The basic question is still unanswered to my mind.
- Which structures were already acquired before the wh-variants?

What do Dutch children (in a V-2nd environment) make of the learning steps for wh-questions?

What do English children (in a residual V-2nd environment) make of the learning steps for wh-questions?

The question was simple, the answer astonishing.
Move <+wh> in a V-2nd language

\[
[<+\text{wh}> - ]_{\text{DP}} [<+\text{fin}>_{\text{V}} \ldots t_{<+\text{wh}/\text{DP}>} \ldots t_{<+\text{fin}/\text{V}>}]
\]

- \text{welke bal / which ball}
- \text{moet / must}
- \text{pakken / grab}

- \text{wat / what}
- \text{wil / will}
- \text{etc...}

\[
[\text{Jan } t_{<+\text{wh}/\text{DP}>} \text{ pakken } t_{<+\text{Aux}/<+\text{fin}>}]?
\]

\[
[\text{John } t_{<+\text{wh}/\text{DP}>} \text{ grab } t_{<+\text{Aux}/<+\text{fin}>}]?
\]

\[
[\text{Jan } t_{<+\text{wh}/\text{DP}>} t_{<+\text{V}/<+\text{fin}>}]?
\]

\[
[\text{John } t_{<+\text{wh}/\text{DP}>} t_{<+\text{Aux}/<+\text{fin}>}]?
\]
Structure build-up by movement

CP [operator-marked predication]
  Spec.C
  Wh-operator
  C^0
  Tense operator
  IP/VP [underlying predication structure]
    argument
    predicate head

Wh-movement

V-2nd
Acquisition order: Dutch

Dutch children

First step: - V-second
- an argument gap
- no (wh)-operator

Second step: - wh-operator pronoun (single pro)

Third step: - wh-phrases by pied piping

Dutch order: Examples

1) - ∅ ga jij nou heen? (∅ go you then to? = where are you going to?)
   - ∅ zit vogeltje nou op? (∅ sits bird then on? = what is the bird sitting on)
2) - waar zit de vogel op? (what sits the bird on? = on what is the bird sitting)
3) - op welke tak zit de vogel? (on which branch is the bird sitting?)
Acquisition order: English

English children

First step:  - wh-operator pronoun (single pro)
- an argument gap
- no (residual) V-second

Second step:  - (residual) V-second

Third step:  - wh-phrases by pied piping

English order: Examples

1)  - what ∅ daddy eat(ing) ?
2)  - what is daddy eating ?
3)  - which cake is daddy eating ?
Acquisition order: Dutch versus English

Main point

Dutch: move <+fin> thereafter move <+wh>
English: move <+wh>, thereafter move <+fin>
Acquisition order: Dutch

Dutch

Acquisition order:

1e Ø Ø [jij nou \( t_{wh} \) doen]?
2e Ø ga [jij nou \( t_{wh} \) doen]?
3e Ø doe [jij nou \( t_{wh} \)]?
4e wat doe [jij \( t_{wh} \)]?
Wh-movement/D-marking Week 2-Wednesday 8

Acquisition order: English

English

```
CP
  /
/   /
Spec  C'

C°
<+fin>

IP
  /
  /
  /
  /
 t <+aux> V t <+wh>

1e what Ø [you doing ]
2e what Ø [you doing t_{wh}]
3e what are [ you t_{aux} doing t_{wh}]
```
The child needs preliminary structure before move <+wh> can be acquired

How may the child assume  
- $t_{/+wh}$: the argument gap
- $t_{/+fin}$: the predicate head gap

- The $t_{/+wh}$ follows from the preliminary acquisition of argument structure in Dutch and English
- The $t_{/+fin}$ makes a huge difference between English (residual V-2\textsuperscript{nd}) and Dutch (full V-2\textsuperscript{nd})
Acquisition order: Dutch versus English

English
✓ Why is residual V-2\textsuperscript{nd} later?
   The $t_{<+\text{aux}>}$ does not follow from a theta-frame and takes considerable acquisition time. It is non-salient.

✓ Why is English <+wh> early?
   It first functions as a question operator like Dutch *nou*
   *where mummy? mama nou?*

Dutch
✓ Why are auxes early in Dutch V-2\textsuperscript{nd}
   They are frequent/salient and interpretable as C-operators.

✓ Why is <+wh> relatively late in Dutch?
   The question operator *nou* and the (acquired) V-2\textsuperscript{nd} already realize the statement/question opposition.
Acquisition differences

- If the thing is interpretable as an operator, it is early (non-movement) *where mummy? mama nou?*

- If it is interpretable by a trace in argument structure, it is relatively late (follows I-marking by V-2\textsuperscript{nd}).

- If it is neither a clear operator nor part of argument structure, it is very late.

The explanation of the Dutch/English differences rests on the learnability differences of the underlying structure.
Fixed argument structure

I-marking guarantees/imposes subject-predicate structure (EPP) on utterances.

I-marking was subject to an acquisition period and in competition with unspecified forms such as root infinitives.

✔ Question: What is fixed argument structure?
✔ Answer: Explicit grammatical argument marking by abstract case.
Fixed argument structure

Abstract case (Rouveret & Vergnaud)

- Marking of the argument phrase (morphological case)
- On the head of the argument phrase
- On the border of the argument phrase (<+D> marking and <+P> marking)
- Fixed V⁰-complement configurations
Fixed argument structure

Abstract case

Configuration order V°-argument

I°/D° system

Case system

a mixture of

Bottom line:
I-marking: grammatically explicit predication structure
D-marking: grammatically explicit argument marking

Question:
When and how are these functions acquired?