TIIAME:Questions in English

- Yes/no questions are marked only by subject-auxiliary inversion, i.e., an overt syntactic change in word order in which the auxiliary is raised into C. Do-support operates when there is no auxiliary is the declarative.
- [Spec, CP] is the target for overt Wh-movement both in matrix and embedded clauses, with subject-auxiliary inversion in matrix clauses, but not in embedded clause. Do-support operates when there is no auxiliary is the declarative.

    a. What did the child see?

    b. The teacher wondered what the child saw .

TD Acquisition

Phase I

- Children use neither modals nor auxiliaries
- Yes/no questions are marked only with rising intonation
- Wh-word appears sentence initially in wh-questions without inversion.
- A limited set, ‘what,’ ‘where’ and ‘why,’ (‘where NP go?,’ ‘what NP doing?’)
- Children do not seem to understand wh-questions and their responses are often inappropriate (Radford 1990)

Phase II

- Auxiliary verbs are used in subject auxiliary inversion for yes/no questions
- Auxiliary verbs are not used for wh-questions.
- Wh-questions involve productive use of an extended set of wh-words, but no inversion.

Phase III

- Children make adult use of question formation, which involves subject-auxiliary inversion.

What determines the order in which questions are acquired?

- Wh in-situ hypothesis (WISH) – universally wh in-situ with no overt movement is allowed by UG. Subject questions can be interpreted as in-situ, while objects require movement.
- Vacuous movement hypothesis (VMH) – the wh-parameter can be either + or – movement, but we should not have both options within one language. In English all questions involve movement, only it is invisible for subjects
- Proper government hypothesis (PGH) - traces (of movement) must be properly governed. Object traces are theta-governed by the verb, while subject (and adjunct) traces must be antecedent governed (cf. complements are obligatory, everything else is optional).

Predictions:

- WISH – subject questions first
- VMH – subject and object questions at the same time
- PGH – object questions first

Stromswold, K. 1995. The acquisition of subject and object wh-questions .*Language Acquisition*48-5 ,4 ,

- Longitudinal study of 12 children in CHILDES.
- *Who* and *what* are acquired almost simultaneously, around age 2;5. Object questions are acquired at the **same age or earlier** than subject questions .
- All children asked at least one long distance object question (mean age 2;10), but only one child asked a long distance subject question (at 5;0).

By the age of 2;6

- TD children use wh-movement properly
- TD children do not show problem with wh-non-local dependency
- TD children have no problem with theta-government

Wh-movement in children with grammatical SLI: A test of the RDDR hypothesis

Van der Lely HKJ and Battell J (2003) , *Language* 79: 153-181

- SLI subjects fail to master the syntax of the two types of movement operation involved in wh-questions (preposing a wh-expression and preposing an auxiliary).
- This is the result of difficulties they have in processing non-local dependencies.

Subjects

- 15 SLI subjects aged from 11;3 to 18;2
- 12 TD (typically developing) grammar-matched children aged from 5;3 to 7;4
- 12 TD (typically developing) vocabulary-matched children aged from 7;4 to 9;1

Method

Wh-questions containing *who*, *what* and *which* by getting the subjects to play a version of the board game *Cluedo:*

Prompt	Target response
Mrs Peacock saw someone in the lounge. Ask me who	Who did Mrs Peacock see in the lounge?
Mrs Brown placed something in the library. Ask me what	What did Mrs Brown place in the library?
Professor Plum wore a coat. Ask me which one	Which coat did Professor Plum wear?

Findings

Types of error produced by the subjects			
	SLI subjects	**Younger TD controls**	**Older TD controls**
No errors	0/15 (0%)	6/12 (50%)	12/12 (100%)
AUX errors only	3/15 (20%)	4/12(33%)	0/12 (0%)
WH errors only	0/15 (0%)	1/12 (8%)	0/12 (0%)
WH and AUX errors	12/15 (80%)	1/12 (8%)	0/12 (0%)

Wh-errors

(a) Who Miss Scarlett saw somebody? (Response to 'Miss Scarlet saw someone in the lounge. Ask me who' – the target response being *Who did Miss Scarlet see in the lounge?*)

(b) Which Reverend Green open a door? (Response to 'Reverend Green opened a door. Ask me which one' – the target response being *Which door did Rev. Green open?*).

(c) What did Colonel Mustard had something in his pocket? (Response to 'Something was in Colonel Mustard's pocket. Ask me what' – the target response being *What was in Colonel Mustard's pocket?*).

Summary of findings

- SLI subjects have far more problems with the syntax of wh-questions than language-matched TD controls.
- The pattern of errors made by the SLI subjects differs from the pattern of errors made by the TD subjects:
  - Most SLI subjects have problems with both auxiliaries and wh-expressions
  - Most TD subjects have problems with neither, or only with auxiliary inversion .

Can it account for auxiliary inversion errors?

1. What cat Mrs White stroked?
2. What did they drank?
3. Who Mrs Brown see?

Wh-Errors in Leonard Corpus

1 Which one I can do? (C ‘Which one can I do?)
2. What Kent’s gonna play with? (C ‘What’s Kent gonna play with?)
3. How you knowed? (E ‘How did you know?’)
4. What he did? (F ‘What did he do?’)
5. What you doing? (E ‘What are you doing?’)
6. What this for? (G ‘What is this for?’)
7. How much we got to do? (J ‘How much have we got to do?’)
8. How you get this out? (A ‘How d’you get this out?’)
9. What this do? (A ‘What’s this do?/What does this do’)
10. How open it up? (B ‘How d’you open it up?’)
11. What say? (B ‘What d’you say?’)
12. Where go on? (B ‘Where’s it go on/Where does it go on?’)
13. How much long gonna be? (A ‘How much longer’s it gonna be?’)
14. These do? (C ‘What do these do?’)
15. What is this is? (H ‘What is this?’)

The Uninterpretable Feature Deficit Model (Tsimpli and Stavrakaki 1991)

- SLI children have problems with movement operations, because these are driven by uninterpretable features.
- Chomsky (2006) argues that wh-movement is driven by an uninterpretable edge feature on C which (in an interrogative clause) attracts an interrogative wh-expression to move to the edge of CP
- Pesetsky and Torrego (2001) argue that auxiliary inversion is driven by an uninterpretable tense feature on C which attracts a tensed auxiliary to move from T into C.
- Can UFDM account for why the SLI children in the Leonard corpus show perfect performance on wh-movement but perform much more poorly on auxiliary inversion .

Controlled naturalistic sample (Michal Cohen 2008)

- A twenty centimeter square box is presented which contains different objects:
- The investigator tells the child that there is a surprise in the box. If the child wants to open the box, she has to find out what is in the box by asking questions.
- Once a relevant question regarding the content of the box is asked, she received one object from the box.

Elicited Production

The nurse feeds someone. Burney knows who. Ask Burney.

Picture selection task

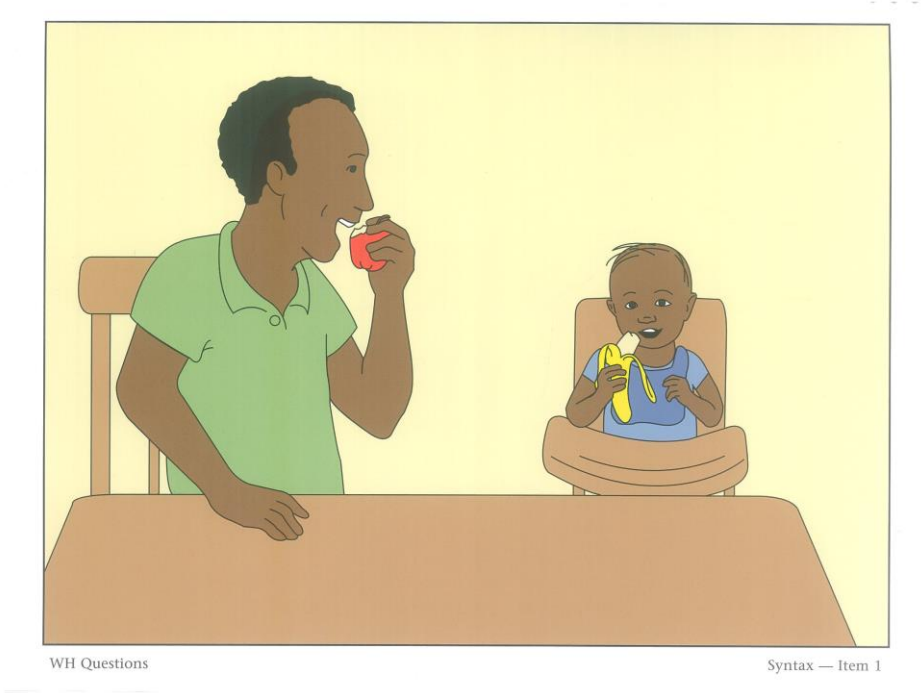
Michal Cohen

Subject vs. Object

Other topics: From Singleton to Exhaustive: the Acquisition of Wh-

Roeper, T., Schulz, P., Pearson, B. Z. & Reckling, I. (2006). From singleton to exhaustive: The acquisition of *wh-. Proceedings of SULA 2005 Conference (Semantics of Understudied Languages),* Buffalo NY.

Who is eating what?



Double wh-question - Paired answer

Who is wearing a hat?

Exhaustive answer, singleton answer, plural answer

The [+variable] Feature

- Necessary in order to **recognize exhaustivity**
- **Specificity**: relating to pre-established elements in the discourse
  - +Specific = - variable = singleton,
  - -Specific = +variable = exhaustive/paired.
- **Child's initial default assumption**: Questions are specific in nature

Results

- All children pass through a singleton stage around age 4-5.
- **Singleton readings in four-year-olds:**
  - English 79%, German 52%
- **Exhaustive responses**
  - Age 5: German 80%, English 27%
  - Age 6: German 85%, English 75%
  - Age 7: German 84%, English 74%
- **Plural responses: 6%**