

**Early metaphorical abilities**  
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SCIENTIFIC REPORT FOR THE SECOND VISIT:  
Nausicaa Pouscoulous went to Leipzig, 15-30 April 2010.

Description of the proposed project

Metaphor development has been investigated extensively in the 1970s and 1980s. Most of these experimental studies suggest that children do not understand metaphors until fairly late in development, and often not until quite late into adolescence (see Gibbs, 1994; Nippold, 1988/1998 and Winner, 1988/1997 for reviews).

Yet, these results might be better explained by various confounding factors, rather than reflecting children's poor pragmatic abilities. Recent work in other areas of children's communicative development, such as their capacity to produce and comprehend certain implicatures, has shown that some experimental tasks place demands on children which interfere with accurate assessment of their pragmatic abilities.

We believe there is no *a priori* reason to think young communicators (aged 2;6 – 5;0) do not master the cognitive processes enabling the understanding of metaphors extremely early on. Therefore, the aim of our study will be to investigate the cognitive capacities of children with regard to the understanding and, to a lesser extent, the production of metaphors. How do very young children fare with fully novel metaphors corresponding to their world knowledge and linguistic competences? How early can they be encouraged to spontaneously produce metaphors?

The focus of the comprehension part of the experiment will be on the ability of very young children (from 2;6-year-olds) to understand the metaphorical process (not explain it or report it).

While our main goal is to assess the comprehension abilities of children, we will also include an elicited production task to investigate whether the same children spontaneously produce novel metaphorical labels.

Aim of the first visit

During this visit, a new version of the procedure was to be established and tested. By the end of the visit of autumn 2009 we realised that changes to the material and design of the comprehension study are crucial for the success and soundness of the study. Some toys were inadequate for the study (either the children don't like them, or they correspond badly to the metaphor we use them for); also, for some metaphors that were comprehended by the children we spotted potential confounding factors (e.g. words which may guide the child's response on other grounds than metaphor comprehension alone). These issues are to be addressed and a new version of the design to be piloted with 3-year-olds.

Furthermore, the visit aimed at establishing the exact procedure for the elicited production task (to be run at the same time as the comprehension part of the study).

Description of the work carried out during the visit

The exact materials and design were established for the experiment. These were piloted on 22 young children (2;10 to 3;6). The metaphors, the toys and the procedure used in the

study were modified when needed. After making various adjustments on crucial elements of the experiment, the study is now ready to run.

#### Description of the main results obtained

There are now three elements in the study:

- a metaphor comprehension task including 3 familiarisation trials and 7 test trials;
- a literal control condition including the same 3 familiarisation trials and 7 similar test trials, but where either the target or non-target objects are referred to with literal expressions;
- a picture book vocabulary comprehension and production task to ensure that the children know and use the literal meanings of the expressions used in the metaphor comprehension task.

The metaphor comprehension task will be tested on one group of children, while another (smaller) group will serve as control and be presented the literal control condition. All children will see the picture book vocabulary test.

Another outcome of the piloting phase is that we will test children from 3;0 and above. It is quite clear that younger children tend to fail the comprehension and production vocabulary test aimed at seeing whether they were familiar with the literal meaning of the expressions we used metaphorically in the experiment. If children do not reliably know the meaning of these words, then we cannot test their metaphor comprehension abilities with these expressions. Since all the words we used are very simple and amongst the first to be acquired by children it seems unlikely we could test children younger than 3;0. This is an important result, since we initially planned to adapt the procedure to test children as young as 2;6.

Part of the initial project was to run a metaphor elicited production task. Unfortunately, after extended piloting it seems that this part of the study doesn't work as well as expected. Specifically, it is difficult to find suitable linguistic material that doesn't baffle the children. For this reason we decided not to include this task as part of the study. This could potentially form another independent project to be carried through at a later stage.

#### Future collaboration with host institution

A third visit to Leipzig of Nausicaa Pouscoulous is planned for spring 2011. This last visit will enable to analyse the results of the study and decide how the findings can best be reported in a journal article. We hope that new common projects on the topic of metaphor in young children will emerge from the last phase of this collaboration.

#### Projected publications/articles resulting or to result from your grant

We, of course, very much hope to produce at least one article with the findings from this study. Yet, before we can start writing it, the study must be run and the results analysed.

#### Other comments

The third trip for this project was planned to take place during summer 2010. This had to be postponed because Nausicaa Pouscoulous will be on maternity leave for a few months starting early July 2010.