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ABSTRACT

This examination of Swedish research in the area of communicative interaction is designed to establish a common base for analyzing communication through the use of video recordings. The review describes research from five perspectives: normally developing children, blind children and children with visual impairment, hearing-impaired and deaf children, mentally retarded children, and children with physical handicaps. Definitions of communication are presented from the perspectives of selected researchers in different disciplines such as linguistics, psychology, and education. Communication is perceived as an interaction between the individual and the conditions of the situation; in order to analyze a handicapped person's communication problems and abilities, the individual and his or her surroundings must be examined. (19 references) (JDD)

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**INTERACTION RESEARCH  
IN SWEDEN**

**JANE BRODIN  
EVA BJÖRCK-ÅKESSON**

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**Rapporter inom handikappområdet  
Reports from the Handicap Research Group  
Report No. 7, 1990**

**ABSTRACT**

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**JANE BRODIN  
EVA BJÖRCK-ÅKESSON  
THE VAT- GROUP**

**INTERACTION RESEARCH IN SWEDEN**

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Interaction research has been an area of increased interest in Sweden during the eighties. The Swedish research council has emphasised this kind of research. In its program for handicap research four areas have been given priority, and among them Cognition, Communication and Handicap. The VAT-group has received financial support to make a survey of research in this area in Sweden.

This report is a translation of the report "INTERAKTIONSFORSKNING I SVERIGE", published as report nr. 1 by the VAT-group at the Institute of Linguistics, Phonetic Department, Umeå University. The work of a selected group of Swedish researchers in the area of communicative interaction is presented. It is emphasised that the theoretical background of the researcher directs the definition of communication and the methods used to observe and analyse communication. Research in the area of communicative interaction is described from five perspectives: normally developing children, blind children and children with visual impairment, hearing impaired and deaf children, mentally retarded children and children with physical handicaps.

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**Key words:** Interaction, communication, development, children, visually impairment, hearing impairment, mental retardation, physical disability

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## Foreword

The VAT-group works with methods for analysing and interpreting video recordings of communicative interaction. This group of researchers, which receives financial assistance from FRN (the Swedish research council), has three members: Eva Björck-Åkesson, Department of Education, University of Göteborg, and lecturer at the University College of Jönköping, Jane Brodin, graduate student, Department of Education, Stockholm University, and Iréne Johansson, professor, Department of Phonetics, Umeå University.

The work of the VAT-group has been documented in a sequence of reports in Swedish. This report is a translation of the first report "INTERAKTIONSFORSKNING I SVERIGE" in the serie, originally published by the VAT-group at the Institute of Linguistics, Phonetics Department, Umeå University in March 1990. The translation has been made by Christina McCarthy.

Jönköping September, 1990

The VAT-group

Jane Brodin

Eva Björck-Åkesson

Translation: Christina McCarthy, Aug. 1990

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## BIBLIOGRAPHY

## 1. INTRODUCTION

During the last decade communication and alternative communication of handicapped children and adults have been established as a research field both in Sweden and abroad. This research field is cross-disciplinary and occupies researchers from various backgrounds such as linguistics, psychology, and education. FRN has emphasized this new field. In the report *Research in Disabilities* (1985) four areas of priority in the field of handicap research is shown:

- Social processes and handicaps
- Cognition, Communication and Handicaps
- Visual impairments and visual handicaps
- Neurological handicaps

The work of the VAT-group (Video-Analysis-Interpretation) is connected to the area of Cognition, Communication and Handicaps. The VAT-group has three members: Eva Björck-Åkesson, graduate student, Department of Education, Göteborg University, Jane Brodin, graduate student, Department of Education, Stockholm University, and Iréne Johansson, professor, Department of Phonetics, Umeå University. The members of this group work with video-recordings of communication among physically disabled children, children with profound mental retardation and multiple disabilities and children with Down syndrome. In the Spring of 1988 FRN granted the VAT-group funds towards the study of methods for observing and analysing communication using video recordings.

The use of video recordings to analyse and interpret communication is a relatively new method. This method has many advantages by enabling close and detailed observations which would otherwise not be possible. This enhances the possibilities to study communication between people. The expertise and theoretical background of various researchers direct how the methods for observing and analysing are chosen and the communication concept is defined. The goal of the VAT-group has

been to find a common base when establishing methods of analysing videos and to begin this task we have chosen to analyse the accomplishments of various Swedish researchers in the areas of communication and perspectives of communication.

The VAT-group has met six times during the fiscal year 88/89 and six times during 89/90 in order to discuss video-observations and analysis as a research method. Furthermore, in May 1989 a workshop was arranged at Umeå University to discuss methods for analysing video recordings. Approximately twenty Swedish researchers from various universities were invited to this workshop. Besides the VAT-group, researchers from the education departments at Göteborg and Stockholm universities participated. Each participant had an opportunity to introduce his/her methods upon which a discussion followed. The material from this workshop was co-ordinated by the VAT-group and can be found in report number three.

## 2. THE CONCEPT OF COMMUNICATION

Research in the area of communication takes place today within a number of different disciplines. This is a relatively new field which has branched out, partly from linguistics, and partly from psychology and education. This is a cross-disciplinary field which is why defining the concept of communication becomes imperative. Researchers from various "schools of thought" differ in how they perceive the communication concept and their theoretical base, when defining this concept, directs their choice of research effort. Therefore, as a starting point for our task, we have chosen to explain how researchers in different disciplines define communication. When grouping the definitions of different researchers, we decided to sort them according to the category their research focused on, for instance: visually handicapped and blind children, mentally retarded children etc.

FRN's research programme (1985) is based on a synthesis of efforts in the areas of cognition, communication-psychology and



linguistics. This synthesis is made up of certain common elements when describing and explaining human communication. For communication to take place it is fundamental that the conditions of the situation is agreeable to the individual. A generalized model for communication is presented in the programme below. This model has previously been presented by Hjelmquist and Strömqvist (1983).

In this model communication is perceived as an interaction between the individual and the conditions of the situation. What the "speaker" expresses, and the manner in which it is expressed, is dependant on the nature of the individual as well as background factors. What the "listener" perceives is also considered influenced by a person's individual as well as the environmental conditions. The individual factors are those qualities which determine the way information is processed for example, how much information can be perceived and expressed at the same time. One understands from this model that both the speaker and the listener may produce and perceive expressions of communication on different levels. The intentions of the speaker as well as the listener is a key factor in this model. The degree of awareness of these intentions vary. How completely the message is understood varies depending on characteristics of the receiver and various environmental factors. Problems may arise at the different levels and at each step in the model and these may be regarded as handicaps. In order to analyse the problems of a handicapped person one must describe and explain the ability of the individual person as well as what the situation demands and also describe the partner in this communication. This means that in order to analyse a handicapped person's problems and abilities in connection with communication one must examine the individual person himself as well as his surroundings.

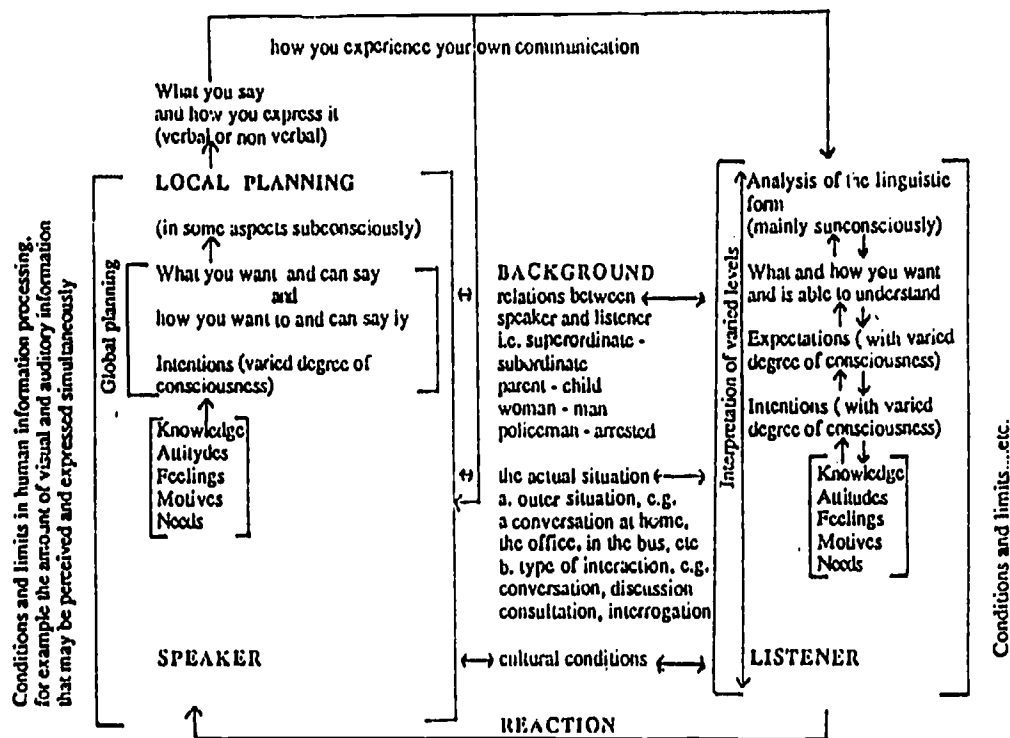


Figure 1. A model of some characteristics of human communication (translation from Hjelmsquist & Strömquist (1983).

The above model is generalized and brings together several important factors and levels which means that other, less general models, are assumed included. Communication is a cross-disciplinary field which means that, although one can find a common base to start out from, each discipline directs its efforts on its own specific area of interest. Not all researchers give a pure definition of communication. Communication is often described as a development which is assumed to occur through interaction with the surroundings. The opinions about communication then becomes to a great extent related to how communication is developed. In this report we give an account of the efforts in and perspectives of communication from the work of a selected group of Swedish researchers.

### Normal Development of Language and Communication

Karin Stensland Junker (1975) is of the opinion that communication is a process in which information is transferred from one person to another. Communication is at the base of the entire system which men, as social creatures, use to get in touch with one another. Look-listen-smile are actions at the foundation

of communication. "The ability of the child to both understand the message and the importance of different signals increases and grows gradually to reach the system we call language, a communication activity with many forms of expression, each one recognizable by the fact that the attention is focused alternately on incoming and outgoing signals." (p.13)

The purpose for communication is to transfer information from one or more persons to one or more persons in a manner previously agreed on. Communication is a continuous selecting process which develops the language. Language development depends on environmental and hereditary factors. The spoken language is dependant on the ability of the brain to receive, process and send impulses through the nervous system, not only in regard to the motor functions of answering signals but obviously also its ability to interpret, adjust and choose. Stensland Junker feels that one must communicate in order to live. Our most important means of reaching people is through the spoken word. The entire thinking mechanism is contained in the system of language. There is hardly any difference between the person that speaks ten languages and the person who speaks only one. The gap is, however, immense between the person who speaks a language and the one who cannot talk at all. A person who does not have any type of verbal contact is alone in his own world, socially excluded.

Stensland Junker stresses the urgency of discovering visual and hearing disabilities early as well as other physical impairments which seriously may interfere with the process of communication. Stensland Junker emphasizes the fact that communication requires selective attention. Vision plays an important role when we get in touch with the world around us, "The eye is the mirror of the soul". The early contact and interaction between child and parents and, above all, that the parents have the opportunity and ability to interpret the child's signals, make up the base from which communication develops.

Ragnhild Söderberg (1979) uses the term "The child's linguistic socializing process" when making her definition of communication. She emphasizes the gradual development of the ability to interact and co-operate through language in different environments. Söderberg agrees with Stensland Junker (1975) that the eye contact is of great importance to communication. She feels that eye contact is the first and necessary condition for communication. The early interaction between mother and child is the foundation for all further development. Communication is a necessary condition and base for the development of language; "a one year old child is thus capable to communicate with language although he is not fully able to use his voice in verbal communication" (p.18). She feels that "the early contact has physical and emotional consequences which enables the mother to be alert, sensitive and receptive to the child's signals, which in turn leads to that the communicative interaction mentioned above, gets started much earlier". A child's language is ambiguous to a much higher degree than an adult's and the interpretation depends, therefore, on the situation.

Per Linell and Lennart Gustavsson (1987) discusses dialogue communication. The basic units analysed are initiative and response and their main interest is focused on the relationship between coherence, dynamics and dominance. The analysis of initiative-response gives, according to these writers, a picture of the interaction at hand (i.e., immediate and relevant connection with the main content of the dialogue) and how the participants handle the interaction step by step. The statements and replies are regarded as moves in a communication game. A communication game is a social activity in which two or more partners influence each other (cognitively, emotionally, and/or conatively). This presupposes that the activity as a whole can be well defined, has a certain direction or purpose and that the actions of the partners are, for the greater part, conscious and intentional. Communication, according to them, is a socially shared knowledge which contains both initiative- and response

characteristics. By using the term communication game or language game they stress the mutual dependency of the partners. The communication contains obligations, rights and expectations. Linell and Gustavsson feel that not even in dialogues between equal and cooperating partners is the "classical" model of interaction true because the partners are not equally active. Many communicative sidegames, sometimes entire interactions, become short lived depending on who dominates the situation. The writers consequently regard communication activities as games where the players make different moves (communication moves) or signals (for instance gestures) which are of varying significance to interaction.

Taking the initiative in a communication game means, not only that you begin an exchange of words, but, also that you deliver a special message in a social situation. You take part in social intercourse and both parties are responsible for keeping the communication going. The person taking the initiative also exerts power. A response might be directly connected to earlier messages or indirectly connected (not tied to the situation at hand or not focused). The response might be connected to the situation or totally irrelevant but might also be completely missing. Linell and Gustavsson emphasize the importance of reconnecting when communicating. The re-connection might consist of backing up, minimal responses or expansion of replies. The writers feel that their model primarily involves verbal communication and cannot be used without modification for people who do not communicate verbally.

Carin Holmlund (1988), who has studied the interaction between the infant and the mother thinks that language depends on a system originating from interactions using all our senses. Early patterns make primary tools of communication enabling higher levels to appear later on. Holmlund feels that communication "appears to be one of the abilities the human being is born with". Holmlund feels, consequently, that we don't have to teach the child to communicate but rather that we ourselves need to regain our own natural ability to communicate.

Communication is a controlled, natural urge to share experiences and participate. Communication is a directed, intentional act and the communicative competence of the child depends on his/her ability to match the feelings, actions and thoughts with his own. The child eventually replaces an action or a gesture with a word. In order for a child to learn to talk certain motor behaviours must be developed. The motor and language development of the child is a consequence of his desire and urge to be able to share experiences.

The ability to imitate plays an important part in communication development both when describing real things and in a creative process where the child shapes the reality. Holmlund is basing her suppositions about imitation on James Baldwin's circle reaction theory, which he developed at the end of the nineteenth century. The way the child repeats his movements at regular intervals is, according to Baldwin, due to the child's instinct to restore pleasant stimuli. This ability appears when the child has gained a bit of control over his movements but has been active from the beginning as a driving force in the communication process.

### Visually Impaired and Blind Children

Karin Junefelt, Lennart Hellspong and Åsa Brumark have co-operated in a project about the communication of blind children. Their theses were published in 1987 (Junefelt), 1988 (Hellspong) and 1989 (Brumark) and their close co-operation is apparent from their opinions on the concept of communication.

We note the following discussion around the definition of communication. As soon as factors outside the actual language itself, such as body position, facial expression and context, are taken into account, it is difficult to define what communication is. For instance, they earlier questioned the communicative

competence of the infant much due to differences in the definitions of communication and interaction. The definition of the concept of communication often includes a situation of interaction as well as purpose and intent. The actual use of purpose and intent makes it very complicated to judge what communication is. This group questions, for instance, which kind of purpose and intent the various definitions include.

According to Junefelt most researchers agree that the mother regards her child's behaviour as intentional and attributes communicative competence to the child. The close "symbiosis-like" relationship between the mother and child makes a "broad" interpretation of the child's signals possible. A broad interpretation means that the mother takes the perspective of the child and explains what she perceives from the child's expressions of feelings, attitudes and intentions. A sensitive mother is the child's messenger, and enables the child to discover intention step by step. The child's ability to fully express his own intentions in the interaction increases gradually. Communication is defined as "all signals which are interpreted by either party to be a kind of message", which is a broad, rich definition. There is room here for both interpretation and over-interpretation. The concept 'mutual adjustment' is the foundation for the activity of communication between mother and child. Psychologists and linguists often have different opinions about the importance of mutual adjustment for the development of communication and language in the child. Linguists don't feel that the importance of this adjustment is to be taken for granted. Junefelt feels that the psychologists are more interested in the overall development of the child while linguists focus their attention on the parts concerning language. She has adopted the view of the psychologists.

The CA-register (child adjusted register) is a vital part of the project group's work. The CA-register consists of the mother's

methods/ability to adjust to the abilities and needs of the child, emotionally, cognitively and communicatively. Junefelt has reduced the CA-register to three functions: affective, communicative and educational. She feels that by describing the three functions one gets a dynamic picture of the mother's communication with her child. The three functions in the CA-register interact in different combinations. Theoretically one could illustrate their respective influence in an interaction situation three-dimensionally.

Junefelt discusses the connection between affect and communication. She takes the following stand which clearly shows her wide interpretation of communication: If the mother perceives and interpretes the affected expressions of the child as communication then they are considered communication regardless of whether they are intentional or not. The feedback the mother gets from the child enables the development of different communicative styles between mother/child teams.

Hellspong (1988) says "During the last decade or two, the study of face-to-face communication, or dialogue, has gained a prominent place in linguistic research". In this case he equals communication with dialogue. Hellspong talks about the mutuality dimensions of conversation, a dialogue with two attributes. The dialogue is often an oratory and involves more than one sense, which means that it is multi-modal. Gestures, voice and words interact. They are integrated with each other in a complete communicative development. According to Hellspong, a dialogue demands "co-attention, co-direction- co-reaction, co-forms, co ordination and co-observance". He thus stresses the mutuality in communication and the adjustment and other factors demanded of the partner.



## Hearing Impaired and Deaf Children

Gunilla Preisler (1983) defines communication in "daily terms" in the context of transferring information and mutually paying attention and feels that the confusion around finding a definition originates in these daily terms. The first one demands activity from one person, while the second demands mutuality. Preisler feels that there are as many definitions as there are studies in communication. Most definitions, however, contain the concepts of intention, meaning, reciprocity and mutuality. Preisler (1983) stresses the fact that communication involves more than sharing and answering a code. It includes expressions of mutuality, reciprocity, inter-subjectivity, intention and meaning. In the social interaction between deaf children the term communication is used in the following way: "when there is considered to be mutuality, reciprocity, intersubjectivity, and also intention and sharing of meanings between children." (p.15).

That both parties synchronize body movements and speech is emphasized. This process of synchronizing does not only include sound and speech but also other rhythms such as the day/night rhythm. Here "In communication" means a biological rhythm in which the behaviour is integrated. Bullowa (1979) says that "to be in communication" is to share rhythm. Preisler (1983) discusses the development of the infant in interaction with the physical and social environment. She emphasizes the infant's own activity and the gradual development of the child's ability to make representations. The ability to use symbols is gradually developed through the child's interaction with his environment. Preisler stresses the fact that the infant learns most everything during the dynamic social process of interaction. A gradually developed dialogue is essential which is based on the mother's interpretation of the infant's activity as if it were intentional.

Preisler describes how early patterns of interaction between mother and child is developed with the emphasis on "intersubjectivity". She mentions different aspects of this development as well as their importance; eye contact, facial expression, hand movements and gestures. She stresses the importance of micro analysis in communication research. Preisler shows how important a socio-linguistic perspective is for language development and also that it is necessary to pay attention to the child's as well as the adult's contributions to the communication.

### Mentally Retarded Children

Gunnar Kylén et al (1983) defines communication as what happens when someone's deliberate or not deliberate actions may be interpreted by other people who then become influenced by these actions. Communication is the process itself in which messages are transferred and received by other people. Interaction between people happens when they mutually influence each other. Interaction takes place as soon as people get together and, analysing this interaction, according to Kylén, involves looking at the processes within the group; who influences who, the power structure etc.

Communication is divided into pre-symbolic communication and symbolic communication. Pre-symbolic communication are the natural reactions, for instance screams of pain, and also signals, such as different sounds and movements. Symbolic communication is composed of symbolic language, for instance the spoken word and sign language.

According to Kylén, communication is always an interaction between two or more people and a social process. The process of communication can be divided into ten steps, the so called communication chain shown below:

1. The Idea. Someone has an idea, originating in emotion or knowledge.
2. The Will. The will to share the idea must be present.
3. Translation. The idea must be translated into language.
4. Making Signs. Signals are indicated by gestures, pointing etc.
5. Medium. Choosing the medium for delivering the message.
6. Perception. Did the receiver perceive the signal.
7. The Will to Receive. The receiver must want to receive the message.
8. Interpretation. Is the receiver able to interpret the message.
9. A Thought. The receiver gets an idea of what the speaker wants to say.
10. Confirmation. The receiver confirms that he understands, i.e. by nodding.

The communication process is dynamic and the different steps affect each other continuously. The wish to communicate depends on the person's motivation structure. A motivation structure consists of :

- \* a condition of need
- \* awareness of the objective of this need
- \* knowledge of how to achieve this objective
- \* expectation to profit from achieving the objective

Kylén uses his communication model to describe communication of the mentally handicapped. Mats Granlund, and later on in co-operation with Cecilia Olsson, has more systematically developed Kylén's theory about communication.

**Mats Granlund and Cecilia Olsson (1987)** study communication from the models of Bloom and Lahey (1978) and Kylén (1983, 1986). Communication can be seen from three perspectives; communicative form, communicative content, and communicative intention. In order to understand and develop a person's ability to communicate certain basic qualities are required.

In the individual:

- \* sensuous experiences
- \* intellect
- \* motor ability
- \* emotions and needs
- \* communication

In the environment:

- \* social environment
- \* physical environment
- \* motivation activity

It is also necessary that the person has a functioning system of symbols and that the correct methods are used when teaching alternative communication. Granlund and Olsson define communication as the transfer of a message from one individual to another. The concept includes everything from the unintentional communication with natural reactions and reflexes to the spoken and written word. All communication requires social interaction and all communication is influenced by the environment in which it takes place. Prerequisites for communication are the acts of delivering a message and responding to it.

**Jane Brodin (1989)** claims that communication is based on mutuality and fellowship and takes place in relationships with other living beings. The ability to communicate is developed through the interaction with the surroundings and involves sharing an event or an experience. The child is prepared for communication from birth but in order to do it requires an interaction partner who encourages, is sensitive and supportive, e.g., a social interaction is necessary. The child learns to communicate by profiting from delivering a message.

In other terms, communication may be described as a situation where two or more subjects together and in co-operation become active with a common objective in mind. They pay attention separately to a common goal. Play is one example of an interaction situation. In play the parties focus their interest on a certain object. Play in itself is not communication but through play communication starts and develops.

The question arises whether communication is the same for newborn infants, normal children with the ability to talk, and children with various kinds and degrees of disabilities. Children with profound mental retardation and multiple handicaps often develop communication disorders because they do not always produce the response the mother expects. The extent of different additional handicaps, for instance physical disability, vision or hearing impairment, are of great significance. The different additional handicaps affect each other in children with multiple handicaps and the effect of each additional handicap combined with profound mental retardation has not yet been studied.

When a child communicates at "the signal stage or with natural reactions" (Kylén, 1983) it is often difficult to judge whether the child is performing an intentional communicative act or merely making involuntary movements. The ability to take spontaneous initiatives on ones own is another important aspect. A seriously handicapped child does not take many initiatives. That the receiver is sensitive and alert must, therefore, be emphasized in connection with children who have severe handicaps.

The interpretation of the child's communication is important. A vivid imagination is often required when interpreting the message in the communication of a profoundly mentally retarded child with multiple handicaps. It is often necessary to over-interpret. There is a risk for making premature interpretations instead of awaiting the child's response and giving the child the chance to

deliver his message. The child learns to become helpless when he discovers that it is futile to try taking the initiative to communicate. The children with serious multiple handicaps have great difficulties judging how to take turns. The receiver often does not notice that the child is trying to take turns which causes the child not to realize that taking his turn is profitable.

Irene Johansson (1988) looks at the concept of communication from the practical therapeutical point of view. Her goal is to find a theoretical base for developing communication training for mentally retarded children. She feels that how well a child is able to communicate both affect and is affected by his/her development in other areas which is why communication skills cannot be evaluated or treated separately, isolated from the individual's other skills.

It is natural for children to be active and creative. Communication is, therefore, developed simultaneously with the ability to do, see and hear. An important co-operation between the child's intellectual abilities and environmental factors takes place here. The importance of a harmonious relationship, established early in life, between the child and the care-giver is especially emphasized.

The child's communicative development is regarded as a continuous, dynamic process which lacks clear cut separations between the developmental stages. Communication skills are prepared for, learned, retained and modified over a long period of time and in such a way that certain skills are the base for the continuation of the development of other skills. During communication development turntaking, intention, awareness, symbols and linguistic rules appear gradually.

## Children with Physical Handicaps

**Eva Björck-Åkesson** (1987, 1988) claims that the communication principles and rules we learn early in life are the base for future learning. There is, however, a difference between studying early communication and communication later in life. In children without handicaps the need to make "broad" interpretations decreases as the child grows and develops. The broad interpretation may be required for a longer period in children with motor disabilities.

Communicative interaction between speaking people and non-speaking people who use alternative communication is different from normal spoken communication; reduced speed, different form, different/limited vocabulary, motor limitations such as, facial expressions, involuntary movements, the aspect of closeness, and other para-linguistic aspects. When analysing communication, it is difficult, therefore, to use the same models as the ones in use when studying normal children. The aspect of time is, above all, important.

Björck-Åkesson describes the interaction between children with physical and communication disabilities and parents in a longitudinal study. She found that the motor problems had an effect on the child's ability to show his/her intentions. If a broad interpretation is always used by persons who usually communicate with the child and they assume intention in all of the child's activities, this might cause the child to "give up" and stop expressing his intentions. In extreme cases, a broad interpretation prevents us from learning anything about the child's own thoughts, intentions, emotions, etc., and only project our own interpretations. In order to analyse communication we must be able to show direction, intention and content in the activity of the child. The analysis of the communication must, therefore, be based on the unique possibilities of each individual child to express direction, intention, and content. Turn taking is an important part of the analysis in the model used for analysing communication.

The communicative competence is a key factor in children with physical and communication handicaps. With normal children, the parents help to teach the child the basic rules of communication. The parent gives the child gradually more and more of the space in the interaction by, for instance, giving the child the parent's turn through questions, over-clarification, and gives the child maximum support in the dialogue. This support changes as the child matures. This support is also needed by children who have problems communicating due to motor disabilities, but a different kind of support is required and, above all, a more structured kind. There is a risk for getting stuck in early interaction patterns because the child does not contribute to the development in the same extent as a child who has no motor disability. Researchers in communication of these children must make an effort to clarify turn taking and dynamics in interaction.

### 3. Conclusion

In this report we have described a number of research efforts in the area of interaction. As shown there are both general and specific aspects of this research. The group studied and the area of expertise decide the theoretical and methodological perspectives. In ensuing reports from the VAT-group, report number two and three, we will show examples of this by co-ordinating presentations from two different workshops, one at Umeå University and one at Hoensbroeck in the Netherlands.



## Bibliography

Björck-Åkesson, Eva (1987) Att ge och ta emot (To give and receive), RPH-RH. Göteborg.

Björck-Åkesson, Eva & Fält, Inga-Britt (1988) PRESS 7 - Kommunikation hos små barn med rörelsehinder och talhandikapp. (Communication of young children with physical and speech disabilities). (Manus), Institutionen för pedagogik, Göteborgs Universitet. (Department of Education, Göteborg University).

Bloom, L & Lahey, M. (1978) Language Development and Language Disorders, John Wiley & Sons, New York.

Brodin, Jane (1989) Ett gravt flerhandikappat barns kommunikation - utprovning av en analysmodell, Rapport nr 34, Utvecklingspsykologiska seminariet, Stockholms universitet. (Communication of a child with profound and multiple handicaps - testing of a model for analysis, report 34, seminar of developmental psychology, Stockholm University).

Brumark, Åsa (1989) Blindness and the Context of Language Acquisition, Institutionen för nordiska språk, MINS 31, Stockholms universitet (Institute of Nordic Languages, Stockholm University).

Bullowa, Margaret (1979) Before Speech, Cambridge University Press, Cambridge.

Granlund, Mats & Olsson, Cecilia (1987) Talspråksalternativ kommunikation (Communication with an alternative to the spoken word). Stiftelsen ALA.

Holmlund, Carin (1988) Barnets väg mot en värld av delade upplevelser, En modell för analys och beskrivning av spädbarnskommunikation 0-3 månader, Forskningsrapport nr 41, Pedagogiska institutionen, Stockholm universitet (The child's road to a world of shared experiences, A model for analysing and describing communication of infants 0-3 months old, Research report 41, Department of Education, Stockholm University).

Hellspong, Lennart (1988) Regulation of Dialogue, A theoretical model of conversation with an empirical application, doktorsavhandling, Institutionen för nordiska språk, Stockholms universitet (PhD thesis, Institute of Nordic Languages, Stockholm University).

Hjelmquist, Erland & Strömquist, Sven (1983) Språkets Psykologi. -Språk och tänkande i socialt samspel (Psychology of Language - Language and thought in social interaction. AWE/Gebers, Stockholm.

Johansson, Iréne (1988) Språkutveckling hos handikappade barn: Performativ kommunikation, Studentlitteratur, Lund (Language development of disabled children: Performative communication, Studentlitteratur, Lund, Sweden).

Junefelt, Karin (1987), Blindness and Child-Adjusted communication, doktorsavhandling (PhD thesis), Institutionen för nordiska språk (Institute of Nordic Languages), Stockholms universitet (Stockholm University).

Kylén, Gunnar et al (1983), Icke-verbal Kommunikation hos begåvningshandikappade, Göteborgs universitet, Fortbildningsavdelningen (Non-verbal communication of the mentally handicapped, Göteborg University, Dept. of continuing education).

Kylén, Gunnar (1986), Helhetsstruktur, helhetsdynamik och helhetsutveckling (Holistic structure, dynamics and development) ALA Foundation, Stockholm

Light, Janice (1985), The communicative interaction patterns of young nonspeaking physically disabled children and their primary caregivers. Blissymbolics Communication Institute, Toronto

Linell, Per & Gustavsson, Lennart (1987), Initiative och respons, Om dialogens dynamik, dominans och koherens, Tema Kommunikation, Universitetet in Linköping (Initiative and response, About the dynamics, dominance and coherence of dialogue, The Subject of Communication, Linköping University).

Preisler, Gunilla (1983) Deaf Children In Communication, Psykologiska institutionen (Institute of Psychology), Stockholms universitet (Stockholm University).

Stensland Junker, Karin (1975) Den lilla människan (The little person), Natur och Kultur (Nature and Culture), Stockholm.

Söderberg, Ragnhild (1979) Barns tidiga språkutveckling (Children's early language development), Liber Läromedel (Liber Teachingaids) Lund, Sweden.

- 
1. Gunvor Flodhammar: Läsning med Bok + Band, Lässvaga elever i särskolan, 1989
  2. Jane Brodin & Kristina Millde: Tre förskolebarn med benskörhet - föräldraintervjuer, 1989.
  3. Eva Björck-Åkesson & Jane Brodin: Sensoriska handikapp och flerhandikapp - rapport från en internationell konferens, 1989.
  4. Jane Brodin: Children with osteogenesis imperfecta and their daily living, 1990.
  5. Jane Brodin & Kristina Millde: Three preschool children with osteogenesis imperfecta - interviews with parents, 1990.
  6. Kristina Millde: Ungdomar med benskörhet, 1990.
  7. Jane Brodin & Eva Björck-Åkesson: Interaction research in Sweden, 1990.