

Subjacency is part of **Bounding Theory**, a subcomponent of syntax that constrains the operation MOVE.

Definitions

Subjacency Condition: WH-movement cannot cross more than 1 bounding node.

Bounding Nodes = IP, NP (in English)

I. A question about Wh-movement

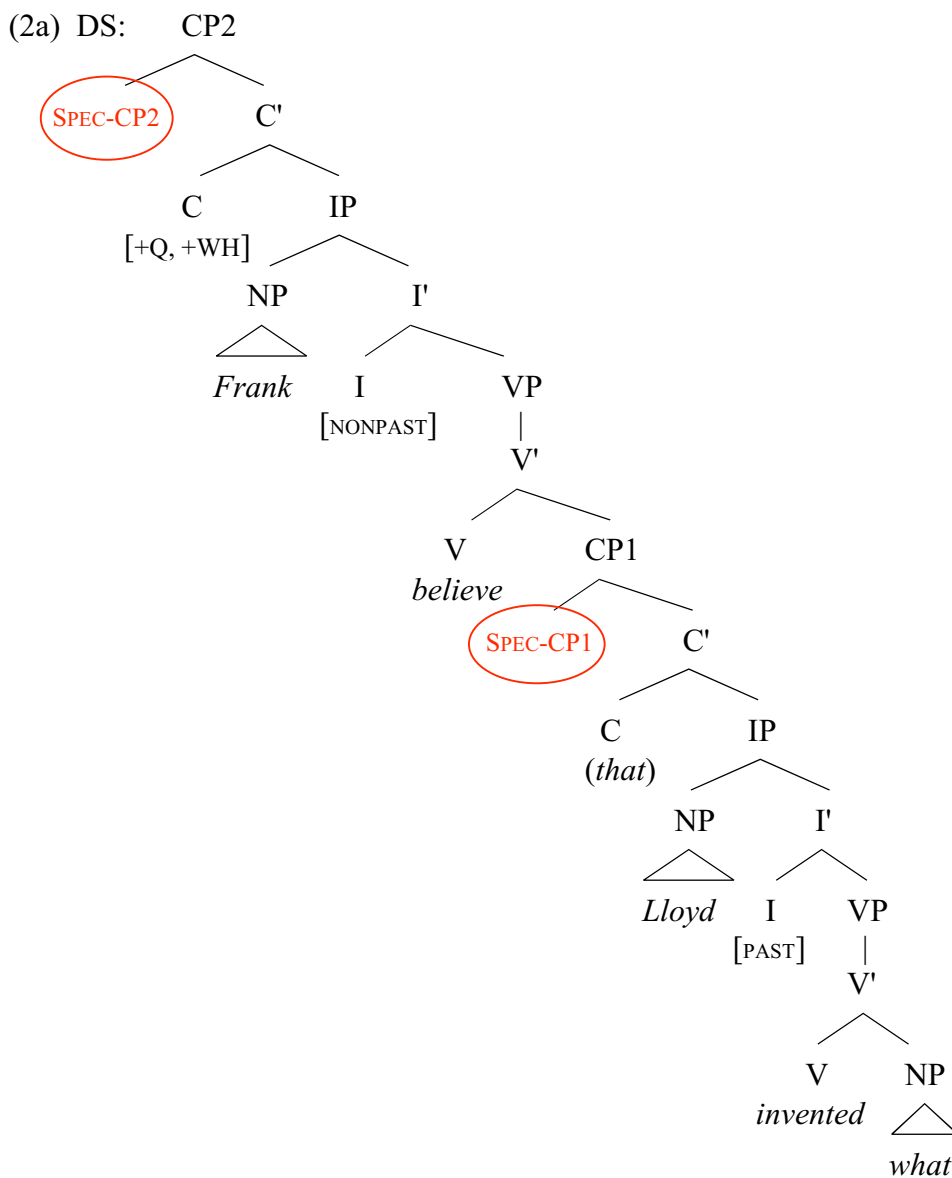
Given: Wh-Movement = move a Wh-phrase into Specifier of CP.

Question: What happens when there is more than one Specifier of CP position in the tree?

A. The Question

Consider the derivation of the following sentence:¹

(1) What does Frank believe (that) Lloyd invented?



¹ Note: in this handout, I will often simplify the tree structures under discussion by leaving out I-to-C movement (which is always triggered by [+Q] in C) and by using shorthand in the X' representations.

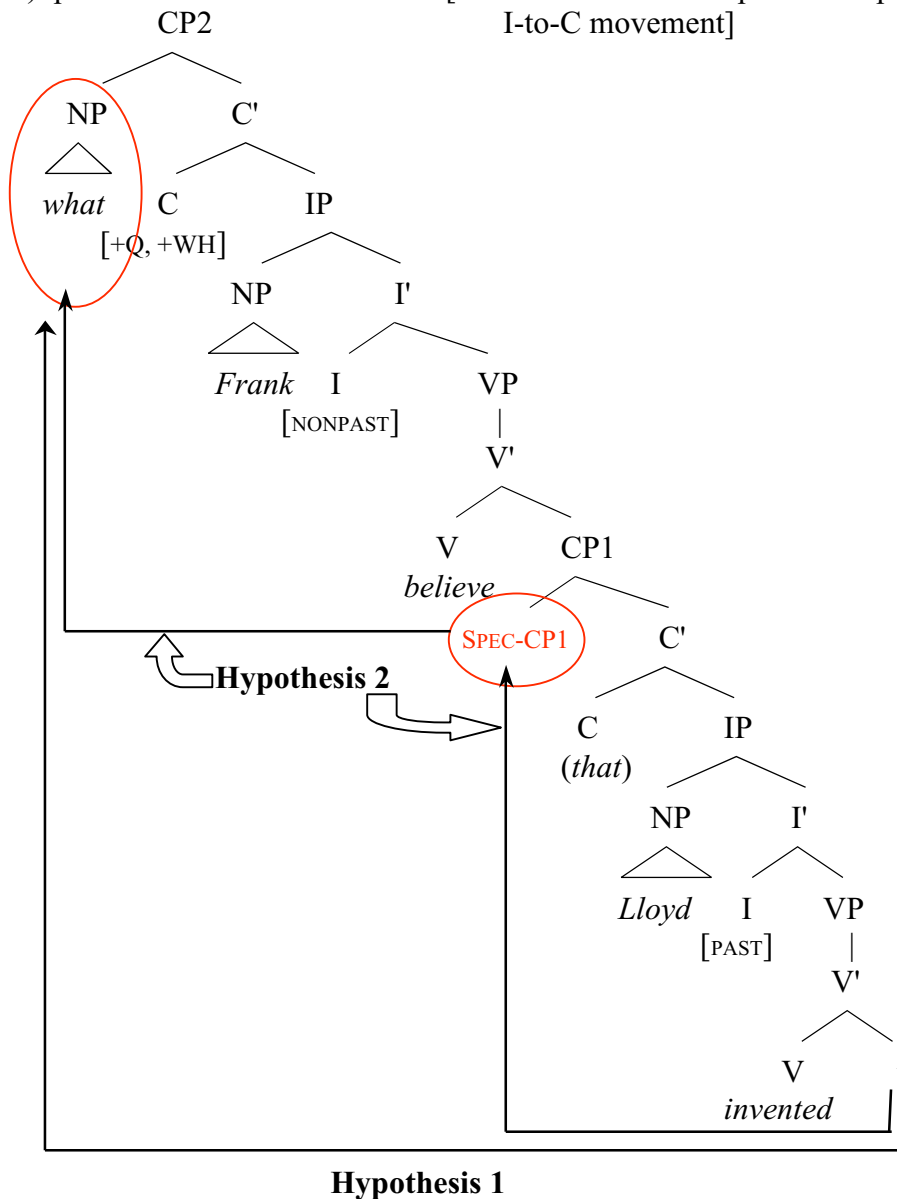
Subjacency Handout

Notice that there are two CPs, and thus, two Specifier of CP positions in the tree.
 [From now on, I will abbreviate "Specifier of CP" as "Spec-CP".]

As the Wh-phrase *what* moves from its DS to its SS position, does it proceed:

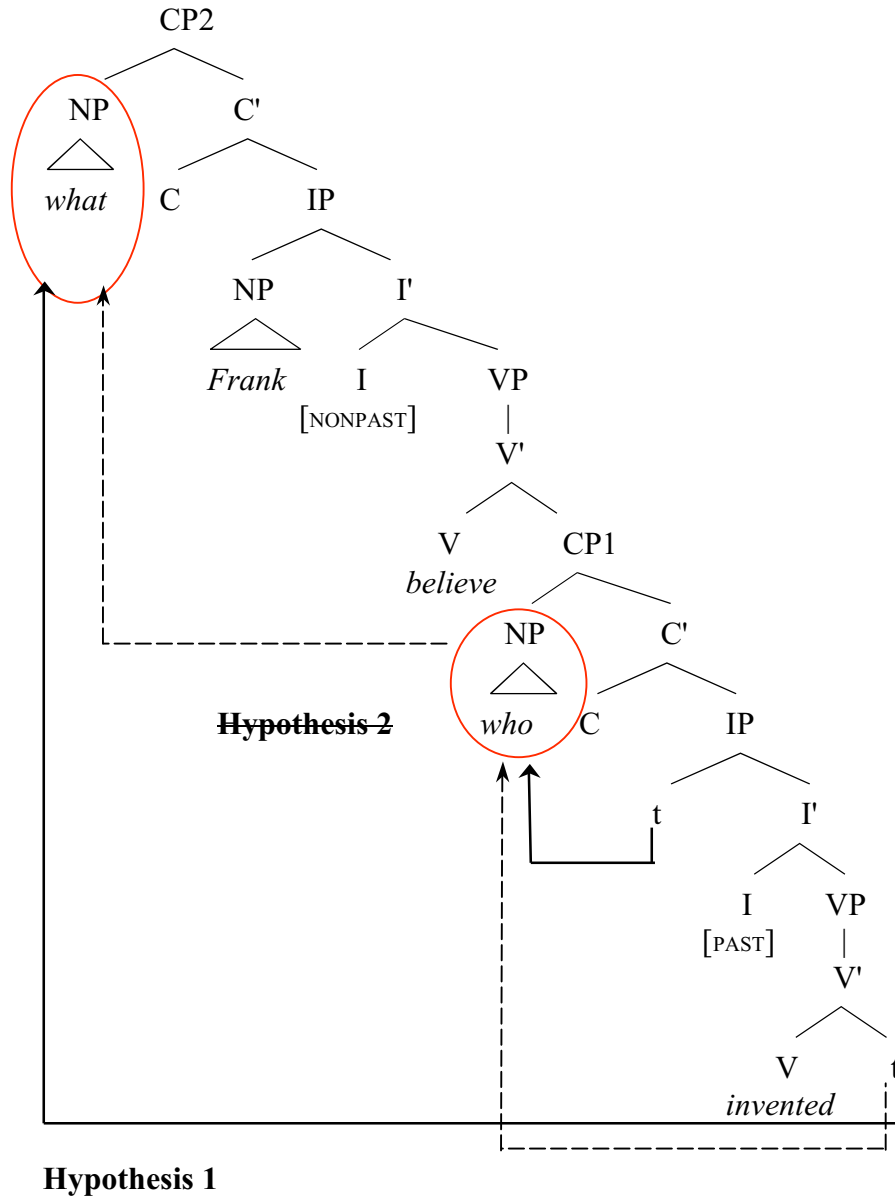
- a) directly to the top Spec-CP, in "one-fell-swoop" movement? Call this **Hypothesis 1**.
- or**
- b) from Spec-CP to Spec-CP position, i.e., moving in a step-wise fashion? Call this **Hypothesis 2**.

(2b) partial SS: [note: this is not a complete SS representation, since I've left out I-to-C movement]



The crucial difference between Hypothesis 1 and Hypothesis 2 centers around the Spec-CP1 position. One way to test for the difference between the two hypotheses is to ask: Does Wh-movement in (1) need to stop off in Spec-CP1 on its way to Spec-CP2 at the top of the tree?

(5) partial SS:

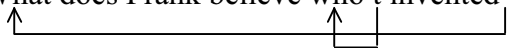


Since *who* sits in Spec-CP1, *what* cannot use it as a landing site. Thus, the step-wise movement of Hypothesis 2 is blocked, and *what* must undergo one-fell-swoop movement, as described by Hypothesis 1.

D. The outcome of the experiment

What is the result of our experiment? In other words, is the derivation utilizing one-fell-swoop movement grammatical or ungrammatical?

(6) *What does Frank believe who t invented t?



The result is **ungrammatical**.

This means that one-fell-swoop movement is not allowed.

Conclusion:

Wh-movement must proceed in a step-wise fashion, in accordance with Hypothesis 2.

II. A Constraint on Wh-movement: The Subjacency Condition

Data such as those discussed in Section I has led to the discovery of certain constraints on Wh-movement. One such constraint is the **Subjacency Condition**:

(7) **Subjacency Condition**: WH-movement cannot cross more than 1 bounding node.

where "bounding nodes" are defined as in (8):

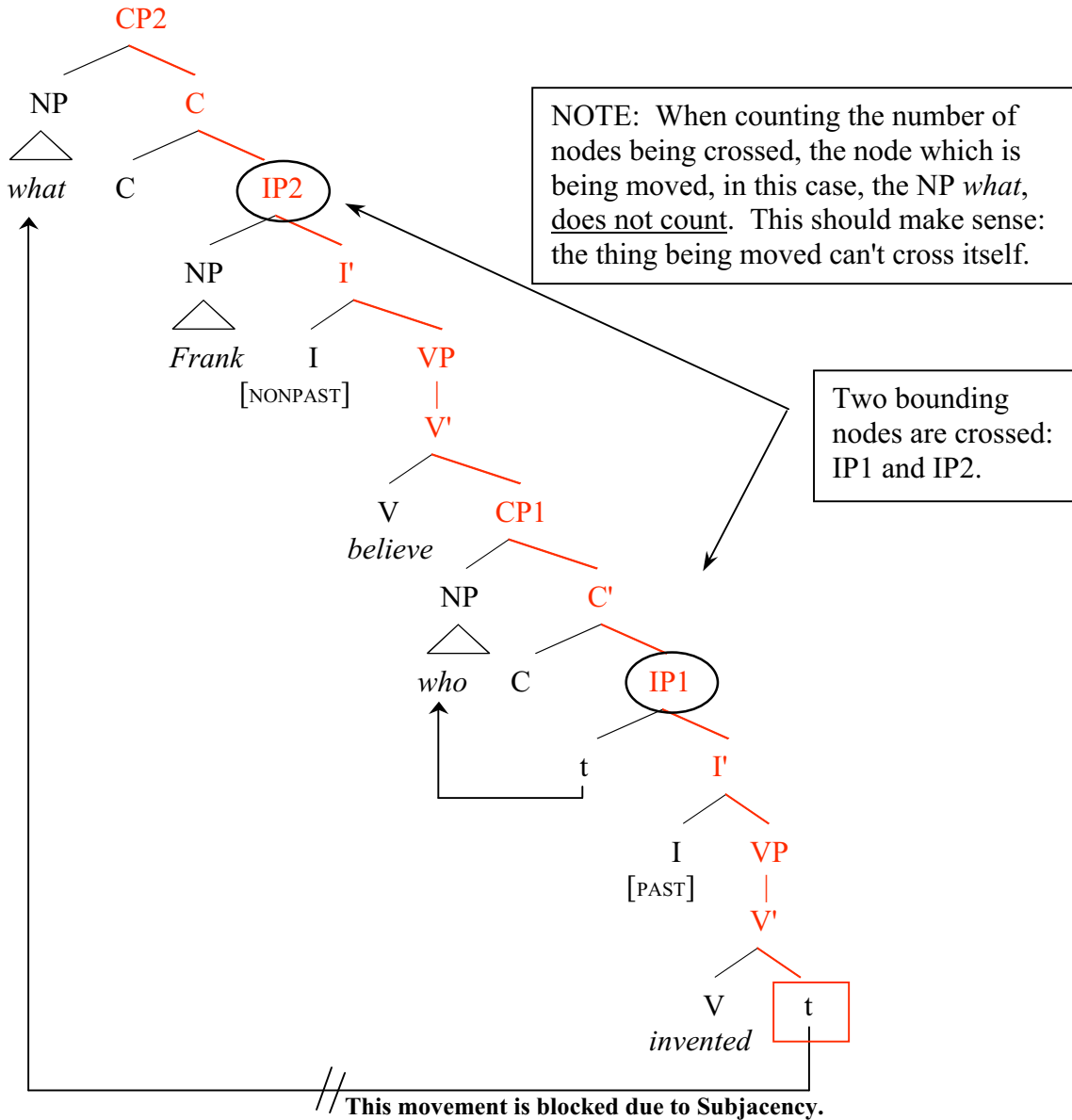
(8) **Bounding Nodes**: IP, NP (in English).

The Subjacency Condition is essentially a locality condition on Wh-movement. A Wh-phrase undergoing Wh-movement may not move "too far" in one step; otherwise, the movement will violate the Subjacency Condition.

How do we evaluate Wh-movement, in terms of whether a particular Wh-movement respects or violates the Subjacency Condition? The trick is to think about Wh-movement in terms of the path the Wh-phrase takes as it travels up the tree. That is, do not think of Wh-movement in terms of ripping a Wh-phrase off of its DS node in a tree and just plopping it into its SS position, a means of travel which might be suggested by the "movement arrows" that we draw in our SS representations.⁴ Rather, think of the Wh-phrase traveling from node to node up the tree. Certain nodes, namely IP and NP nodes, act as "gates" that the Wh-phrase must pass through. If the Wh-phrase passes through more than one of these types of gates, the sentences will be ungrammatical.

⁴ The "movement arrows" that we draw thus shouldn't be thought of as actual representations of movement. Rather, they should be viewed as a means of visually tying together a moved element's SS and DS positions.

(9) partial SS:



In (9), the path traveled by the Wh-phrase *what* as it moves to Spec-CP2 is highlighted in red.

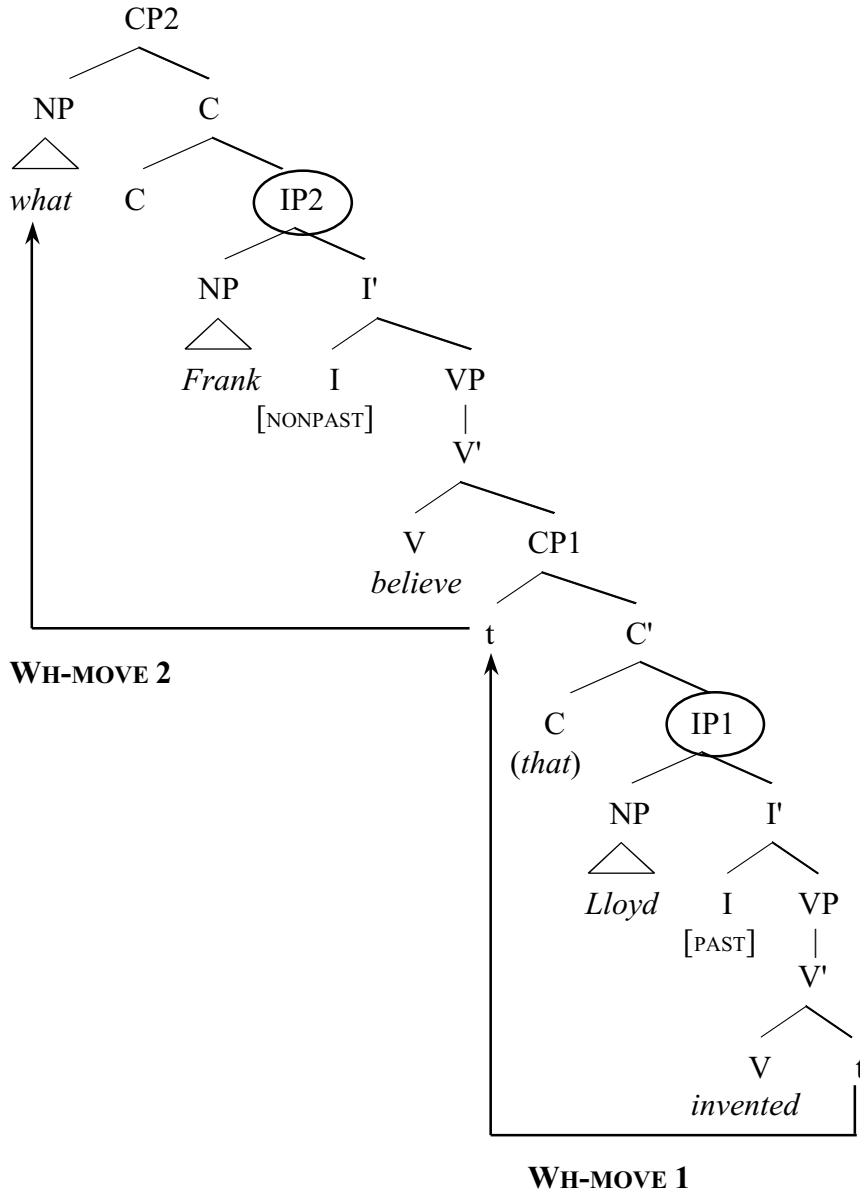
(9) is ungrammatical due to a Subjacency violation: The Wh-phrase *what* crosses more than one bounding node, namely, IP1 and IP2 (circled in the tree above).

(Note that the Wh-movement of *who* obeys the Subjacency Condition: it only crosses one bounding node, IP1.)

Returning to the grammatical sentence in (1) (repeated as (10)), we see that step-wise movement allows us to move *what* all the way to the top of the tree since each individual instance of Wh-movement obeys Subjacency:

(10) What does Frank believe t (that) Lloyd invented t? [= two instances of Wh-movement]

(11) partial SS:



As illustrated in (11), the first instance of Wh-movement only crosses one bounding node (IP1); similarly, the second instance of Wh-movement only crosses one bounding node (IP2). Each instance of Wh-movement therefore obeys the Subjacency Condition, and the result is grammatical.

Test Yourself:

Explain why the following sentence is ungrammatical. Include a tree diagram as part of your explanation.

(12) *What did Sally's theory about impress Sue?

Note that (12) is pretty severely ungrammatical. Students sometimes respond to (12) by trying to say that it is ungrammatical because it doesn't mean anything. But think about what you're trying to ask. Assume that *Sally's theory about dinosaurs impressed Sue*. And assume that you forgot what Sally's theory was about. Normally, you would create the information-seeking Wh-question by replacing the NP you're wondering about—in this case, *dinosaurs*—with a Wh-word. (Cf. *Sue ate the cake. What did Sue eat?*) So clearly, the question should be able to mean something; there's no reason we shouldn't be able to start with a DS along the lines of *Sally's theory about what impressed Sue*. What is weird is that you simply cannot ask this question. Why not?