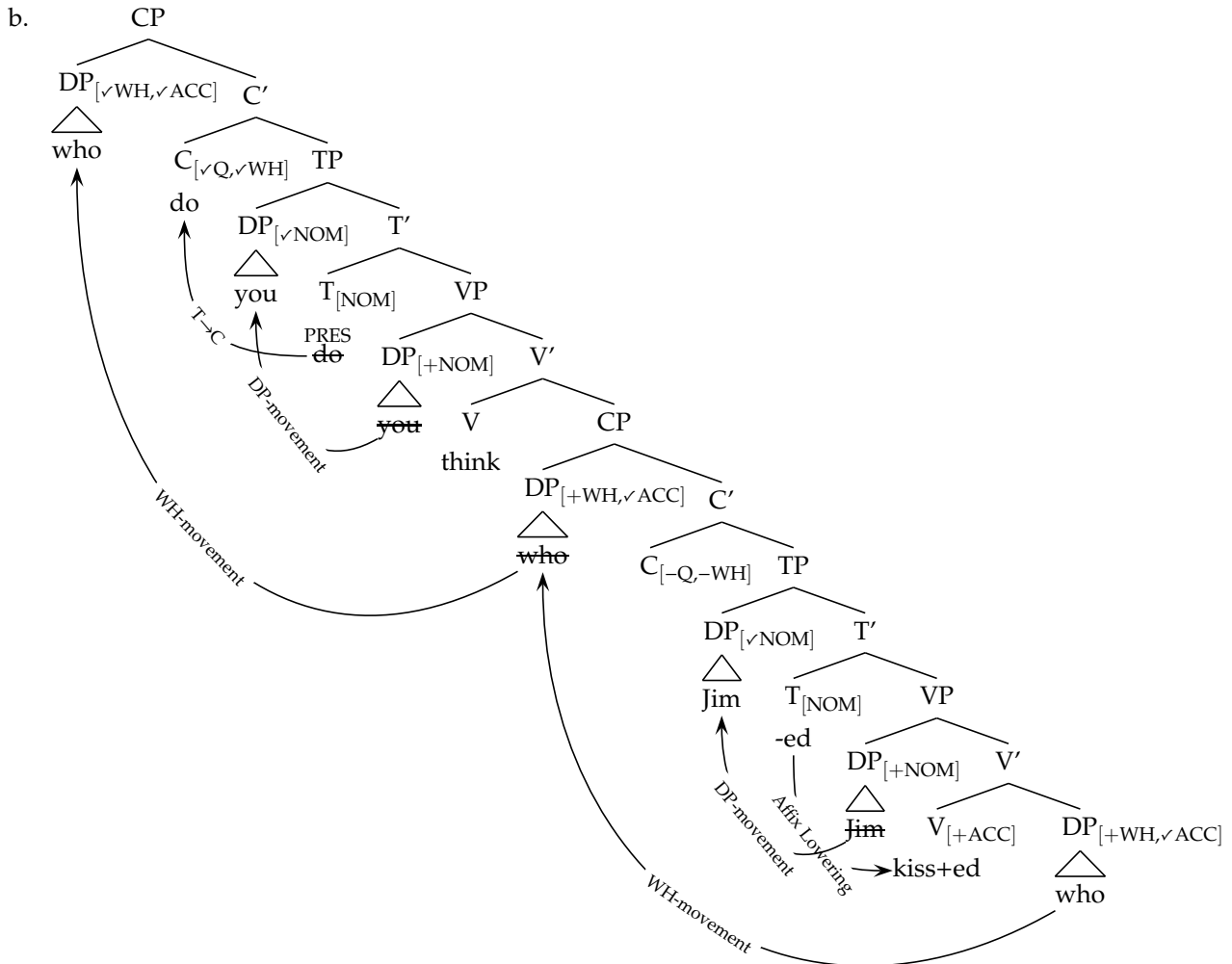
- (3) In some languages (such as Irish), there are special forms of complementizers that represent these features:
 a. [-Q,-WH] *go*
 b. [+Q,-WH] *an*
 c. [+Q,+WH] *aL*

- (4) *Wh*-movement
 Move a *wh*-phrase to the specifier of CP to check a [+WH] feature in C.

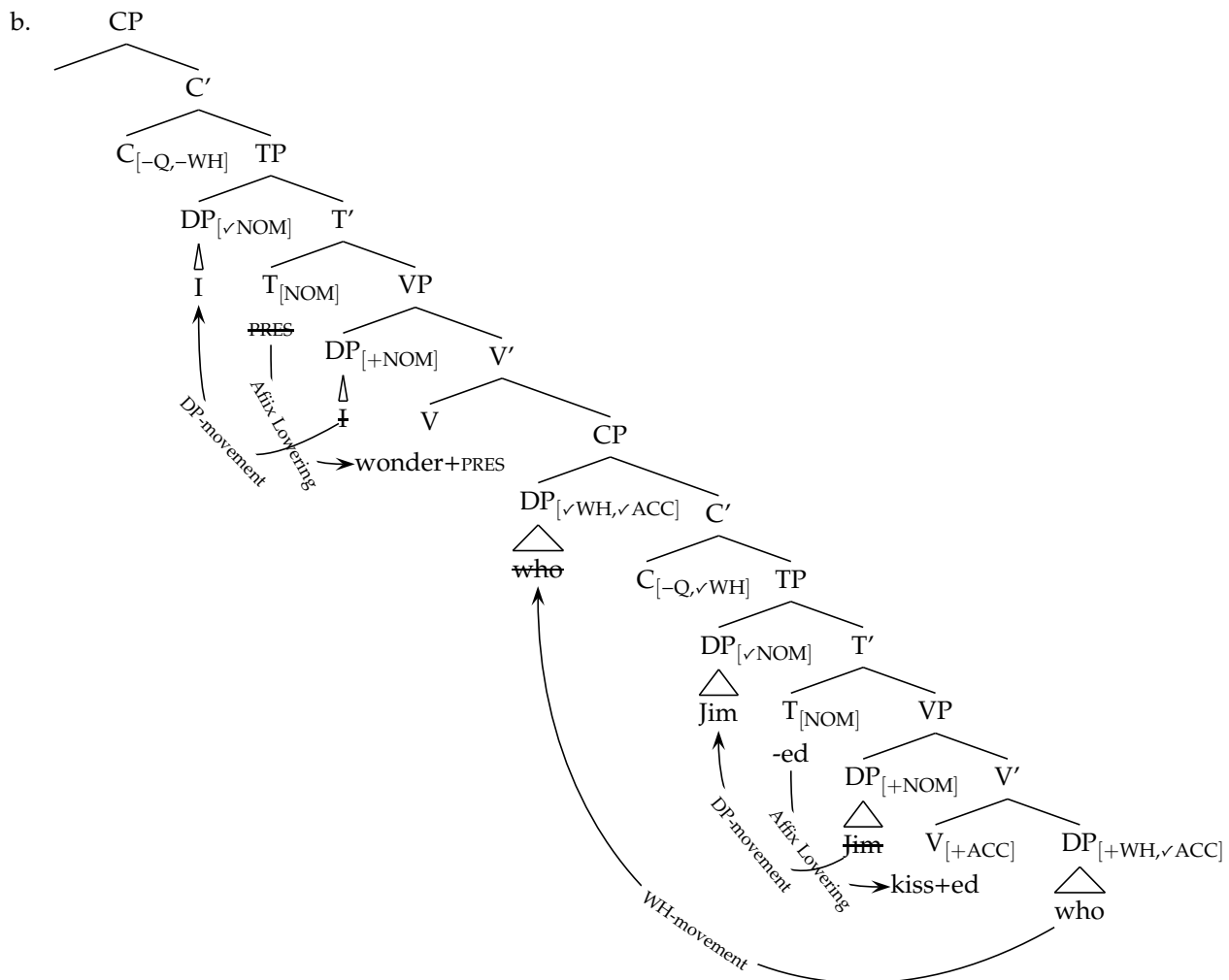
- (5) a. Whom did Matt kiss?
 b. [CP [DP whom_[✓WH,✓ACC]] [C' [C did_[✓Q,✓WH]] [TP [DP Matt_{✓NOM]}] [T' [T did] [VP [DP Matt] [V' kiss [DP whom_[+WH,✓ACC]]]]]]]]]
-
- c. *kiss* assigns ACC: [DP whom_[+WH,✓ACC]]
 d. *DP-Movement*: [DP Matt_{✓NOM]}
 e. *T→C*: [C did_[✓Q,+WH]]
 f. *WH-Movement*: [DP whom_[✓WH,✓ACC]]
 g. *WH-Movement*: [C did_[✓Q,✓WH]]

- (6) a. Who was kissed?
 b. *Affix Lowering*: [V kiss+en_[θ,ACC]] (⇒ kissed)
 c. *DP-Movement*: [DP who_[+WH,✓NOM]]
 d. V→T
 e. T→C: [C was_[✓Q,+WH]]
 f. *WH-Movement*: [DP who_[✓WH,✓NOM]]
 g. *WH-Movement*: [C was_[✓Q,✓WH]]

- (7) a. Who(m) do you think Jim kissed?



- (8) a. I wonder who(m) Jim kissed?



When a *wh*-question is embedded the subject does not invert with the auxiliary (i.e., no $T \rightarrow C$ movement). In embedded clauses in English there is no $C_{[+Q,+WH]}$. So we find $C_{[-Q,-WH]}$ (embedded declaratives) or $C_{[-Q,+WH]}$ (indirect questions or exclamatives).

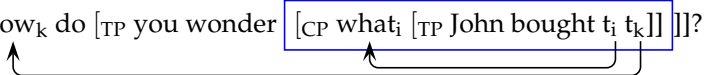
- (9) a. I wonder what he has done?
 b. *I wonder what has he done?

2 Islands: Constraints on *Wh*-movement

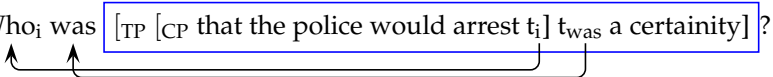
Wh-movement is not entirely free. There are constraints on what categories you can move out of (the categories that contain the *wh*-phrase).

- (10) *The Complex DP Constraint*
 * wh_i [... [DP ... t_i ...] ...]

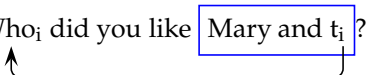
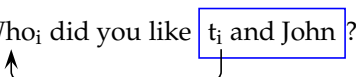
- (11) a. Bill make [DP the claim [CP that he read something in the syntax book]]
 b. *What_i did Bill make [DP the claim [CP that he read t_i in the syntax book]]?
 c. *[Which cake]_i did you see [DP the man [CP who baked t_i]]?

(12) *The Wh-island Constraint**wh_k [... [CP wh_i [... t_k ...] ...] ...](13) *[CP How_k do [TP you wonder [CP what_i [TP John bought t_i t_k]]]]?
(14) *The Sentential Subject Condition**wh_i ... [TP [CP ... t_i ...] T ...]

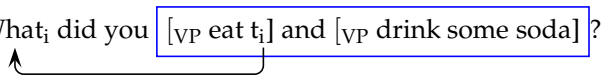
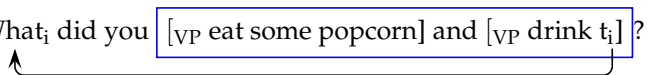
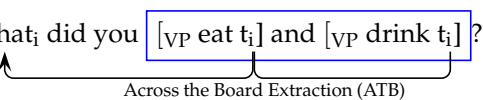
(15) a. [TP [CP That the police would arrest someone] was a certainty]

b. *Who_i was [TP [CP that the police would arrest t_i] t_{was} a certainty]?
(16) *Coordinate Structure Constraint:**wh_i ... [XP [XP ... t_i ...] conj [XP ...]]
or *wh_i ... [XP [XP ...] conj [XP ... t_i ...]]
or *wh_i ... [XP t_i conj [XP ...]]
or *wh_i ... [XP [XP ...] conj t_i]

(17) a. I liked Mary and John.

b. *Who_i did you like Mary and t_i?
c. *Who_i did you like t_i and John?


(18) a. I [VP ate some popcorn] and [VP drank some soda].

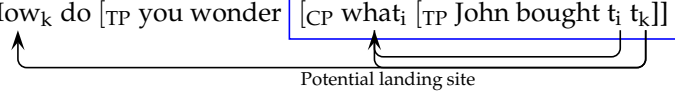
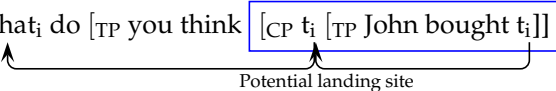
b. *What_i did you [VP eat t_i] and [VP drink some soda]?
c. *What_i did you [VP eat some popcorn] and [VP drink t_i]?
d. What_i did you [VP eat t_i] and [VP drink t_i]?


3 The Minimal Link Condition

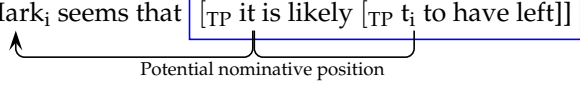
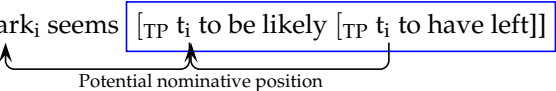
(19) *Minimal Link Condition* (MLC): Move to the closest potential landing site.(20) The Minimal Link Condition (formal): Movement of some item β can target some position α of type δ if and only if

- a. α c-commands β
- b. there is no γ , also of type δ , such that α c-commands γ , and γ c-commands β .
- c. δ is defined as:
 - i). a head if β = a head.
 - ii). The specifier of TP if β = a DP with an unchecked [NOM].
 - iii). The complement of the V if β = a DP with an unchecked [ACC].
 - iv). The specifier of CP if β = a *wh*-phrase with an unchecked [+WH] feature.

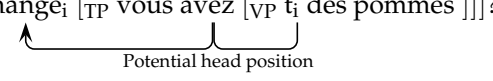
(21) *Wh*-island explained

- a. * $[_{CP} \text{How}_k \text{ do } [_{TP} \text{you wonder } [_{CP} \text{what}_i [_{TP} \text{John bought } t_i t_k]]]]?$

- b. $[_{CP} \text{What}_i \text{ do } [_{TP} \text{you think } [_{CP} t_i [_{TP} \text{John bought } t_i]]]]?$


(22) Hyperraising: MLC in DP-movement

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

- b. $[_{TP} \text{Mark}_i \text{ seems } [_{TP} t_i \text{ to be likely } [_{TP} t_i \text{ to have left}]]]?$


(23) Head Movement Constraint (HMC): MLC in head movement

- a. * $[_{CP} \text{mangé}_i [_{TP} \text{vous avez } [_{VP} t_i \text{ des pommes}]]]?$

- b. $[_{CP} \text{avez}_i [_{TP} \text{vous } t_i [_{VP} \text{mangé des pommes}]]]?$
