

The social construction of intersubjectivity between adult and child in
school situations

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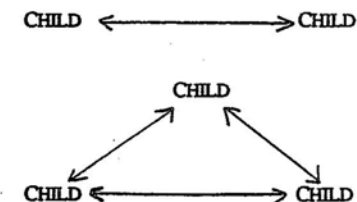
I. Introduction

A large number of studies have investigated the construction of competencies within social interactions. Pursuing this line of research we varied the experimental settings (from the laboratory to "natural" classroom conditions) and the type of notion studied (from Piagetian concrete operations to classroom subject matters such as elementary arithmetics). These shifts away from what had become the "classical paradigm" for research on the impact of social interactions on cognitive development lead us to reconsider at least three aspects of our former theoretical conceptualizations of these processes :

- 1) Are peer interactions...purely "peer interactions" or does the adult play a more important role than we had been aware of ?
- 2) To what extent does the institutional setting (school, laboratory, etc...) mark the display of competencies ?
- 3) What is the content of development ? Piagetian descriptions in logical terms seem too restrictive to account for the socio-cognitive competencies that are constructed in such situations.

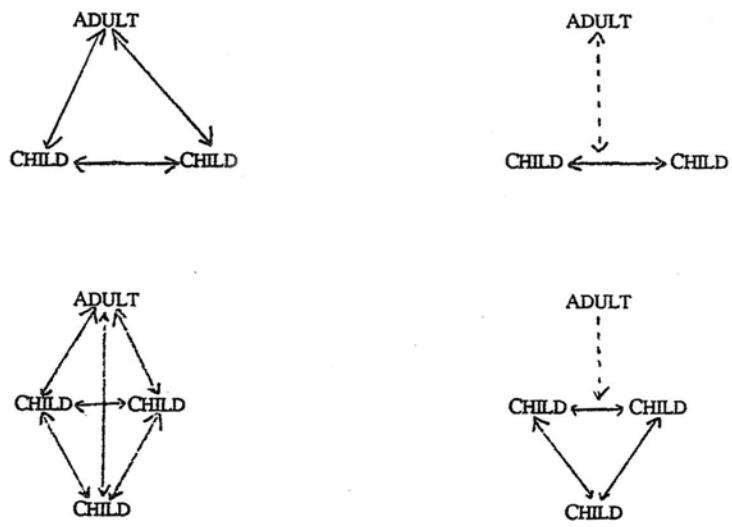
II. Are peer interactions ... purely "peer interactions"?

We used to consider peer interactions as interactive systems that could be represented as such:



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But in fact, in most research paradigms, an adult is present; he is at the origin of this peer-peer encounter; or has organized the setting. Usually he has given the instructions or set up the task or has imposed social norms on the interactions. This invites us to represent "peer interactions" with schemata such as these.:



in which the dotted lines suggest that, in these experimental and/or school settings, the adult can be more or less present (with different possible roles and scripts) but that he is never absent from a more or less active observational and/or teaching or "staging" role- all these being, as we will see, interactive strategies to some extent.

III. How does the institutional setting mark the display of competencies?

In the following table we distinguish- but also draw parallels- between social interactions in a testing setting on one hand and in a school context on the other. In both cases we can consider adult-child interactions or interactions between children with an adult who is more or less present:

TESTING	SCHOOL
Experimenteur ↑↓ Subject	Teacher ↑↓ Pupil
Experimenteur ↑↓ Subject 1 & Subject 2	Teacher ↑↓ Pupil 1 ←→ Pupil 2

What are, in testing and in school situations :

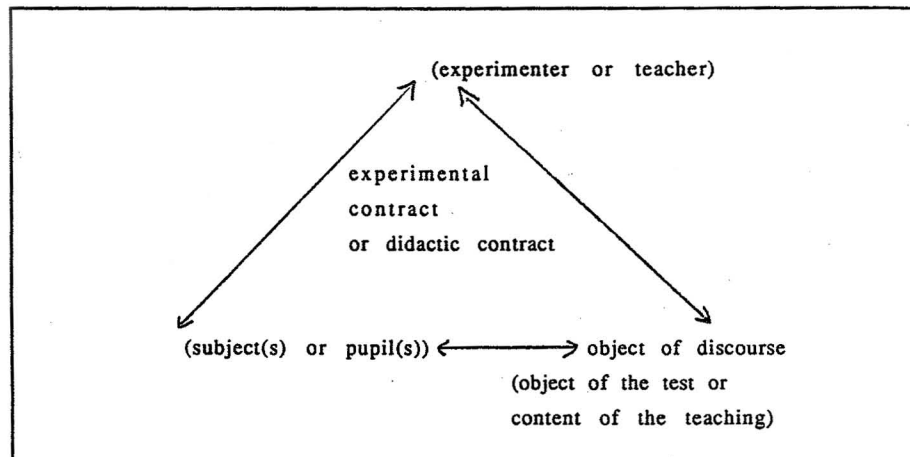
- the respective adult-child or child-child role distributions ?
- the supposed status of the interactants?
- the implicit "communication contracts" ?
- the scripts ?
- the tasks ?
- the object(s) of discourse ?

We can observe that even in these rather formal settings in which roles and tasks are usually relatively well formally described, the interlocutors do not always easily manage to understand each other and the matters at stake. We can trace the "growth of misunderstandings" as well as the elaboration of gradual "intersubjectivity"! How do these processes come about? Do partners negotiate, at least to some extent, their roles, status and objects of discourse? Do the competencies that are displayed correspond to purely cognitive processes or are they also the fruits of social skills ?

IV. What develops in the course of these social interactions?

Up to now our schemata have been "binary" : with an adult (with high status because he is an adult and an experimenter or teacher) and a child (in a low status as a subject or pupil). But the study of social interactions concerning school subject

matters has made us aware that these situations are in fact "tertiary" : an adult, a child and an object (school subject matters, Piagetian notions, technical or cultural knowledge, events, etc.). When the adult communicates with the child, the adult always has some expectations about what will be talked about. This object of discourse is related to the adult's former experience and training. The teacher draws references from the curriculum, his own studies, the previous classroom interactions, the images he has of the pupil's knowledge, etc. The experimenter relies upon his training as a psychologist, upon what he believes is developing in the children's minds, the testing scripts that he has learned, etc.. The adult asks questions and the role distribution and implicit "communication contracts" are such that usually the child feels he has to answer (and of course believes that the question is legitimate and does have an answer!).



The testing or school situation

This "object of discourse" in some sense preexists : it represents (for instance via the testing traditions or via the school textbooks) the discourse elaborated by other persons in other situations. This "object" of discourse might have been displayed already to the child (for instance in school situations) or instead be presented as something to be discovered by the child himself (as the notion of conservation during the various pourings of juice in the traditional Piagetian test). In the first case, the pupil is trained to deal with the questioning according to specific scripts. In the latter testing situation, the child (contrary to the psychologist) is not

informed of the script and we observe that as a consequence he usually tends to transfer the classical classroom script to the testing setting .

V. Our hypothesis about the processes involved

Our present understanding of these social interactions about cognitive matters leads us to expect to observe :

- that the child and the adult will actively try to converge in order to have the same object of discourse
- that both interlocutors will be active in this mutual adjustment but that in testing and in school situations the adult will take the lead most of the time. He will regularly confirm or disconfirm the child's performance and role-taking.

Hence we can imagine that, even if the task is the same, if the adult is a Piagetian tester ... the child will come to give Piagetian responses... if the adult is a teacher in a math class...the child will display his capacity to use "school math"... if the adult is a psychologist doing testing (but asking the same questions as the math teacher)... the child will display varied cognitive skills !

This raises epistemological questions too : is the child making efforts to imitate the role, manners and objects of discourse of the adult in order to gain status (and power or identity, etc); or is he acquiring knowledge per se ?

VI. Empirical data

1. A first line of research explores the role of specific objects of discourse and of specific social contexts of "audience" :

- in one study the adult interviews the child on the classical conservation of number test but experimental conditions vary according to the way in which she introduces herself :

- a) as a "teacher" who wants to assess what children know , or

b) as "a lady who enjoys playing with children" and wants to play with them.

- in a second study children are tested on a task requiring to formulate an additive problem. This time the context of the the context of the interaction is varied :

a) the testing is done by the experimenter in the classroom and each child writes his answer individually

b) the testing is done by the experimenter in a face to face interaction out of the classroom with exactly the same instructions.

2. A second line of research explores the interplay between the mutual definitions of roles and status and the gradual elaboration of a common object of discourse. The paradigm is based on the observation of children role-playing the adult's (teaching or testing) role with peers :

- M. Grossen has studied role-playing of Piagetian tests (see Grossen 1988, and her own contribution to the present congress)

- M.L. Schubauer-Leoni (1986) has observed pupils taking on the role of the teacher.

The child who is invited to role play the adult with a classmate strives to establish his newly (and fragile) acquired status. In doing so, he displays his understanding of what makes a high status "high", of what are the scripts and their purposes, of what is at stake in these situations.

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