

SOCIAL INTERACTIONS AND TRANSMISSION OF KNOWLEDGE

Introduction

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The aim of this symposium¹⁾ is to draw attention to an important process in cognitive development and in social life i.e.: *the transmission of knowledge*, and to better understand how this process occurs in individuals and in small groups and how it can be helped through school teaching.

There is no need here to recall the importance for a given society or culture to transmit to its children the knowledge that organizes its technical, economical, philosophical and social practices. Nor is it necessary to recall the growing consciousness, in recent years, of the importance of the individual's autonomous intellectual growth. Yet these two aspects are only seldom being considered together:

- 1) - either because the focus of the researcher's attention is on the individual's mind (stages of development, functioning, structures and other characteristics). The mind is then considered in itself, out of context, as if the mind could develop without confronting itself with other minds productions (discourses, sollicitations, writings, judgments, etc...).
- 2) - or because all the attention is placed on the teachers activities (discourses, pedagogical objectives and strategies, etc.) as if, given children with the necessary capacities and motivations, the teacher's knowledge could be deposited as such in the pupils' minds and appropriated by the learners independently of their other ongoing activities and needs.

The contributors to this symposium show how interesting it is to overcome the temptation of these oversimplifications and to unravel the very precise and sometime minute mechanisms that allow for the double process of *transmission* and *appropriation* of knowledge. In the light of some of the results presented here it will appear that,

1) Some of the contributions presented here were first discussed in a symposium on "Social Interactions and Knowledge Transmission" held in Rome, Italy, on September 10-13, 1986, during the II European Conference on Developmental Psychology of the International Society for the Study of Behavioural Development.

far from being only an intellectual (and a priori rational) affair, the giving and seeking of knowledge is also a sort of psychological fight for mutual understanding, identity, mastery and interpersonal prestige or power. And yet, this fight (or "sport" or challenge or work) seems to have to obey certain rules if not the matter at stake is no more knowledge and cognitive growth but dilutes into banal quarrels and misunderstandings. If this occurs then what is "learned" is no more the knowledge that was supposed to be transmitted but distorted understandings, stereotyped mental and social strategies, memorizations void of meaning etc.

The rules that gear the proper transmission of knowledge in a social interaction are complex and usually we are not conscious of them. Often, even, our philosophical and pedagogical preferences somehow prevent us from seeing their display in the teaching/learning interactions that we observe. This is why the research that will be presented here inovate with new theoretical and methodological approaches to try to apprehend this reality.

The transmission of knowledge occurs in a context that can be considered as containing different levels of reality (like the traditional Russian dolls that fit one into the other):

1) Psychological level

On the psychological level one can observe how the teacher's understanding of the content of the lesson influences his/her discourse. But the teacher's apprehension of the pupils' behaviours and attitudes also influences the way in which he/she will transmit his/her knowledge.

On the psychological level as well, cognitive psychology has illustrated the ways in which children's understanding develop and becomes sensitive to different types of adult contributions. Cesar Coll addresses this question for curriculum design and teacher training.

2) Psycho-social level

But this psychological functioning of the individual teachers or student is not independent of the social relationships in which it is embedded. The students intellectual attitudes are modified by the teachers interventions. This is illustrated by Nancy Bell and Michèle Grossen's observations of adult-child communication in a testing situation.

Likewise teachers representations of the learners possibilities are modified if they learn to observe the intellectual and social strategies at work during the teaching/learning sequences.

On this psychological level one can observe the multidimensionality of the *teacher-pupil relationship*: intellectual discourse but also socioemotional processes gear the exchange of ideas and judgements. The discourse is concerned with knowledge but also with social roles and self assertion. Maria-Luisa Schubauer-Leoni presents empirical illustrations of implicit assumptions and struggles in the teacher-pupil relationship.

Also on this psychological level, observations of *peer-peer interactions* in the classroom point to the similar multidimensionality of inter-pupils relationships. Likewise they have a role in the teaching-learning process.

Cristina Zucchermaglio presents detailed observations of such processes in early literacy development and report how teacher's behaviours can bring support to their occurrence for better learning.

Margherita Orsolini and Clotilde Pontecorvo also address this question and illustrate the various forms and functions of cognitive interaction in small working groups in a classroom. Their observations suggest that thinking is rendered possible (or encouraged) through specific types of interventions by the teacher. One learns to reflect.

3) Social and cultural level

This brings to us a further level of reality: the wider institutional and cultural context in which the social relationships just described take place. The school is a prestructured social and cognitive environment. Cesar Coll addresses the question of curricula and reflects upon the conditions that have to be fulfilled for the true meaning to be conveyed. Maria Luisa Schubauer-Leoni shows the impact of the predefined social roles on the interchange of information. Clotilde Pontecorvo and her colleagues illustrate how social and cognitive roles emerge in learning groups.

The knowledge transmitted is also prestructured. This is already obvious in the study of literacy. But this "prestructured nature of knowledge" becomes a physical reality when considering technical tools. Jacques Perriault's contribution considers the problems of transmitting technical knowledge. The transmission of a particular body of technical knowledge, for instance computer science, can be concordant, and perhaps more often discordant, with the practices and values of the institutional and cultural context in which it is transmitted. The observation of the interaction between the transmission and the setting can open the way to new adaptations of the social relationships as well as of the technical tool. Perhaps a computer is not as "prestructured" as it might seem in first instance...

Knowledge transmission is a very complex process. We hope that the present symposium will help moving ahead in its understanding, and stir new research developments. This area is of vital importance in a world in which social relationships, knowledge, and technical practices are growing in complexity and interdependence.