

Wh-Movement

(Handout 5; MA seminar English Syntax)

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Various instances of phrases moving to the specifier of CP, with or without I-to-C movement:

- (1) Wh movement
 a. [WHO]_i did you speak to t_i ?
 b. [WHICH WORLD-FAMOUS LINGUISTS]_i did the commission not consider t_i for the job?
 c. [HOW LONG A PIECE OF ROPE]_i do you need t_i ?
- (2) Relative clauses
 [DP the person [CP [WHOM]_i everybody ignored t_i]
- (3) Topicalisation
 a. [THINGS LIKE THAT]_i I don't need t_i.
 b. (He said he'd apologise to her but) [APOLOGISE TO HER]_i he didn't t_i
 c. [AFRAID OF DOGS]_i she isn't t_i
- (4) Negative inversion
 a. [NEVER]_i have I t_i heard such a load of abject nonsense!
 b. [NOT ONLY]_i does this t_i save time, it also saves money.
 c. [NOT ONCE]_i did you t_i warn me about the impending explosion.
 d. [ONLY SINCE LAST WEEK]_i has he been taking the appropriate medication t_i
- (5) Emphatic inversion:
 [SO BORING]_i was the concert t_i that I fell asleep

Movement of constituents to spec,CP is an instance of **A' movement** (pronounced A-bar), i.e. movement of a constituent to a position not normally associated with the arguments of verbs, in contrast to an *A position* such as spec,IP, which is usually occupied by an argument of the verb. (Here A'/A has nothing to do with adjectives.)

A. Which of the above A' movement structures also exhibit I-to-C movement?

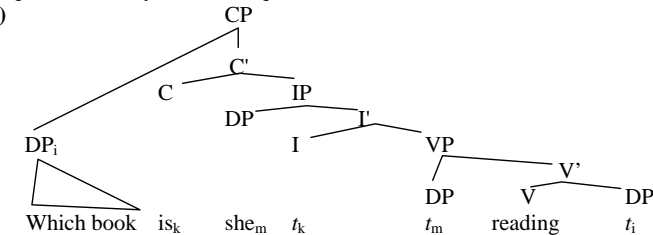
1. Basics of wh-movement; Wh-movement of direct objects and VP adjuncts

We concentrate on *wh*-movement, as in (1). Basic facts on this:

- There is subject-auxiliary inversion, i.e. I-to-C movement (and *do*-support if there's no other auxiliary) as with the *yes-no* questions seen in handout 5. (An exception discussed later is a question asking about the subject: *Who did that?*)
 - There are constituents containing a *wh*-element (*who*, *whose*, *what*, *which*, *how* etc.).
 - It is assumed that the *wh*-expression has moved from inside the VP. Reasons for this:
 - We sometimes find *wh*-elements in VP-internal positions:
- (6) Speaker 1: He was reading a book about plastic kangaroos in ancient Rome.
 Speaker 2: He was reading **WHAT?**
- (7) He went **WHERE?** He spoke to **WHO?**
- These are called **wh in situ questions** (<Latin 'in place'), the idea being that the *wh*-item stays in its original site rather than moving anywhere. In English, such questions are confined to **echo questions**, questions asking for confirmation (or expressing incredulity) about surprising statements, but in other languages (e.g. Chinese) the *wh* element stays *in situ* in all contexts.
- The grammatical function and thematic role of the *wh*-expression suggests that it comes from inside the VP, and in *wh*-questions, the verb's argument structure is always observed:
- (8) a. *WHAT* did they destroy? b. They destroyed **THE EVIDENCE**.
- (9) a. *HOW* will we get the box open b. We will get the box open **WITH A CHISEL**.
- (10) a. **WHO* did you listen? b. *I listened **Mary**.

Hint: to work out where the *wh*-constituent came from, think of an answer to the question which consists of a full sentence, as in (8) and (9). The *wh* constituent at the front of the sentence will be replaced in the answer by a constituent that wasn't in the question. Work out where this constituent belongs in the structure (e.g. complement of V? adjunct to VP?). The trace (i.e. original position) of the *wh* element will be in the same position as this constituent.

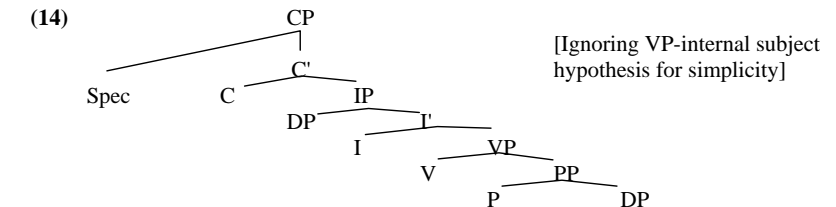
- Proposal for the syntax of *wh*-questions, illustrated with *wh*-movement of a direct object: (11)



- The trace of *which book* is in the complement of V. We can deduce this by forming a full-sentence answer to the question such as *She is reading War and Peace*. Since *War and Peace* is a complement to V, this is where the trace of the *wh* phrase will be.
- The structure for *When did she do the exam* would be similar, except that the trace will be adjoined to VP (cf. an answer like *She [VP [VP did the exam] on Friday]*).

2. Preposition Stranding

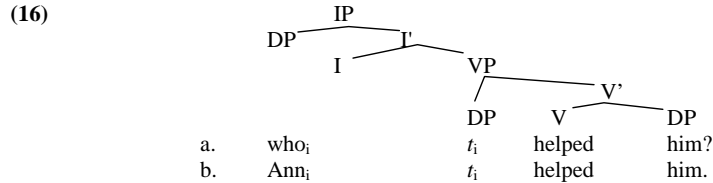
- The phenomenon in (12) is known as **P(reposition) stranding**, because the preposition is separated from its complement.
- (12) Who did you talk to? Which subject did you talk about? What are you thinking about?
- Most languages disallow P-stranding, preferring things like (13), which involve **pied-piping** of the preposition (cf. *Pied Piper = Rattenfänger, jouer de flûte de Hamelin*).
 - (13) To whom did you talk? About which subject did you talk? About what are you thinking?
 - P-stranding is simply *wh*-movement of the DP which is complement of P. Pied piping is movement of the whole PP:



- (a) [DP_iwhich film]_i did_k you t_k go to t_i ?
 (b) [PP_ito which film]_i did_k you t_k go t_i ?
- Why does English prefer P-stranding? Minimalist view: A sentence will be unacceptable if there is a more economical way of generating it which does not lead to ungrammaticality. Pied-piping is less economical than P-stranding because it involves movement of more material. In other languages, pied-piping is the most economical structure available, since P-stranding is ungrammatical due to some independent factor not present in English. There are various ideas about what this 'independent factor' is. I will discuss this in class.

3. Subject Questions

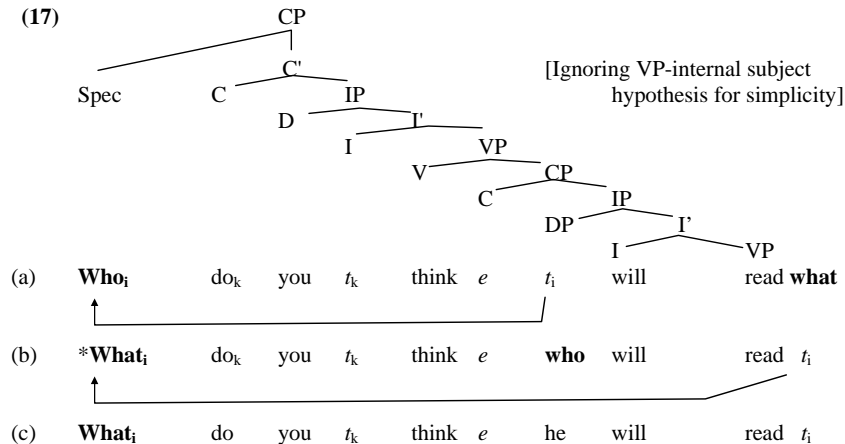
- When *wh*-phrase is subject of a sentence, there is no *do*-support
- (15) a. Who helped him? b. *Who did help him?
- This suggests that in subject questions there is no I-to-C movement (since I-to-C movement is what creates the need for *do*-support in other types of questions).
- This in turn suggests that there is no C element in subject questions (since the type of C element that appears in questions is normally one that has to be *pronounced*). What we have is a syntax exactly parallel to statements:



- Why do subject questions behave differently from other questions? An answer:
 - For a clause to be characterised as a *wh*-question, there must be a *wh*-element in a position where it can indicate that the whole clause is a *wh*-question. Put otherwise, *wh*-expressions must have **scope** over (=influence the interpretation of) the whole clause.
 - In order for a *wh*-expression to have scope over the rest of the clause, it must **c-command** the rest of the clause. This basically means that the *wh*-element must have the rest of the clause as its sister. (We see later that it is a general principle that items bearing scope must c-command the elements they have scope over.)
 - In the normal subject position (=specifier of IP), the *wh*-phrase already c-commands the rest of the clause. In other types of questions, the *wh*-phrase must move to the specifier of CP to be able to c-command the rest of the clause.

4. Further issues

4.1. Shortest move



(17) illustrates further evidence for the minimalist idea that economy plays a role in grammar. A derivation is ungrammatical if there is an alternative derivation in which there is a movement which is shorter, and thus more economical. (The relevant principle is called

Shortest Move or *The Minimal Link Condition*.) (b) is unacceptable because the shorter movement in (a) is available. Note that (c) shows that moving the object of *read* to the front of the whole sentence is not in itself ungrammatical.

4.2. Islands

- There are various configurations which are *islands for extraction*, i.e. which it is impossible to *wh*-move a constituent out of, e.g.:
 - No extraction of one of the conjuncts of a coordinated phrase:
 - (18) * Who_i did you invite t_i and Mary? * Who_i did you invite Mary and t_i ?
 - No extraction out of a CP inside a DP:
 - (19) * $What_i$ did you doubt [the claim that John believes t_i]?
 - No extraction out of a subject (for most English speakers):
 - (20) * Who_i did [the book by t_i] cause a scandal?
 - No extraction out of adjuncts:
 - (21) * $What_i$ were you reading in t_i ? (I was reading in the car.)
- A lot of research has tried to find out why is impossible in these cases. We won't be able to review this research in this course, however. Attempts at explaining such island effects are discussed in most of the textbooks listed in the course plan.

4.3. Evidence for traces

An empirical argument for traces in *wh*-movement constructions comes from the fact that a species of cliticisation known as *wanna*-contraction (*want+to* → *wanna*) is impossible across the position where traces (if they exist) would be expected to be found. If traces exist, we can explain this: Cliticisation is impossible because the trace is between *want* and *to*.

- (22) Who_i do you want to see t_i → Who_i do you wanna see t_i
- (23) Who_i do you want t_i to do it → * Who_i do you wanna do it
- (24) Who_i have you got to see t_i → Who_i have you gotta see t_i
- (25) Who_i have you got t_i to help you → * Who_i have you gotta help you

B. Draw trees for the following questions.

1. Which question will you answer?	2. Who do you admire?
3. How did you open the safe?	4. To whom did you speak?
5. Who did you speak to?	6. Who washed the dishes?
7. Which student's book did you borrow?	8. Where are you going?
9. Whither goest thou? (Early Modern English, = <i>Where are you going</i>)	
10. What do you think that he would like?	11. Who did you say they recommended?