

Communicative interaction deaf child / deaf child – deaf child / hearing child: interaction modality

MERITXELL TORRES
M^a ÁNGELES ORTEGA
CARMEN TRIADÓ

This study is based on the investigation of «The evolution of communication of deaf children within the context of the family and school», directed by Dr. Carmen Triadó and subsidised by the D.I.G.I.C.Y.T.

The authors of this study belong to the investigation group EIDA (Investigation team of audition deficiencies) integrated into Evolution Psychology and Education Department of The University of Barcelona.

We have tried to describe what kind of interaction is produced between subjects of the same age, with an audition handicap and how the consequences of this type of interaction is related to their styles of communication. We have thoroughly analysed how the deaf child interacts and the modality of this interaction which is extremely important for the communication of the deaf child, especially if you take into account that deafness does not involve a communicative handicap in itself, but that the handicap is placed in the vehicle of communication..

As happens between adult and child or baby, the adult tends to adapt his behaviour to the minor, trying to interpret what the child wants to communicate and therefore adapting both parts and sharing significances thanks to the elaboration of the interpretations (Kaye, K. 1982). It is possible to think that a similar process happens between an equal couple when there is an asymmetric relationship between the participants (in this case, a hearing child and a deaf child).

The difficulty (in the case of interactions between deaf child – hearing adult or hearing child) is that the interaction of both a deaf child or a hearing adult or a child, present difficulties when having to realise which role each one of the interlocutors has to take. Studies already done on this subject talk about the existence of differences in the interactive styles, differences that can be explained by the characteristics of the participants of the interaction: adult – child, equal or different, being that one of them is more of an expert. (Kaye, K. 1986; Vila, I. 1990; Bruner, 1986; Shatz and Gelman, 1983; Camaioni, I. 1976; Rogoff, b. 1993).

Edwards & Mercer (1988) state that by means of speech and united action, two or more people can build up an entity of common knowledge that becomes the contextual base for subsequent communication. The open messages are a small part of the total of the communication, that is why the context is also an important element in the interaction. Context has been defined by these authors as a mental phenomena. To make references about things or to share their meaning, transforms the interlocutors reality into a social and conceptual reality more than in just a simple physical existence in the surrounding environment. The context is the common knowledge of the speakers which is invoked by the speech.

The interactions between equal children along the pre-school years have certain characteristics that make them different: children before school spend a lot of time developing solitary activities or parallel games. Co-operating activities and social games are becoming more frequent events (Moreno y Cubero 1990).

We have also considered it especially important to study how our deaf subject has access to the interaction. This access changes into strategies to achieve communication. In this way Messenheimer-Young (1994) confirm that the non verbal strategies remain within the access to the interaction.

As per Marchesi (1990) the relationships the child establishes with his/her companions does not only depend on the linguistic level but also on the codes that he/she will use in the communication.. It seems that the deaf child has not got enough social capacity to start the interactions, to control their development and to satisfy the necessities of the interlocutors. This does not happen when the child is capable of articulating himself in another language and even less when the rest of his equals also use it, especially for deaf children, because it has been proved that the relationships and the frequency of communication are similar to those of hearing children.

We can also assure that the orientation of the intention gives us an indication of which person of the couple directs the action. So the less expert (Beekman, 1970; Krebs, 1973) tends to watch notably more than the dominant or more expert child, who tends to be the spectator. Also movements (approximations and distances) are more frequent in the less expert child than in the more expert, although quick glances, which stabilise the control function of behaviour and of the other subject's activity, is a characteristic of the most expert person and his interest is based in confirming and maintaining his role.

Grice (1975), Gordon, Lakoff (1971) and Searle (1969) consider that we can confirm that the interlocutors adjust themselves mutually:

- If it is found that the speaker is selecting a content (or gesture) that the hearer is able to understand and/or which he can respond to.
- If manners, status, flexibility and everything significant for the interlocutor in a specific situation is respected.

Therefore we consider that any communicative action is intimately related to the interactive process and to the context in which this interaction occurs. Interactions are especially important in the pre-school years because this is the period that somehow sets up the beginning of the subsequent social development aswell as the cognitive and communicative development.

We assume then that the deaf child presents peculiarities within the interaction process basically set up by the audition handicap that he/she presents. Difficulties when sharing significances will be related to the context structure and to the mechanisms used to regulate the interaction.

METHOD

Objectives

The following is a longitudinal study with the following objectives:

- To analyse the type of interaction of our deaf child in communicative situations with the hearing child.
- To analyse the type of interaction of our deaf child in communicative situation with the deaf child.
- To analyse the strategies used in both types of couples to establish the access to the interaction.

Subjects and procedure

In our study we analyse a deaf child with prelocutive deafness between the ages of 2 and 3 years. Our subject received logopedic re-education by means of the verb-tonal method and all his/her surrounding is oral.

The observations were made within a school context using video cameras to record situations of «free activity» and situations of teacher guided activity. The structure of the session, the type of activities and the companions that shared these activities with our subject, conditioned the study and have obliged us to modify the objectives initially established. The class was integrated with a total of approximately 20 children. The condition for the session was that Iñaki (our subject of study) would be in the class. In the free activity sessions children could use all the equipment in the class and the teacher just played with them if children asked her to. In the sessions of guided activity, the teacher explained the activity to the group and the activity was would be video recorded in a small group, with some subjects around the work table. There have been a total of 6 observation sessions, 3 of «free activity» and 3 of guided activity. We consider it of importance to remark that in 3 of these sessions there was another deaf child who originally was not included in our study. The wealth of interactions between Iñaki and the other deaf child suggested the re-formulation of the established objectives in the initial stages of the work. We have to emphasise that it has not been methodically controlled and the study has been based on the description of both types of interaction (with deaf child and with hearing child) but not comparing them more than at a descriptive level.

From the total of the observation sessions the 15 middle ones have been transcribed as per the system of categories drawn up by Triadó and reviewed by Fernández, M.P. in 1993, centering our attention on the modality categories of interaction.

We have also drawn up some categories which refer to the type of access to the interaction, adapting them from the ones by Messenheimer – Young and Krestchermer (1994) and the ones by Triadó, Ruiz and Solé (1988). (See enclosures).

CONCLUSIONS AND RESULTS

We have analysed the interactions between our subject and the deaf child and the interactions with the hearing child separately. In the first case, when analysing the modality of the interaction (see graph) we can confirm that the category appearing more frequently is the IE (taking into account the situations in which these occur). The NR category does not really appear, due to its complexity and the IER category does not appear in this type of interaction (deaf child / deaf child).

In graph 2, which refers to the interaction of our deaf subject with the hearing child, the results are lower in all the categories. It is important to point out that the category of greatest frequency is the IN, in another words, the non-successful one. We also have to emphasise that the NR (no response) is more frequent in this type of interaction (deaf child/hearing child).

We can not compare both graphs because in 3 of the 6 observation sessions there was not another deaf child, therefore, the results in the columns concerning the interaction with deaf, are cut for this reason. (Table 1).

Graph 3, obtained from the penultimate pair of columns of Table 1, shows that 86% of the interactions are initiated by our subject Iñaki. Only 5% of the total of the analysed interactions have been initiated by the hearing subject, which leads us to think that the deaf child carries

the initiative for the interaction. This affirmation is reinforced by the following data: 27% of the interactions are initiated by Oscar, the other deaf subject in the class.

From the described data, we think that there is a greater comprehension in the interactions of our subject Iñaki with another deaf subject, because the majority of these interactions are solved in a satisfactory way. In this field and coincidentally with Vander and George's results (1981), our subject develops a wide number of initiatives of interaction mostly through gestures that are better understood and followed with his deaf companion than with hearing companions; therefore, the interactions in the first case are a lot richer.

Although this has not been an objective of this study, it is important to remark that all the interactions in the studied class are interactions directed by the gesture and in many cases, gestures that are not shared with the deaf children but shared with his deaf companion.

We have not taken into account the interlocutors' experience, that is, we do not consider the deaf child or the hearing child to be experts. Although the differences at the level of oral communication have to be taken into account. It is obvious that the hearing child is orally more competent than the deaf child and in consequence enjoys some privileges in the communication, which the deaf child does not have. The hearing child has a greater perception of what is happening around without having to constantly concentrate. This explains that the observed interactions between our deaf and hearing subjects, have been interactions in which only they both have participated and in which just rarely another subject would interfere (although we were in a school of integration).

Although some of the activities in the class had been previously planned by the teacher, we think it is very important to point out that the richness of the interactions have been greater in «free» or spontaneous situations, as opposed to what Schlesinger considers (1982).

The final point we have to consider important to analyse is how beginning of the interactions are initiated, because the percentage of occasions in which Iñaki initiates the interaction is very high. Once the initial categories of interaction have been proved with the data of our video film, we can consider that these categories are sufficiently exhaustive to measure these beginnings of the interactions. Graph 4 shows a summary of the data referred to at this point. It should be pointed out those more frequent beginnings: M2, M5, M4 and M6.

In conclusion, it is very possible to confirm that the importance of role's functions are the same in the social development and communication of the deaf child. So, the possibility that children have to solve practical tasks with speech as well as with the language of eyes and hands will allow the creation of cognitive tools for development. In the case of the deaf child and in accordance with Vygotsky «the eyes and hands» are going to be fundamental for the social, cognitive and the communicative development.

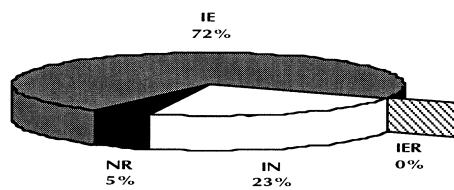
TABLES AND GRAPHICS

TABLE 1. MODALITY OF INTERACTION DEAF CHILD / DEAF CHILD – DEAF CHILD / HEARING CHILD

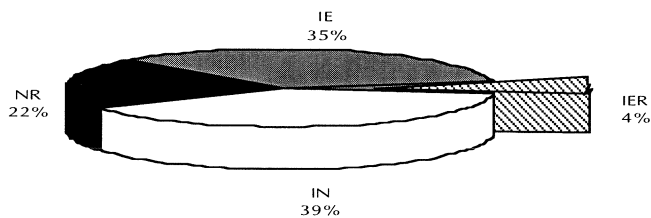
SESSIÓ	IE		IER		IN		NR		INICIO INTERACCIÓN		TOTAL	
	DEAF	HEARING	DEAF	HEARING	DEAF	HEARING	DEAF	HEARING	IÑAKI	OTHER	DEAF	HEARING
1*	-	2	-	0	-	1	-	2	4	1 S1	-	5
2	4	1	0	0	0	1	2	0	7	1 O	6	2
3*	-	3	-	1	-	5	-	2	9	2 S1	-	11
4*	-	2	-	0	-	0	-	1	3	0	-	3
5	10	0	0	0	1	2	0	0	5	8 O	11	2
6	17	0	0	0	9	0	0	0	17	9 O	26	0
TOTAL	31	8	0	1	10	9	2	5	45	3 S1	43	23
										18 O		

*Sesiones en las que el compañero sordo no se encuentra presente.

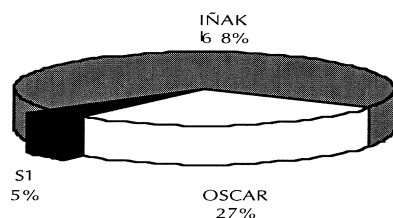
GRAPH 1. MODALITY OF INTERACTION DEAF CHILD / DEAF CHILD



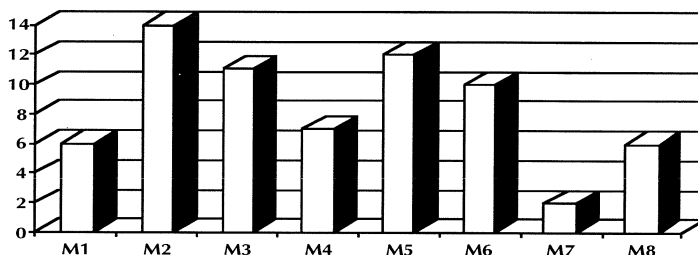
GRAPH 2. MODALITY OF INTERACTION DEAF CHILD / HEARING CHILD



GRAPH 3. PERCENTAGE OF INITIATION OF INTERACTION



GRAPH 4. MODALITY OF INITIATION OF INTERACTION



MODALITY CATEGORIES OF INTERACTION

(Obtained from Triadó, C. and adapted by Fernández, MP, in 1993)

E *Direct Satisfactory Interaction*

The interaction initiated by the interlocutor A gives way to responding behaviour from interlocutor B, according to A's objective who will show his agreement or satisfaction for B's answer.

IER *Retarded Satisfactory Interaction*

After a no answer or previous breaking up of the interaction, one of the interlocutors interferes catching the attention of the other interlocutor and re-establishing the theme that had brought them to the previous breaking up, the no answer or negative interaction, re-starting the previously failed interaction.

IN *Negative interaction*

The one in which the interlocutor A shows movement or demonstrates which objective is to start an interaction with B and B responds differently from what A thought (it could be due to the non comprehension of the demand) or with demonstrations of avoiding the interaction, not establishing a positive interaction. Therefore, the objective of A is not achieved.

NR *No Answer*

The opening of the same interaction by A interlocutor is constituted by an interaction that does not happen.

CATEGORIES OF ACCESS TO INTERACTION

(Adapted from the ones elaborated by MESSENHEIMER – YOUNG and KRESTCHERMER (1994) and the ones elaborated by Triadó, Ruiz and Solé (1988)).

- M1** Similar behaviour to the interlocutor
- M2** Disruptive entrance
- M3** What is needed for the activity to be developed
- M4** Offering of an object
- M5** Use of the conventional social gesture to claim attention from the interlocutor: smiles, physical contact ...
- M6** Invitation to follow an action in the group
- M7** Being affectionate or showing esteem
- M8** Suggesting an activity spontaneously