



COMMUNICATION NETWORK UPDATE SERIES

Number 3

DbI's Network on Communication and Congenitally Deafblind Persons

Marlene Daelman, KMPI Spermalie, Brugge, Belgium

Marleen Janssen, University of Groningen, The Netherlands

Flemming Ask Larsen, Skådalen Resource Center, Oslo, Norway

Anne Nafstad, Skådalen Resource Center, Oslo, Norway

Inger Rødbroe, The Resource Center of Congenital Deafblindness, Aalborg, Denmark

Jacques Souriau, CRESAM, Poitiers, France

Ton Visser, Viataal, Sint-Michielsgestel, The Netherlands

Sensation, perception and formation of meaning – what
does it mean when people are congenitally deafblind ?

NUD Conference

Gothenburg
28 August – 1 September 2002

**Sensation, perception and formation of
meaning –**

**what does it mean when people are
congenitally deafblind ?**

Keynote Speech :

the theoretical framework of the conference

Jacques SOURIAU
Centre de Ressources Expérimental
pour Enfants et Adultes
Sourds-Aveugles et Sourds-MAlvoyants
La Rivardière
52 Rue de la Longerolle
F-86440 MIGNE-AUXANCES
Tél : + 33 (0)5 49 43 80 50
Fax : + 33 (0)5 49 43 80 51
Email : jacques.souriau@cresam.org
web site : www.cresam.org

This introduction to this seminar is a personal vision of the problem of meaning based on the daily experience of contacts with congenitally deafblind people, questions from family members and professionals and active research with colleagues, particularly in the Nordic countries.

The first attempts to educate congenitally deafblind children took place in the XIXth century. The vision of the pioneers of deafblind education was to help these children to wrench themselves away from a world of chaos and darkness and enter a world of light and meaning. For them, the key for opening the door which separates these two worlds was language. When Helen Keller in USA and Marie Heurtin in France, produced their first linguistic expression (the fingerspelled word “water” for Helen and the word “knife” produced in tactile sign language by Marie), it was felt that they had joined our human community which meant (ARNOULT, L. 1948 ; MESHCHERYAKOV, A.1979) :

- Categorising the world by means of words
- Mastering language by contact with people practising the same language (fingerspelling or tactile sign language).
- Communicating with other human beings by means of language.

This is how I understood the stories about these first experiences of deafblind education. This is just a narrative which reflects the way people thought at that time (or the way I think they

thought). Of course, the life of these children and their educators could be told in many other ways and obviously they shared a lot of experiences that we could describe in our contemporary terms and concepts. However, theories (narratives ?) can have practical effects, and one of these effects was that congenitally deafblind children were categorised in two groups until the 1960s : the educable ones and the non-educable ones. The lack of capacity to acquire language kept children in the second category.

A new pioneer period took place when the challenge of educating rubella children (many of them being “non-educable”) was taken up in the middle of the XXth century. Jan VAN DIJK and his colleagues of the Deafblind Department of the school for the deaf in Sint Michielsgestel (The Netherlands) provided professionals of all over the world with theories and practices which demonstrated that something could be done (VAN DIJK, J. 1982 ; VAN DIJK, J 1991). It is difficult to summarise and comment on this approach without oversimplification. However, I think we owe to our Dutch colleagues our confidence in the fact that congenitally deafblind children can move (step by step) from lower levels of symbolisation, representation and communication to higher ones. Children were provided with an opportunity not to be stuck to very basic patterns of experiencing life. At that time, in many countries, the development of disabled children (and more specifically of the deafblind children) was very much approached in terms of conditioning and learning mechanisms; behaviorism provided psychology with experimental procedures which helped to make it possible to call psychology a science; behaviorism also provided professionals of special education with methods which allowed these very challenging children to learn something. Of course this type of learning keeps the question of “meaning” at the level of learned responses to signals and we must admit that the model for this type of education is closer to animal training than to human development (actually, all the research concerning primates learning so called “languages” adds a lot of confusion to this problem). But our Dutch colleagues had a much larger view of development, and their theoretical background included other contributions which led to further developments in the history of deafblind education (VAN DEN TILLAART, B. L., JANSSEN, M.J., VISSER, A.S. 2000); I will only mention a few aspects :

- a change of focus from adult controlled learning to collaboration between the child and the adult and a more sensitive attention to the contributions of the child : co-activity was meant to scaffold the child’s competencies until they are strong enough for him/her to act independently.

- a specific attention to the role of the body experience in the formation of knowledge and more specifically concepts and symbols (WERNER, H. & KAPLAN, B., 1963)
- smooth strategies for helping children to move forward from learned reactions to signals to the use of symbols by de-contextualisation and introduction of higher level symbolic tools : pictograms, calendars, conversation books, signs, fingerspelling etc.
- a special mention must be made of the introduction in our field of the attachment theory (BOWLBY, J. 1969 ; AINSWORTH, BLEHAR, WATERS, E. & WALL, S. 1978)) which proved to be very relevant for understanding the emotional problems which often hinder the development of these children. This theory also helped many of us to elaborate new thoughts, especially as regards the qualities which make the adult (family member or professional) a good partner for communication.

The third episode in this narrative is very much linked to another place : the NUD castle (Nordic Staff Training Centre) in Dronninglund, Denmark. I was given the privilege, many years ago, to collaborate with this centre where, being supposed to teach, I learned much more than I taught (somehow, there is no better way to learn than to have to teach) through all the contacts that are available in this beautiful place. My main point of interest, as regards Deafblind children, was language development, and my implicit vision was, as far as I can reconstruct it, that the key to (and the target for) communication, thinking and symbolisation was language. My reference point was language and all other aspects were related to language : before it, we have the preverbal communication, within it, we have a grammar, hidden behind it, we have semantics, what happens because of it is pragmatics etc. From the point of view of meaning, I saw the development of a child as a long winding walk up to the top of a mountain where a certificate of “good language user” should be given to all those who could reach it. Of course, on this long and difficult ascent, the deafblind child should be allowed to walk more slowly, to rest more often, to be supported and given a hand, to use alternative ways, to skip some steps if not essential, to sit and have fun; and even if it was impossible to make it to the top, the important thing was to keep walking up and benefit from all the interesting games and experiences of this journey. Obviously, in spite of the attention given, in my experience of deafblind education, to many aspects of human development which are not directly related to language (togetherness, games, art, kinship, cultural rituals etc.), these aspects were seen as not as essential as language. Of course, there were reasons for that : somehow, teaching language is what we feel we are paid for ; acquiring language, for all of us, was mostly a joyful personal experience that we are eager to share anew with children;

and our daily experience of communication is so much dependent on language that we feel frustrated when we are in contact with people who do not master it.

During the discussions which took place in NUD in the early 90s, the focus was much more about communication than access to symbolic communication and thinking. This change of focus resulted from questions newly raised and from researches newly available. We had questions like :

- Why is it that a rather large number of congenitally deafblind children and adults lack so much creativity and spontaneity when they communicate ?
- Why do they take so little initiative in communicating ?
- Why is it that they mainly use symbolic communication for a limited number of purposes like producing or answering a request, naming, answering strictly formatted questions, mentioning items in a calendar.

The answer to this type of question could have been that these children and adults were limited in their opportunities for development in spite of families and teachers having done their best to teach them. Another answer was to try and see if something was lacking in the way, we, professionals, organised and assessed our educational methods. It meant : identifying the limitations of the adults instead of the limitations of the child; seeing language not as the target toward which all the development is organised, but rather as an activity progressively emerging out of a life-time process of communicative and meaning-making exploration of the physical world through social relationships. We were helped in that by looking at various kinds of sources :

- good practice of families and professionals which demonstrated the possibility for children to enjoy sustained, creative and joyful interactions. This good practice does not derive only from recommendations of experts or educational planning, but also from the creativity that each individual invests in his/her daily practical experience. It happens sometimes, that teachers and family members, purposely or not, play with the rules and transform them so that these transformations (which often go unnoticed by the experts and planners) enrich their activities in a very positive way.
- scientific literature on early child development. The book edited by Jacqueline NADEL and Luigia CAMAIONI (NADEL J. & CAMAIONI L. 1993) and the studies about early imitation were obviously of great help and opened our minds to many other authors. Some

of them accepted the challenge of the questions we asked them about how to help congenitally deafblind children develop naturally in spite of their disability.

During this period of research, a lot of material was produced (DAELMAN, M., NAFSTAD, A., RØDBROE, I., VISSER, T. & SOURIAU, J. 1996 and 1999 ; RØDBROE, I. & SOURIAU J., 1999 ; NAFSTAD, A. & RØDBROE, I. 1999) and many events were planned. Five international courses and seminars were organised in France by the Working Group on Communication (now named “DbI Communication Network), reflecting a longstanding collaboration between European experts, University researchers and a larger and larger number of professionals all over Europe. All this work which was done by people with various backgrounds and from various national cultures also reflects how, on a very tiny topic (i.e. the education of congenitally deafblind people, a very small number of individuals in the world), very sophisticated questions and aspects of knowledge have to be dealt with. The question of “meaning-making” was not specifically addressed as such in the very beginning of this research but it emerged progressively from other questions. Again, at the risk of oversimplification, I will suggest that implicitly, our vision of “meaning” changed over time in the following way :

1- communication :

First, the focus was on communication : aspects like rhythm, proximity, attention, reciprocity, mutual and immediate imitation were addressed as key elements in the process of establishing communicative episodes and this was very much in line with the attachment theory. A lot of attention was given to how to be sensitive to the child’s expressions and to how to recycle these expressions in an experience of communication. The idea was also that communication is not an aspect of development, but a process within which human development happens (this is an influence of NADEL & CAMAÏONI’S book : “communicative development” 1993). The musical nature of communication was stressed not only as an instance of communicative experience, but also as a core aspect of it (HAUGE, T & HALLAN TØNSBERG, G. 1996). At this stage, I dare summarise our vision of “meaning” with the title of the famous tune by Duke Ellington : “It don’t mean a thing if it ain’t got that swing !”. In other words, something “means” if it has a function in an (musical) experience of communication. Meaning is to be found in what happens between two people.

2- communication about something

From the very beginning, we understood that direct body contact was the easiest way to be accepted by a congenitally deafblind person as a good partner for communication and immediate imitation proved to be a powerful way for establishing body-emotional synchrony and triggering sustained activities of exploration of human interaction and communication (NADEL, J., GUÉRINI, C., PEZÉ, A. & RIVET, C. 1999). But often, using objects was more a difficulty than a support for sustaining a communicative experience.

However, some objects (like big balloons or musical instruments), seem not to be intrusive and even to expand and amplify the quality and the complexity of body contact. These objects, at this stage, are not exactly a focus for joint attention. They rather belong to the space of interaction. However, because of the body emotional traces they are loaded with, these objects are progressively singled out of the background in the child's perception of the world. At this level, perception and meaning work together, things are actually perceived in an active way because they mean something.

Other types of objects belong to the world of the children, objects which are used by them for their idiosyncratic and stereotyped exploration of their own body in the world. The function of these objects can be transformed into an experience of relationship as long as the partner is able to smoothly take part in the activity of the child. In this situation, the problem is not to introduce an object within an interaction, but to introduce oneself as a person in the idiosyncratic interaction between the child and this object. These objects that the children use for their stereotyped behaviours are extremely well perceived by the children, in the sense that they often unexpectedly single them out of the background. But they function only as signals for idiosyncratic experiences. Only the intervention of a partner can make it possible for this object to become loaded with memories of social interaction.

In the tradition of deafblind education, other types of objects can be introduced with the intention of developing symbolic competencies : objects of reference, pictograms etc. The idea is that these objects will take on a sort of symbolic efficiency by being presented in contiguity with the activity they are supposed to symbolise. This is a traditional associationist view. This can work and transform these objects into signals for activities. But, the opportunity for them to become really symbolic depends very much on the teacher capacity to use them in a communicative way, which means in sustained interactions with a lot of body expressions related to the activity which is meant to be symbolised. On these conditions, an object can be more than an element in a mechanism and become a support for thinking and imagination. These objects can become elements for games in the child's mind or between the

child's and her partner's mind; and this is because their first introduction in the interaction was already a game, a blend between an original playful activity and its bodily imitation, or an original experience and its projection on a surface (drawing, pictogram.), or the manipulation of an object in a primary context and a new manipulation of a similar object in a derived imitative context.

In summary, the symbolic value of objects can be restricted to being signals triggering very specific behaviours. Or they can take on a much wider and creative semiotic value and this possibility depends on the partners' interventions. I will to say that sometimes, the capacity for the children to function at a symbolic level can be hindered by individual attitudes or educational programs which support only the "signal" function of objects.

3- communication about something in our minds

This discussion about objects is partly derived from the concept of secondary intersubjectivity which was proposed many years ago by Colwyn TREVARTHEN (TREVARTHEN, C., & HUBLEY, P. 1978). The question of the introduction of objects is a difficult one when the children are blind or very poorly sighted. Researches by Gunilla PREISLER (PREISLER, G. M. 1993). demonstrated very precisely that this is a difficult task for blind children, whereas it is as easy for deaf children as it is for sighted hearing children. However, when the dynamics of a communicative episode are good, this introduction of objects is quite easily feasible. Good quality means sensitivity and creativity from the partner, but also attention to using the tactile sense as much as possible.

But maybe the vision of an object as being as such a third element in the exchange is the result of a mistake in which we mix up a mental entity with the vehicle of this entity. Body expressions or manipulations of objects are events that we can perceive in the physical world but they possibly point at invisible mental activities, images, memories, imaginary games that constitute the real object of an exchange. This requires a capacity for imagining that other people have minds where pieces of knowledge are stored and motives for interpersonal activities are active. The development of this capacity in children has been studied for instance by Luigia CAMAIONI (CAMAIONI, L. 1996) when she contrasted imperative and declarative pointing in child development (imperative refers to a child wanting to change something in the physical world and declarative pointing refers to a child trying to access

other people's minds). Much research about the theory of mind tries to describe when and how this capacity emerges in children during their development or is possibly lacking in abnormal development (for instance in autistic children). This capacity to identify with other people's minds is, according to TOMASELLO a uniquely human capacity "for identifying with other persons and so understanding them as intentional agents like the self" (TOMASELLO M. 1999). Here, I would suggest that we look at how this aspect is taken into account by deafblind people's partners. In the world of congenitally deafblind children and adults, there was a tendency to interpret the expressions of children and adults as mainly imperative (ex : making requests) instead of declarative (sharing interests, memories, feelings, intentions). Probably the enormous energy which is required for supporting these children or adults makes it possible to overlook the emerging declarative expressions. This is not true only for the care workers or family members in their daily contacts, but also for the experts or program leaders when they design programs or when they give advice. The sensitivity to Congenitally Deafblind people as having active social minds implies reactions from care-givers which will be more symbolic than practical (it is important to notice that the practical tasks implemented by adults with babies who are not disabled are rarely only practical; most of times they are performed in a mimetic, dramatic and narrative way), for instance, mimicry, role playing, humour, teasing, delaying, surprising, commenting, imitating, expanding, which leads us to the fourth point I would like to address now.

4- communication about something which happens in an active body-mind

Narratives and blending.

To identify a concept able to link elements which are part of the physical world, of the individual mind and of the space of emotional exchanges between human beings is a crucial contribution to the understanding of human relationships, human activities and human cognition. The concept of "narrative" seems to be able to come up to this expectation. The continuity between 1- playing with a bell in a church tower, 2- re-playing the same game with a salad-shaker as a bell and the sound of a small bell as the sound of the big one, 3- re-playing the movement of the big bell with one hand, requires at least two elements totally intertwined : a continuity in body activity at each level of representation (ex : rocking with the bell) and a continuity in dynamics, which includes actors, actions, emotional dynamics, props etc. This continuity between these three events would be extremely difficult, even for a very powerful

computer, to recognise, and yet it is almost immediately seen by most of human beings. A very good example of the activity of our human narrative mind was given by René Thom : “Le soleil, par son rayonnement, inonde généreusement la Terre de son énergie. Ce processus –ici encore – n’a rien de sémiotique. Cependant, interprété sémiotiquement, on le considérera comme un “don”. Ce qui conduira beaucoup à y répondre par un contre-don : d’où l’origine des cultes solaires” (THOM R. 1990)¹. This example expresses the idea that a “narrative” is not an effect of the memory; on the contrary, human beings, because of their “narrative” capacity are able to memorise what they lived and use this new knowledge for understanding new situations.

This capacity that human beings have to form stories, representations and images, to use them for understanding and describing new experiences to themselves or to other people, to invade the physical world, by contamination with these permanently transformed pieces of knowledge, is a human activity which, interestingly enough, is studied in the field of the early development, of cognitive science or literature and law (BRUNER J. 1990 ; TURNER M. 1996. BRUNER J. 2002). Besides, the idea of “conceptual blending” - which can be considered as an expansion of the research on narratives and on the bodily origins of meaning and thought (LAKOFF G. & JOHNSON M. 1980) - is an extremely interesting attempt to describe this fluid game with forms which allows us to play together with meanings (FAUCONNIER G. & TURNER M. 2002).

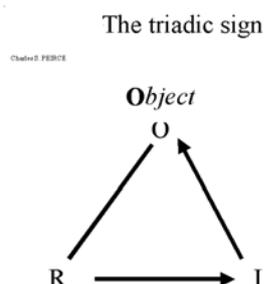
This is the reason why, during the last years of our quest for a better understanding of communication with congenitally deafblind people we started to use these words : “narratives” and “blending”. These concepts will be widely addressed during this course. These concepts offered us an opportunity for improving our capacity to understand congenitally deafblind children’s and adults’ expressions and to react to them creatively. They allow us to think of “meaning” not as something which is previously established and that we have to learn, but as a process which leads to meaningful forms resulting from the communicative activity and leading to new explorations of meaning.

¹ The sun, through its radiation, floods the Earth with its energy. This process – here yet – is not at all semiotic. However, interpreted semiotically, it will be considered as a “gift”. This will lead many to respond to it with a counter-gift : hence the origin of the solar cults.

The idea that “meaning” is something which is stored somewhere as a treasure that we have to discover and learn was very much supported by the influence of “structuralist” researches . The description of language as a structure (SAUSSURE F. 1916) within which the meaning of every component depends on its function in the system in relation with the other components led to researching other aspects of human life that could be described in the same way. For instance, LEVI-STRAUSS’s anthropology (LEVI-STRAUSS C. 1958) can be seen as a blend between this structuralist approach to language and the study of human cultural life (kinship, art, social organisation etc). The influence of structuralism produced a vision of human social life where structures determine and preform any individual production. For instance, myths, according to LEVI-STRAUSS, obey a finite set of rules and work with a limited number of elements (actions, characters etc) exactly as language. It is almost possible to predict, from a few myths belonging to a given environment, which other myths the system is able to produce. The fact that this research (in linguistics, anthropology and other fields) was focused on “structures” led to an idea of “meaning” as very much predetermined not only by the structure itself, but also by the cultural products created by previous generations in a given culture (language, myths, architecture etc.). And it is true that every newborn meets a world where these cultural elements existed before its own experience of life. From that point of view, life provides very little freedom. However, not all the behaviours and not all the cultural products are predictable, far from it, and this would support the idea that there is some freedom somewhere. Actually, as individual human beings, we can have a tendency to look at life as a either world of constraints or as a world of opportunities. Freedom and opportunities could be seen as very much limited by the existence of other human beings and of society as such because of all the constraints they impose on the development of each individual. However, it seems that it is exactly the opposite. A good example of that is what happened to children raised with very little exposure to other human beings (wild children, children suffering from lack of human care in hospitals etc). These children tend to adapt to a very limited set of constraints (essentially some aspects of the physical environment) and develop very little competency for playing and imagination. By contrast, human interactions and communicative experiences provide the children with an unlimited number of opportunities not only for practically experiencing the world, but also for experiencing other worlds made of fantasies, stories, hypotheses, etc. So, it seems that the space for meaning-making is the space of social exchanges. This view was already expressed by Mikhail BAKHTIN (1929) when he criticised both “idealistic subjectivism” and “abstract objectivism” in linguistics; for him the meaning of the word was originated neither in a

individual expression/intention, nor in an external and fixed structure, but results from the exchanges between human beings : human minds host these elements of meaning (words) and use them, contributing to the establishment and development of a superstructure (language) which reflects the situation and the changes in the life of the society where this language is used.

However, this fluidity and creativity in the negotiation and use of meaning requires also elements of stability so that entities can be recognised as the same by two different people or at two different times by the same person. These elements of stability have been looked for in various places : in the language itself (which allows you, during this lecture, to understand somehow what I mean), in the structures which organise our knowledge of the world (and which reflect both a cultural construction and the rules with which we think) and also in the organisation and rules of the thought itself (for instance formal logics). But, in our daily contact with congenitally deafblind children, we experience the fact that these elements of stability are not at all enough for understanding each other (a knowledge of sign language proves very often not to be relevant or sufficient), that meaning is expressed in many ways which are not necessarily canonical or established (all sorts of body expressions have to be taken into account) and that these expressions can work at various levels (as signals, conditioned reactions, symbols for request, symbols for thoughts etc.). In a way, any kind of element of the physical world or of body expression could take on a semiotic function; in order for these semiotic expressions to be understood by two partners in a communicative exchange, both two partners must know the specific rule which provides this specific expression with a specific meaning. This is where I would like to underline how much we owe to C.S. PIERCE for providing us with a vision of meaning and communication which is fundamentally triadic (DELLEDALE G. 1979). At this level of the discussion, it would take too much time to develop this approach, but we can just look at the triadic system involving a representamen, an object and an interpretant.



According to this view, an element of the world (a sentence, an object, a gesture which is called here a “representamen”) can be connected to an object which it represents through the action of an interpretant (that is a kind of knowledge or rule which determines to which object, the representamen points). These three elements are all necessary for meaning to take place. They happen in one mind. But in order for two people to understand each other, they need to have the same interpretant. For instance an expression like “le ciel est bleu” (the sky is blue) can mean either that there is no cloud in the sky, or that life is nice, or that the ceiling over the bed is blue (and many other things in other situations). This triadic vision of meaning is easy to perceive when we are in contact with young children or congenitally deafblind people. The richness of the exchanges with them is very much dependant on an intimate knowledge of their life. This knowledge activates the relevant interpretants and allows not only to understand and interpret the expressions, but also to play with them. A stranger will easily miss them or will react inadequately to them because of his lack of intimate knowledge. The only way out for a stranger is to co-create, with his new partner, a world of communication within which the expressions will make sense. This triadic vision of meaning does not discard the utility to have access to language, for instance, or to other types of socially organised semiotic systems, but lexicon and grammar alone will not be able to provide linguistic utterances with semiotic function unless a third element makes it possible.

Conclusion :

It is remarkable that in this field of congenital deafblindness we came up with this philosophical question of “meaning” or “meaning-making” and that this question emerged from our quest for communication. It looks as if communication and meaning were two aspects of a same experience.

Scientists and philosophers who studied the question of meaning had to start from very evolved forms of communication and human life (language, discourse, kinship, art, technology) and to find “hidden” mechanisms that these cultural forms both hide and reveal; research on the bodily narrative origin of meaning and linguistic expressions are a good example of that (LAKOFF G. & JOHNSON M. 1980) ; the “semiotic” process, in the sense used by Julia KRISTEVA, describes also how deep motives of human beings manage to cheat the ruling power of language through “lapsus”, delirium or poetic forms (KRISTEVA J.1974). By contrast, in the congenital deafblind field, we start from a totally opposite point : we have to co-create in the course of the exchanges the games which give the children the

possibility to develop their own capacities for communicating and making sense of the world and to join in progressively the culture they take part in. In these processes, we meet the same questions as the scientists and join them in their quest. But from the very beginning, we experience the dialectics between the fluidity of motives and expressions and the emergence of forms in the meaning-making activity we share with congenitally deafblind people.

And we discover that “meaning” precisely emerges from the lack of mutual understanding. It is because of the clashes which happen in communicative episodes (and a clash is not as such a negative experience, but rather an experience of both togetherness and separateness) that a shared quest for meaning develops. This idea of “meaning” as resulting from a resistance was also mentioned by C.S. PEIRCE, not only at the level of the communicative experience between human beings, but also at the level of the contact with the physical world. This idea is also to be found in the way René THOM uses the concepts of “pregnance” and “salience” as related to the process of morphogenesis. In other words, the more we understand each other, the more we discover new sources of misunderstanding which lead to the emergence of new meanings. This reminds me of a text by John LYE (1996) about literature. John LYE asks the following question : where is the meaning ? In what is intended by the author ? In the text itself ? or in the reader ? The answer is : none of them. At each level where a human being is involved, meaning is a process of negotiation : “Meaning is not pre-existing, but neither is it simply made-up. Negotiated meaning is at once both historical and dynamic, contextual and unique.”

In this permanent and pervasive process of meaning-making, all sorts of aspects of human life take on a semiotic value (objects, words, stories, art artefacts, gestures etc). But they are never themselves the locus for meaning. We should rather see them as “pointing to” spaces where “meaning” can take place and be shared or negotiated. Meaning is like Heraclite’s river : always and never the same.

This human quest for meaning is rooted in very early and deep competencies/experiences that even very disabled children are not deprived of. As a conclusion, I would like to quote Colwyn TREVARTHEN from an article he wrote recently : [Mother and baby] “behave like two competent musicians improvising together without no score.... To do this baby and adult must have a matching sense of the time of action and experience, and the variations in pitch, loudness and quality of their sounds must tell similar “stories” – they must be playing in the same field of emotional meaning” (TREVARTHEN C. 2002). It is because of our standing capacity to dynamically co-create stories at a very bodily-primitive level that it is still possible

for us, in spite of our high education, to keep being accessible to congenitally deafblind children and adults and to accompany them in their meaning-making adventure.

List of references :

- AINSWORTH, BLEHAR, WATERS, E. & WALL, S. (1978). *Patterns of attachment. A Psychological Study of the Strange Situation*. Hillsdale (N.J.):Erlbaum.
- ARNOULT, L. (1948). *Ames en prison*. Boivin & Cie. PARIS
- BAKHTINE, M. (1929) *Marksizm i filosofija jazyka*. Leningrad. Traduction française (1977) : *Le marxisme et la philosophie du langage*. Editions de Minuit. Paris.
- BOWLBY, J. (1969). *Attachment and Loss, vol. 1 : Attachment*, London, Hogarth Press.
- BRUNER J. (1990) *Acts of meaning*. Harvard University Press
- BRUNER J. (2002) *Making stories*. Farrar, Strauss and Giroux ; New York
- CAMAIONI, L. (1996). L'émergence de la communication intentionnelle en ontogénèse, phylogénèse et pathologie. *Le développement de la communication: Quoi de neuf ? Actes du cours international*, Suresnes, 23 - 26 juin 1996.
- DAELMAN, M., NAFSTAD, A., RØDBROE, I., VISSER, T. & SOURIAU, J. (1996) *The Emergence of Communication . Contact and Interaction patterns. Persons with Congenital Deafblindness*. CNEFEI. IAEDB Working Group on Communication. Video. CNEFEI ; Suresnes, France
- DAELMAN, M., NAFSTAD, A.V., RØDBROE, I., SOURIAU, J. ET VISSER, T. (1999). *L'émergence de la communication. Part II*. Enregistrement vidéographique. Suresnes, France: CNEFEI - Centre National de Suresnes.
- DELLEDALE G. (1979) *Theorie et pratique du signe. Introduction à la sémiotique de Charles S. Pierce*. Payot. Paris.
- FAUCONNIER G. & TURNER M. (2002) *The way we think*. Basic books. New York.
- HAUGE, T & HALLAN TØNSBERG, G (1996): The Musical Nature of Prelinguistic Interaction. *Nordic Journal of Music Therapy* 5(2), 63-75.
- KRISTEVA J. (1974) *La révolution du langage poétique*. Seuil. Paris.
- LAKOFF G. & JOHNSON M. (1980) *Metaphors we live by*. University of Chicago Press. Chicago.
- LEVI-STRAUSS C. (1958) *Anthropologie Structurale*. Paris. Plon.

- LYE J. (1996) The problem of meaning in literature.
<http://www.brocku.ca/english/jlyie/meaning.html>
- MESHCHERYAKOV, A., (1979). *Awakening to life*. Progress Publishers. Moscou.
- NADEL J. & CAMAIONI L. (1993). *New perspectives in early communicative development*. London. Routledge.
- NADEL, J., GUÉRINI, C., PEZÉ, A. & RIVET, C. (1999). The evolving nature of imitation as a format for communication. In Nadel, J. & Butterworth, G. (Eds): *Imitation in Infancy*. Cambridge: Cambridge studies in cognitive and perceptual development. Cambridge University Press. United Kingdom.
- NAFSTAD, A. AND RODBROE, I. (1999) *Co-creating communication. Perspectives on diagnostic education for individuals who are congenitally deafblind and individuals whose impairments may have similar effects*. Forlaget Nord-Press, Dronninglund, Denmark
- PREISLER, G. M. (1993). Developing communication with blind and with deaf infants. *Reports from the department of psychology*, Stockholm, 1993, N° 761
- RØDBROE, I. ET SOURIAU J., (1999). Communication, in McINNES, John & McINNES, Jackie *Programming, Intervention and Support for Persons With Congenital and Early Adventitious Deafblindness*. University of Toronto Press. Toronto.
- SAUSSURE F. de (1916) *Cours de Linguistique Générale*. Payot. Paris.
- THOM R. 1990. Morphologie du sémiotique. in *Apologie du Logos*. Hachette. Paris
- TOMASELLO M. 1999. "The cultural origins of human cognition" Harvard University press. Cambridge
- TREVARTHEN, C., & HUBLEY, P. (1978) Secondary intersubjectivity. In A. Lock (Ed.), *Action, gesture and symbol : The emergence of language*. London: Academic Press, 183-229.
- TREVARTHEN C. (2002) Autism, sympathy of motives and music therapy. *Enfance 1/2002*. PUF. Paris.
- TURNER M. (1996) *The literary mind*. Oxford University Press. New York.
- VAN DIJK, J. (1982). *Rubella Handicapped Children. The effects of bi-lateral cataract and/or hearing impairment on behaviour and learning*. Lisse: Swets & Zeitlinger.
- VAN DIJK, J (1991) *Persons handicaped by rubella : Victors and Victimes - A Follow up study*. Lisse : Swets and Zeitlinger

VAN DEN TILLAART, B. L., JANSSEN, M.J., VISSER, A.S. (2000) L'histoire de l'éducation des sourds-aveugles à l'Institution pour Sourds de Sint-Michielsgestel (Pays-Bas). Évolutions théoriques et pratiques. In *ENFANCE*, Numéro 1/200 PUF Paris

WERNER, H. & KAPLAN, B., (1963). *Symbol formation: An organismic developmental approach to language and the expression of thought*. New York. John Wiley et Sons.



COMMUNICATION
NETWORK UPDATE SERIES