

July 17 [July 10], 2003

CLASS 8: Wh-Movement in Questions

Forming Wh-Questions

English has a pretty straightforward way to ask questions involving **interrogative pronouns**:

- (1) a. **What** did you read yesterday?
- b. **Who** has eaten already?
- c. **Where** are my books?
- d. **Why** can't you sleep?
- e. **Which student** might everybody admire?

In syntactic analysis, the boldfaced elements (the **Wh-phrases**) are understood to have **moved** — moved from a position that is connected with their **thematic origin** and interpretation, such as *what* in (1a) as the complement of the verb (cf. (2a)), *who* in (1b) as the subject of the clause etc.

Another reason to assume **Wh-movement** is that the Wh-phrase can also appear **in situ**. While the interpretation is different (as an **echo-question**), it does indicate a **base position** (cf. (2b-c)).

- (2) a. * **What** did you read **the book** yesterday?
- b. You read **what**?
- c. Everybody might admire **which student**?

But **what position** does Wh-movement target? Given that the Wh-phrase precedes the auxiliary, which in turn precedes the subject, and given that auxiliaries can invert and move to C: **SpecCP**.

- (3) [CP **what_i** *did_k* [IP you *t_k* [VP read *t_i* yesterday]]]?

(Another reason why SpecCP is a plausible candidate is that Wh-expressions are **operators** and as such need to be in a **scope-taking position** — given that **the Wh-phrase licenses** an entire clause as an **interrogative clause**, think of SpecCP as the **maximum scope-taking position**.)

In other words, **English Wh-questions** are formed by **two movement operations**:

- ① head movement: **I-to-C** movement (aka “auxiliary inversion”)
- ② XP-movement: movement of **Wh-XP to SpecCP** (“Wh-movement”)

Movement of a Wh-expression is always **phrasal movement** (in opposition to head movement). Phrasal movement is **similar** to head movement in some aspects, but **also different** in others.

For one, both movement operations leave **traces**: an element that moves leaves its base position, merges to the target position and leaves behind a coindexed trace which needs to be licensed.

Evidence for Wh-Movement

Let's look at the **evidence** for postulating a **trace** left behind by Wh-movement.

• *wanna*-contraction:

- (4) a. All students **want to** learn syntax. → All students **wanna** learn syntax.
- b. Who would **want to** learn syntax? → Who would **wanna** learn syntax?
- c. Who would you **want to** learn syntax? → *Who would you **want to** learn syntax?

Strict adjacency between *want* and *to* is not observed because the **intervening trace**:

- (5) [CP **who_i** would_k [IP you *t_k* [VP **want** [IP *t_i* *to* [VP learn syntax]]]]]
 (cf. the echo-question *You would want who to learn syntax?*)

• *have*-cliticization:

- (6) Which students would you **say have** received good grades?
 → *Which students would you **say've** received good grades?

Strict adjacency between *have* and the element it cliticizes onto is not observed again (*t_i*):

- (7) [CP [**which students_i**]; would_k [IP you *t_k* [VP *say* [IP *t_i* **have** [VP received good grades]]]]]
 (cf. the echo-question *You would say which students have received good grades?*)

- (8) a. **Who has** received good grades? → **Who's** received good grades?
- b. **Who has** the teacher graded well? → **Who's** the teacher graded well?

In these cases, **strict adjacency** between *have* and the element it cliticizes onto is observed:

- (9) a. [CP **who_i**; has_k [IP *t_k* [VP received good grades]]]
 a'. [IP **who** has [VP received good grades]]
 b. [CP **who_i**; has_k [IP the teacher *t_k* [VP graded *t_i* well]]]

There is additional support for the assumption that Wh-phrases move to **SpecCP**: in dialects, of English (e.g. Belfast) the moved Wh-expression can be **followed by an overt complementizer**.

- (10) a. I wonder [**which dish_i**; *that* they picked *t_i*].
 b. They don't know [**which model_i**; *that* we have discussed *t_i*].

Homework: Exercise 9

- A. Review head movement by going over chapter 5 again.
- B. Prepare next class by thoroughly reading the entire **chapter 6**.
- C. Exercise XI in Radford: p. 144, (2a-b), (4a-b) & (5a-b) only.