

## Wh-questions

In addition to the yes/no questions that you investigated in Assignment 2, English also contains questions that make use of a set of words called *wh*-phrases (e.g., *who*, *what*, *where*, *when*, *why*, etc.), as in (1a-c).

(1) a. What should she ask for?  
b. When will the first snow arrive?  
c. Who have you invited?

**Your task** Assume whatever mechanism you proposed in Assignment 2 (or whatever we agreed on in class) to derive the word order of the subject and auxiliary verb in yes/no questions. Then use the facts below (and any other data you think relevant) to evaluate the following two hypotheses about the syntax of *wh*-questions.

(2) *Hypothesis X*

*wh*-phrases are merged in their surface positions. No special mechanisms (aside from whatever handles subject/auxiliary word order) are necessary to generate *wh*-questions.

(3) *Hypothesis Y*

*wh*-phrases are merged in the positions with which they are semantically ‘linked’ (e.g., *who* in (1c) is merged as the direct object of *invited*) and the surface word order is derived by a movement operation.

For each hypothesis, begin by stating any crucial new assumptions about lexical entries or the generative component that are necessary to make it work, then show how it derives (1c). In the case of Hypothesis Y in particular, you should provide a statement of the movement operation you are assuming that is as explicit as possible, saying both how it is supposed to work and what its output is (i.e., where the *wh*-phrase sits after movement).

Next, consider the pattern of grammaticality found in the questions and nonquestions below. Do Hypotheses X and Y provide equally explanatory accounts of the data? If so, how? If not, why not? What further mechanisms would need to be assumed to ensure the right results? Be clear and explicit at every point.

(4) a. They are planting daffodils in the afternoon.  
b. What are they planting in the afternoon?  
c. \*What are they planting daffodils in the afternoon?

(5) a. Sylvia has invited James.  
b. \*Sylvia has invited  
c. Who has Sylvia invited?  
d. \*Who has Sylvia invited James?

(6) a. Max can rely on us.  
b. \*Max can rely on.  
c. Who can Max rely on?  
d. \*Who can Max rely on us?  
e. \*Who can Max rely?

(7) a. Matilda will put irises under the tree.  
b. \*Matilda will put irises?  
c. \*Matilda will put irises under.  
d. \*Matilda will put under the tree.  
e. What will Matilda put irises under?  
f. What will Matilda put under the tree?  
g. \*What will Matilda put irises under the tree?  
h. \*What will Matilda put?