“The Acquisition of the English Verb – How do we know when Children acquire what?”
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I. Introduction

Learning the correct markings for tenses, finding out about the different uses of modal auxiliaries and detecting ambiguities... Just a few difficulties a child has to overcome in order to produce correct adult English. And that makes it such an interesting topic.

In this paper I will try to answer the topic question of my paper: “How do we know when children acquire what?”. The paper is subdivided into two main parts. In the first part I will discuss some of the problems that occur in the English verb acquisition research. In the second part I will show how researchers are confronted with these problems when they design and carry out a study in order to support their hypothesis.

II. Problems in verb acquisition

In this part I am going to give an overview on the problems that occur in the English verb acquisition. There are three major problems to be discussed: The problem to say at what specific point of time a child has acquired a verb form (A), the problem of how children acquire verbs (B) and the problem to find out what exactly the child has acquired (C), mainly based on De Villier and de Villier (1985) (A), Radford (1999) (B) and Fletcher (1979) (B+C).

A. Problem One:

When has a Verb Form been acquired?

In acquisition research the course of development is regarded as crucial. Researchers have to find out when (at what age) children produce what kind of output.

First of all it is quite obvious that not every child goes through linguistic development in the same speed. As we are all human beings we the same
are all individuals and our abilities to learn and produce language may vary. There are always so called “slow-developers” and “fast-developers”. A child’s development is also influenced by the input they receive. This input is mainly produced by the parents. Here one can see that many individual social criteria can influence a child’s development (e.g. the social background of the parents and how much time they spend with their child). Age is therefore not always a good criterion to analyse structures of children’s linguistic abilities because although they are the same age they could be on different levels of speech development. ¹

Another problem in developmental linguistics is the question exactly when one can say that e.g. a new word, new verb form or structure is acquired. There are several methods that describe how one can decide that. An example for the difficulties that may occur is a comparison of two different orders of acquisition concerning “The Fourteen Grammatical Morphemes”²:

<table>
<thead>
<tr>
<th>The 14 Grammatical Morphemes</th>
<th>Average Order of Acquisition from Brown</th>
<th>Order of Acquisition from de Villiers and de Villiers (Method I)</th>
</tr>
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<tbody>
<tr>
<td>Present progressive</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>On</td>
<td>2.5</td>
<td>2</td>
</tr>
<tr>
<td>In</td>
<td>2.5</td>
<td>4</td>
</tr>
<tr>
<td>Plural</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Past Irregular</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Possessive</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Uncontractible Copula</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Articles</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Past Regular</td>
<td>9</td>
<td>10.5</td>
</tr>
<tr>
<td>Third Person Regular</td>
<td>10</td>
<td>10.5</td>
</tr>
<tr>
<td>Third Person Irregular</td>
<td>11</td>
<td>8.5</td>
</tr>
<tr>
<td>Uncontractible Auxiliary</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Contractible Copula</td>
<td>13</td>
<td>8.5</td>
</tr>
<tr>
<td>Contractible Auxiliary</td>
<td>14</td>
<td>13</td>
</tr>
</tbody>
</table>

¹ I will go further into this topic in part III.
² Brown’s “The Fourteen Grammatical Morphemes” contain all function words that are needed by children to modulate and to widen the meaning of content words.
Brown ranked the morphemes by the 90% criterion. This means that if the child produces 90% of the particular utterance (here: one of “The Fourteen Morphemes”) correctly Brown will consider it (e.g.: third person singular) as acquired.

De Villier and de Villier used a slightly different method which I will not explain in detail. It is only important to see that the major discrepancy between the two methods was in the order of acquisition of the contractible and uncontractible forms of the copula and auxiliary.

It is quite clear that there cannot be one correct or incorrect order of acquisition when one keeps in mind that children are individuals and that each child learns in his or her individual way. Using different methods, which consider different details, will almost exclusively lead to different results. There are maybe good and bad methods but there cannot be a model solution.

B. Problem Two:

How do children acquire verbs?

Many people still think that children acquire language by heart. The development of the past tense is an example for how children really acquire verbs.

A look on table 1 should make an attentive observer wonder: Both methods show that irregular past tense forms are acquired earlier than the regular forms. This looks strange at first because one assumes that a child would first learn the regular past tense suffix –ed and later the exceptions (the irregular forms). But what happens is indeed not strange at all:

\[\text{Taken out of De Villier and de Villier (1985:68)}\]
The first irregular past tense forms a child produces occur in relatively small numbers and they include some of the frequently used verbs in English like *was, had, came, went, brought* and *took*.

The regular past tense suffix *-ed* occurs after a period in which the irregular forms are produced correctly. But the child then incorrectly applies the regular past tense suffix to a verb base which requires an irregular process: *went* and *came* are replaced by *goed*[^4] and *comed*. The technical term for this is: over-generalisation. Over-generalisation of the regular past tense suffix typically occurs in the child’s third year.

Forms like this demonstrate that children are operating in a rule-governed fashion. Because such forms as *goed* and *comed* are uncommon in the speech children will receive as input, one can see that they applied a rule (*-ed* ending marks past tense). Just after some time they will see that there are irregular forms and learn those by heart. One can assume that the first irregular past tense forms are learned by heart because they occur in small numbers.

Over-generalisation is a clear indicative of a reliance on a rule system. And this example shows that children do not learn by heart but that there are more cognitive processes than one assumes at first.

**C. Problem Three:**

*What exactly has the child acquired?*

It is not only difficult to say when children have acquired verbs or how they do it, there are also some cases where one cannot identify what the child has acquired.

[^4]: * indicates that the form does not exist in correct English
The first problem is to identify the form of the verb the child produces. It is especially difficult with identifying present perfect forms. Studies on the acquisition of perfect forms all state a relative lateness of development. The correct use is generally stabilised somewhere between the age of four and six.  

But there are some studies which find the present perfect earlier. They state that children under 3;6 use present perfects in some numbers. These results could derive from the analytical problems which are presented by the third person singular contracted forms of have. A contracted ‘s appears in many different environments. If one compares examples in 1) and considers them as a child’s utterances than it is difficult to say where the contracted ‘s derives from is or has.

1) He’s jumped, She’s finished, It’s died , What’s that, When’s he coming, It’s broken, He’s tired, She’s happy

It is important therefore to know which forms are analysed as perfect forms and which are not. One should put considerable care in identifying early perfect forms to avoid over-analysing the child’s output.

But it is not only difficult to identify the form of verbs. It is also important that the use of the verbs a child produces is analysed. This is crucial for the acquisition of modal auxiliaries because they are pluri-functional which means that they can cover a wide range of meanings (e.g. possibility, necessity, permission, obligation, ability and volition). A child has acquired a modal auxiliary only then when it is able to use it with all its functions.

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5 In other data the first meaningful use of perfect does not until 4;6 (four years and six months) and in one case it was never once used until 5;6. Other studies found that the use of perfect not stabilised for six year olds. Fletcher (1979:277)
An example for this problem is Daniel’s use of the modal *can* (this is the most frequently used one) in table 2.

### Table 2

<table>
<thead>
<tr>
<th>Previous utterance</th>
<th>Daniel</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Can Daddy go and get his tea?</td>
<td><em>You can</em></td>
<td>Wants to be lifted up to see birthday cake, which is on a shelf</td>
</tr>
<tr>
<td>b) Can I see that?</td>
<td><em>Can I blow the candles out, can I?</em></td>
<td>Still birthday cake</td>
</tr>
<tr>
<td>c) Shall I take that?</td>
<td><em>You can</em></td>
<td>Father asking for a marble</td>
</tr>
<tr>
<td>d) Can you do that, daddy?</td>
<td><em>I can</em></td>
<td>Father asking if he can wind up a tortoise which the child has taken winder. Child takes toy back saying this</td>
</tr>
<tr>
<td>e) I can come in your bed</td>
<td><em>On his way to bed he goes in parents’ room an clammers in their bed</em></td>
<td></td>
</tr>
</tbody>
</table>

For adults *can* has a variety of uses. Daniel only uses *can* in the following functions: Permission (either granting or requesting) in a) to d), ability in e) and f), and possibility in g). It occurs with first or second person pronouns: he is either using the modal for himself to indicate willingness, inability or request for permission or to allow or prohibit action by his addressee.

The full complexity of the adult grammar has no basis and the form is only performative for Daniel. It is related to an action which is possible within the social limits which he perceives. Modals at this stage are always interpersonal and action-orientated. So one can see that although Daniel uses the modal *can* quite frequently, he has not yet acquired *can* with all its functions.

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6 Daniel is a child from Brown’s data which is used by Fletcher. It has to be said that Daniel’s use of modals is not typical for his age. He is a ‘fast-developer’.

7 Taken out of Fletcher (1979:280): Daniel’s modals between 2;0 and 2;2. (Table continues on page 8)
III. Example for Problems One and Two: 
The acquisition of perception verb complements

In this third part I will introduce and discuss a study on the acquisition of perception verbs by Helen Goodluck and Thomas Roeper with the purpose to show what difficulties (with respect to II. A and B) the researchers have to deal with, how a linguistic hypothesis is formed and how experiments are designed.

A. Adult grammar of participial phrases

A first step in order to find out where the potential difficulties for children are, is to analyse adult grammar. Sentences 2) and 3) are examples for participial phrases but with one crucial difference:

2) John saw Bill sitting on the bench → ambiguous
3) John hit Bill sitting on the bench → not ambiguous

The verb in sentence 2) is a perception verb (like e.g. watch, look at, hear). One would refer to the reading where John (the subject of the main verb) is the subject of sitting as subject controlled reading and to the reading in which Bill (the object of the main verb) is the subject of sitting as the object controlled reading. Sentence 2) is therefore ambiguous. In adult grammar the object controlled reading is preferred.

The tree structures of sentence 2) in table 3 illustrate this ambiguity in detail. (see next page)
The verb in sentence 3) is a non-perception verb (like e.g. kick, kiss). The reading where Bill is the subject of sitting is not possible for native speakers. The subject of sitting must be John. So non-perception verbs like hit do not permit object control.

The question is now how children acquire participial phrases. How do they learn to distinguish between subject and object control with perception and non-perception verbs?

B. Hypothesis

Goodluck and Roeper (1978:89) made some predictions concerning these questions based on the work of other researchers, Chomsky and Tavakolian.

\[\text{Table 3}^{8}\]

\[\begin{array}{cccc}
S \\
NP & VP & VP \\
N & V & NP & V & PP \\
\end{array}\]

\[\text{John saw N sitting on the bench : subject control}
\\\n\text{Bill}
\]

\[\begin{array}{cccc}
S \\
NP & VP \\
N & V & NP & VP \\
\end{array}\]

\[\text{John saw N V PP}
\\\n\text{Bill sitting on the bench : object control}
\]

\[\text{Taken out of Goodluck and Roeper (1978:88)}\]
At a very early stage of development (age three to four) Tavalokian found out that children would over-generalise subject control in relative clauses:

4) John kicked the man that \( \diamond \) hit Bill

In this example John is chosen as the subject of hit by the children in Tavakolian’s experiments.

On the basis of these results Goodluck and Roeper predicted that very young children would interpret the subject of a participial phrase in sentences like 2) and 3) as co-referential with the subject of the main verb.

Then, in a later stage of development the child needs to acquire object control. The child therefore has to do two things: Firstly, the child must add a participial VP option to his phrase structure rule of VP and second, the child must subcategorise the correct verbs (verbs of perception) for this option.

For this later stage of development Goodluck and Roeper based their predictions on the study of Carol Chomsky on the acquisition of infinitival complements. She found out that the missing subject in the complement of promise in sentences like 5) is incorrectly interpreted by five year olds as co-referential with the matrix object:

5) John promised Bill \( \diamond \) to go.

In sentences like 6) the children correctly interpreted the missing subject in the complement of tell as co-referential with the matrix object:

6) John told Bill \( \diamond \) to go.

\( \diamond \) indicates the empty subject position
Therefore object control of the infinitival complement of *promise* like in 5) can be seen as over-generalisation from the interpretation of complement subjects of verbs like *tell* like in 6).

Chomsky proposed that at this stage the children interpret the missing subject by the use of the Minimal Distance Principle (henceforth MDP), which means that “the missing subject of a complement verb is interpreted as co-referential with the nearest NP to its left.” (1979:91)

The MDP could also be the basis of the acquisition of perception verb complements. Goodluck and Roeper supposed a co-relation between age and grammar. This means that after a period of over-generalising subject control in an early stage of development children discover the possibility of object control and incorrectly subcategorise all verbs for this option. And that would mean that the children are insensitive to any semantic restrictions because they do not differentiate between perception and non-perception verbs. Only at a later stage do children discover that there are exceptions to this rule and delete the wrong sub-categorisations.

This sounds quite plausible when one remembers II. A (the acquisition of past tense takes place in a similar way) where over-generalisation was described as key to an acquisition of a rule system.

**C. Experimental evidence**

After having established their hypothesis on the acquisition of perception verb complements Goodluck and Roeper designed an experiment to test it. They asked children to act out sentences like 7) and 8) with dolls and props.

7) **Bozo saw** her carrying the basket.
8) **Bozo kissed** her wearing the watch.
Subject or object control was determined by which doll was made to wear the watch/carry the basket. The verbs that were tested were *watch*, *see*, *kick* and *kiss*. Thirty-two subjects between the ages of 3;4 and 6;7 were tested.

**D. Results and conclusion**

Five of the thirty-two children used an subject-orientated grammar in the tested sentences. The largest group of sixteen children used an object orientated grammar. Another five used a mixed grammar where no preference for either object or subject control could be found. Five others had acquired adult grammar.

At first it appears that Goodluck and Roeper’s hypothesis is correct. But with a closer look on the age of the tested children a crucial point becomes clear: There is no co-relation between age and subject or object controlled grammar. But exactly that was what Goodluck and Roeper had claimed. The only co-relation that could be found was that the adult grammar of participial phrases does not appear before the age of five. Children with subject and object orientated grammars are found across the complete range of the tested children.

The initial hypothesis was not supported by the results. Although it was found out that most of the subjects who had not yet mastered the adult grammar of participial phrases showed an overall preference for either subject or object control, it was not found that children who favour subject controlled reading were younger than the ones who favour object controlled reading. But it could simply be that the data is not extensive enough to tap this ordering of stages by the measure of average age.

A more reasonable explanation can be given if one bears in mind what has been discussed and said in II. A about the difficulties to say when children have acquired something new and what on the danger of using age to
measure the different steps of development. Age is not always a good diagnostic of grammatical ability because there may be slow or fast development.

But the largest group of children was the one with object orientated grammar. The hypothesis is supported with respect to the data of these children because all subjects showed over-generalisation of object control in sentences with non-perception verbs. So it can be said that children go through all the described stages of development to achieve adult grammar, but it cannot be said at what stage a child is at the moment just according to his or her age.

What could have been done in the first place to get the wished results for this study? It is always easy to look at a number of children at one point of time and examine their knowledge of grammar. But to tap the different stages of a development this is maybe not the best way. I think it would have been better in this case just to look at a few children but for a longer period of time. Then the results would have been clearer and one could have seen that each child goes through the same development but each at his own time.

Of course, this would have taken much longer than the original experiment, and maybe it is also money that plays a role or it is hard to find volunteers for these kind of studies, but it would have let to clearer results.

IV. Overall Conclusion

In this paper I tried to form an overview on the problems that occur and give some examples. Of course, this could just be a short touch on this topic. The acquisition of the English verb is a wide field and there are many researchers with different opinions. It has been compared to a “gigantic jigsaw puzzle” (De Villier and de Villier 1985:124) that has to be solved.
I think the most important point, that researchers have to keep in mind, is that all children are individuals. The danger is to design constricting experiments to support a hypothesis in a way that will not take the child’s real competence into consideration.

Ruth Clarke draws a good comparison in her study that I would like to adopt as my closing remark:

In experiments being made with cats in cages on trial-and-error learning the cats did not behave in the cages like they would have in their normal environment and therefore acted in a way that fulfilled the researcher’s expectations. The experiments could have been seen as studies on cages with cats in them. In “[...] language acquisition research, we [the researchers, H.H.] are in danger of studying cages with children in them, the cages being constructed of simplistic assumptions and inadequate research techniques. If you study children inside cages, you do not learn much about children.” (Clarke 1982:1)
V. Literature Cited


