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Handout #3

LD *Which*-questions in L1 French.
Unexpected SM strategies

Latest experimental study (S#5, April-May 2007)
35 children aged 2;11 to 6;03. See Oiry (in prep.), D&O 2007.

i. Elicited production task of LD question on the 3 conditions discussed in Handout #2: Felicitous vs. Infelicitous contexts for a SM question in Hindi/German.
ii. Comprehension of LD questions
iii. Medial *wh*-answers
A qui le garcon demande quoi apporter ?
'To whom does the boy ask what to bring?'
Provide evidence that the child treats the *wh*-complement clause as an *independent* clause since s/he answers it.
Recall that in L1 English, the medial-*wh* answer is retained late (until roughly 6).

→ **Elicited production task (i) was harder in 2 respects.**

1a. Original protocol, LD-subject extraction:
… Let's see **who** Koko thinks is hidden under the bed.
Lead in: Ask him
If the child doesn't ask a question or does not ask the *expected* question:
2nd lead in: Ask Koko **who/which animal** he thinks is hidden under the bed.

b. Eliminate the target WH from the 2nd lead in:
… Let's see if he can guess **who/which girl** is hidden under the bed, OK. (We know its Ann who is hidden under the bed, but he doesn't, so let's see if he can guess.)
Lead in: Ask him what he thinks

2. Few LD *which*-questions volunteered over the years.
Make the context more appropriate for using a *which*-phrase
Instead of different animals (target *which* animal) or fruit (target *which* fruit), we had 3 or more different rabbits or cats (target *which* cat/rabbit), different colored lollypops (target *quelle* sucette) …

→ *Which*-questions crucial for disambiguating the syntax of LD subject/object extraction because of the ambiguity of *que*/*qui*: complementizers vs. bare *wh*-phrases?

3. **Exceptional questions** (see (30) Handout 2)

a.	Tu	crois	**quoi**	**qui**	est	caché	dans l'sac ?
	you	believe	what	?	is	hidden	in the-bag

DD: Fronted subordinate *quoi* + C° (*que* > *qui*)
ID: Matrix in situ *quoi* + in situ subordinate subject *wh*-phrase *qui*

4. **Object LD questions:**
Qu'est-ce que tu penses, Koko, *que* Marie elle a cache ?
What-is-it that you think, Koko, that Mary, she hid?
Could be analyzed as a SM question with 2 *wh*-phrases: KESK & *que.*

5. **Subject LD extraction**
a. Adult: ***Qui-est-ce*** que tu penses, Pierre, *qui* a sauté ?
Who-is-it that you think, Pierre, that jumped?

5b. Volunteered (quite systematically):
Qu'est-ce que tu penses, Pierre, *qui* a sauté ?
What-is-that you think, Pierre, *that/who* jumped?

I. The Typology of (LD) *which*-questions

5 target LD questions per child
→ **No** LD in situ *which*-questions
→ Full (phrasal movement): **only 2 items**

6a. **Lequel** tu penses qu'est caché dans la boîte ? Elorn (5.05)
'Which one you think is hidden in the box?'

b. **Quel smarties** tu penses que l'indien mange? Julia (5.09)
'Which smarty you think that the indian is eating?'

I.1 Avoiding LD extraction:

7. **Root-2 questions**, only under Condition 1, *The Guessing Game*
→ Felicitous in this context (see Hand out 2; also volunteered by adult controls)

a. C'est laquelle fille qu'est cachée? *Cleft*
'It is the-which girl that is hidden?'
b. Lequel lapin est caché dans le truc jaune?
'The which rabbit is hidden in the yellow thing?'
c. Il mange quelle sucette, le policier? *In-situ* object
He eats which lollipop, the policeman?
d. KESK … Lequel endroit il est l'assiette? *Fronted* adjunct (target *where*)
'Which place, it is the plate?'
e. Quelle fille a caché le policier, koko ? *Fronted* object (+ subject inversion)
'Which girl the policeman hid?'
f. Lequel gâteau elle mange ? *Fronted* object
'The-which cake, she ate?'

→ (8a-b) & (9) are productive strategies, also volunteered by adult controls:

8. **Embedded *which*-clefts** (adult DD strategy)

a. You think that it is **which one** that …
Tu penses que c'est lequel qui est caché dans la boîte?
Tu penses que c'est laquelle qu'est cachée, Koko?
b. You think that it is **which NP** that …
Tu penses que c'est quelle fille qu'il a caché?
Tu penses que c'est quel chat qui est caché dans la boîte?
c. You think that it is **the-which NP** that …
Tu penses que c'est lequel lapin qui est caché dans la boîte ?
Tu crois que c'est lequel lapin? *Truncated cleft*
Tu penses que c'est **quel ou lequel chat** qu'est caché derrière la boîte?

9. **Yes-no indirect questions** (adult like)
a. Est-ce que tu peux deviner c'est laquelle sucette ?
'Can you guess it is the-which lollipop ?'
b. Tu sais lequel gateau on a donné à maman ?
'You know the-which cake, we gave mummy?'
c. Koko, tu sais quelle fille/chat/voiture est caché?
'Koko, you know which girl/cat/car is hidden?'
d. Koko, est-ce que sais quelle sucette que mange le policier ?
'Koko, do you know which lollipop that the policeman eats.'

➞ Yes-no Qs requires an answer
Cooperative answer: 'Yes. The purple one.' and not merely, 'Yes. I know/I can guess.'

10. **Exceptionnal Qs: Indirect Dependency**
a. [$_{CP1}$ **What** you think [$_{CP2}$ **which NP** …
Qu'est-ce que tu penses quelle voiture/quel lapin est cachée/caché ?
b. [$_{CP1}$ **What** you think [$_{CP2}$ (it is) **the-which NP** …
Q'est-ce que tu penses, c'est laquelle fille qu'il a caché le policier?
Qu'est-ce que tu penses que laquelle voiture, *soit la petite soit la grande*, qui est cachée dans le seau?

I.2 Avoiding LD phrasal movement: separation constructions

I.2.1 Adult like extraction from object position

11a. [$_{CP1}$ **what** you think [$_{CP2}$ that [$_{IP2}$ NP V ~~**what**~~ [**as NP**]]]] ➞ **D°/Q° raising**
b. [$_{CP1}$ you think [$_{CP2}$ NP V **what** [**as NP**]]

12. **Root-2 Qs,** only under Condition 1, *The Guessing Game*
a. Le policier, **qu'est-ce** qu'il a caché **comme fille** ?
'The policeman, what did he hide as a girl ?'
b. Il a mange **quoi comme gouter** ?
'He ate what as an (afternoon) snack?

13. **Embedded cleft**
Tu penses que c'est **quoi** qu'il mange **comme** fruit, l'indien ?
'You think that it is what he eats, as fruit, the Indian?'

14. **LD extraction**
a. **Qu'est-ce** que tu penses que (ta) maman t'as acheté **comme cadeau** ? Elorn (5.05)
'What do you think that (your) mummy bought you as a gift?'
b. **Qu'est-ce** que tu penses que Maman mange **comme gateau** ? Julia (5.09)
'What do you think that Mummy ate as a cake?'
c. Stranding the restriction at the periphery of CP2
Qu'est-ce que tu penses [$_{CP2}$ [**comme voiture**] est caché dans la boite jaune ? Elorn (5.05)
'What do you think that as a car is hidden in the yellow box?'

15. **LD in-situ**
a. Tu penses que l'indien mange **quoi comme fruit** ?
'You think that the Indian eats what as fruit?'
b. Tu penses que, maman, elle a acheté **quoi comme cadeau** pour ton anniversaire ?
'You think that, Mummy, she bought you what, as a gift, for your birthday?'

➞ (14-15) (13?) also volunteered by our adult controls.

I.2.2 Exceptional Qs
Non-adult extraction from subject position

16. [$_{CP1}$ **what** you think [$_{CP2}$ that [$_{IP2}$ [$_{DP}$**The** ~~**what**~~ **NP**] VP]]]

➞ Note crucially that the stranded restriction of the matrix Q° is not an indefinite, but a **definite** NP

17. *Target*: Which rabbit/which girl/which car/which cat is hidden?
Which girl do you think will invite you?

a. **Q'est-ce** que tu penses que **le lapin** est caché ?
b. **Q'est-ce** que tu penses que **la fille** est cachée ?
c. **Q'est-ce** que tu penses que **la voiture** est cachée ?
d. **Q'est-ce** que tu penses que **la copine** va t'inviter ?

➞ These exceptional Qs where volunteered by 2 children: Elorn & Julia
The only 2 children who volunteered LD phrasal movement of *which*-phrases: see (6) above

Elorn: **Only** LD-movement questions (**no** ID/DD SM):
Adult full phrasal movement
Separation constructions: from object position (14a/c) & from subject position (17).

Julia: Nearly only **LD-movement**, including adult full phrasal movement
& separation constructions: from object (14b) and subject (17) position
but also 1 ID SM question (adjunct extraction: 'What do you think how I go home?')

➞ That the restriction of a *which*-Q° is a **definite** NP & further appears **in-situ,** is expected on Beck& Rullmann's/ Rullmann & Beck's analysis of *which*-questions.

18. B&R (1998), R&B (1998): ***which*-phrases as definites**
a. Which linguist did Rosa see?
➞ The restriction of the *which*-Q° ('*x* is a linguist') must be presupposed, rather than asserted, so that (18a) denotes a set of propositions of the form 'Rosa saw the linguist x':
b. {Rosa saw the linguist Sportiche, Rosa saw the linguist Koopman, Rosa saw the linguist Rizzy, Rosa saw the linguist Polinsky}
LF of (16a), after *reconstruction* of the restriction, comes out roughly as:
a'. For which *x*: Rosa saw the linguist *x*.
d. Who will be offended if we invite which philosopher?
d'. LF: For which *x, y*: if we invite the philosopher *y*, *x* will be offended.

➞ The restriction of a *which*-phrase is a definite, interpreted in-situ (via reconstruction).

19a. Quel chat 'which cat'
b. Lequel/Laquelle 'which one'
c. *Lequel chat

➞ Recall that children productively volunteer (19c). See (7b/f), (8c), (9b), or (10b)
[The which cat/girl/car].
On B&R's analysis, *which*-phrases decomposed into 3 elements:
Definite D°, a WH element & an NP restriction:
i. which-NP = the NP WH
ii. WH introduces the variable bound from outside by matrix Q° at LF

➞ On this account, we have 2 D° splitting/raising strategies in L1 LD questions:
i. Raising of *what* in (11a, 12-14) is an adult strategy
ii. Splitting & raising of *what* in (17) is a non-adult strategy, transparently reflecting the semantic structure of *which*-questions.

I.3. Avoiding *wh*-movement altogether: Alternative Questions

➞ See Hye-Han & Romero (2001, 2002, 2004) & references therein:
Yes-no Qs with an overt disjunctive phrase providing the choices that the Q ranges over can have either of 2 readings.

Examples adapted from Hye-Han & Romero 2004:

20. *Root Q*
a. Did John eat beans or rice?
Yes-No Reading*:*
b. Is it true or false that John ate any of these 2 things: beans or rice?
Alternative reading:
c. Which of these 2 things did John eat: beans or rice?

21. *Indirect Q*
a. I wonder whether John eat beans or rice
Yes-No Reading*:*
b. I wonder whether it is true or false that John ate any of these 2 things: beans or rice?
Alternative reading:
c. I wonder which of these 2 things John ate: beans or rice?

22. **LD Q**
a. Do you think that John ate beans or rice?
Yes-No Reading
b. Is it true or false that you think that John ate any of these 2 things: beans or rice?
Alternative reading:
c. Which of these 2 things do you think Max ate: beans or rice?

➞ Alternative Question: interpretation of a *wh*-question without a *wh*-phrase.
The disjunctive phrase provides alternatives in a way similar to a *wh*-phrase.
von Stechow 1991: "disjunctive phrase acts exactly like a *wh*-phrase without being one".

➞ Roughly, 2 approaches to the syntax of the alternative reading:
Ellipsis vs. movement of *whether/*null SM/Q°
For specific proposals, see Larson 1985, Swartz 1999, Beck & Kim 2006, H-H&R.

23. *Clausal coordination + ellipsis/gapping* (see Swartz)

a. Did John eat beans or rice?
a'. Did [[$_{IP1}$ John eat beans] or [$_{IP2}$ ~~John eat~~ rice]]?
a". Which one is true: John ate beans or John ate rice?

23b. Do you think that John ate beans or rice?
b'. Did [$_{IP1}$ you think that John ate beans] or [$_{IP2}$ ~~you think that John ate~~ rice]?
c". Which one is true: you think that John ate beans or you think that John ate rice?

24. *Larson's 1985 movement account:*
SM, *whether/*null **Q°** operator, base-generated adjacent to the disjunctive phrase
& undergoing movement to the matrix Spec CP like a *wh*-phrase
in order to mark the (matrix) scope of disjunction:

a. Did John eat beans or rice?
a'. **Q** [did John eat [$_{DISJUNCTIVE\text{-}P}$ ~~**Q**~~ [beans or rice]]]? (NP level disjunction)
a". Which did John eat [beans or rice]?

➞ *Whether* developed as the *wh*-counterpart of *either*.
Original meaning "which of either A or B".

b. Do you think that John ate beans or rice?
b'. **Q** do you think that John eat [$_{DISJUNCTIVE\text{-}P}$ ~~**Q**~~ [beans or rice]]
b". Which do you think John ate: beans or rice?

25. *H-H&R's hybrid proposal:* ellipsis + **Q°**/*whether* movement

a. Did John eat beans or rice?
a'. **Q** did [$_{DISJUNCTIVE\text{-}P}$ ~~**Q**~~ [John eat beans or ~~John eat~~ rice]]
a". Which one is true: John ate beans or John ate rice?

➞ IP level disjunction + gapping
& SM (movement of Q°) responsible for the matrix scope of disjunction

b. Do you think that John ate beans or rice?
b'. **Q** do you think that [$_{DISJUNCTIVE\text{-}P}$ ~~**Q**~~ [John eat beans or ~~John eat~~ rice]]

➞ Disjunction of *embedded* clauses + gapping
& SM (Movement of Q°) responsible for matrix scope of disjunction
b". Which do you think: John ate beans or John ate rice

I.3.1. The syntax of alternative questions in L1 French

26a. Tu penses que c'est **quel** fr... /que **ce qu'il**/qu'i mange des bananes ou une orange?
'You think that that its which fr(uit) / that what he (eats) / that he eats bananas or an orange?'
b. Tu penses qu'il est caché dans la cuisine ou dans le jardin?
'You think that he is hidden in the kitchen or in the garden?'

27. **Alternative clefted questions**
a. Tu penses que c'est Pierre ou Margot qu'a sauté par dessus ?
'You think that it's Pierre or Margot that jumped over?'

➞ Coordination of 2 embedded IPs + Right Node Raising of the post focal RC à la H-H&R
b. Q° You think that [$_{DISJ\text{-}P}$ ~~Q°~~ [$_{IP}$ it's Pierre e_1] or [$_{IP}$ it's Margot e_1] [$_{RC}$ that jumped over]$_1$]
SM: Q° movement to expand the scope of the embedded disjunction

28. **Alternative truncated clefted questions**
a. **Est-ce** que tu crois que c'est la voiture bleue ou la voiture rouge [~~qui est cachée~~] ?
'You think that it's the blue car or the red car ~~that is hidden~~?'

26b. Tu penses que c'est le lapin noir et blanc, le lapin marron ou celui qu'à la loupe
[~~qui est cachée~~] ?
'You think that it's the black and white rabbit, the brown rabbit or the one with the magnifying glass ~~that is hidden~~?'

c. Tu penses que c'est la bleue, celle là qu'a les couettes ? et les autres je m'en rappelle plus.
'You think that it's the blue one, that one that has the pigtails?
And the others, I don't remember.'

27. **Overt Clausal disjunction (truncated cleft)**
Tu penses que c'est Margot ou tu penses que c'est Pierre ~~[qui a sauté par dessus Anne]~~ ?
'You think that it's Margot or you think that it's Pierre ~~that jumped over Anne~~?'

→ Coordination of 2 matrix IPs + Right Node Raising of the post focal relative:

b. Q° [$_{\mathbf{DISJ\text{-}P}}$ ~~Q°~~ [$_{\mathbf{IP}}$ You think that it's Pierre e_1] or
[$_{\mathbf{IP}}$ you think that it's Margot e_1] [$_{\mathbf{RC}}$ that jumped over]$_1$]

28. **SM with embedded *alternative* questions**

a. Hindi allows SM with embedded alternative questions (Chung-Hye & Romero 2004)

[$_{CP1}$ tum	**kyaa**	sochtaa hai]	[$_{CP2}$ ki	Chandra-ne	coffee	pii	thii	yaa	chai]
you	what	think	that	Ramma	coffee	drink	past	or	tea

'Which does John thinks: that Chandra drank coffee or that Chandra drank tea?'

→ **SM** *Kyaa* obligatory on the alternative Q reading
but optional on the yes-no reading.

b. **SM with embedded alternative questions in child French:**

Qu'est-ce que tu penses si il y a une araignée qu'a poussé le coffre
'*What*-is-it-that you think if there is a that pushed the trunk,

ou ça soit un fantôme qu'a poussé le coffre ?
or it is a ghost that pushed the trunk?' Sorenza (5.01)