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REMARKS ON MOTHER-CHILD COMMUNICATION, ESPECIALLY THE ROLE OF INTONATION.

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Abstract

In face-to-face communication the verbal signals of speech are accompanied by non-verbal signals, both vocal and somatic. The relative importance of these signals, their relation to one another and the way in which this is expressed in the child directed speech of adults and in the adult directed communication of children is discussed with special reference to the vocal, tonal, signals.

INTRODUCTION

In speech as opposed to written language the verbal signal is interrelated with and accompanied by non-verbal signals, both vocal and somatic. The vocal signal has a double function in speech, expressing both a) grammatical features such as sentence intonation or focal accents and b) paralinguistic features such as attitudes and emotions. Despite the communicative force which is inherent in each one of these signals the verbal signal is usually considered as the more important means of communication. For the little child the situation is reversed as the child during his first year has to rely on non-verbal vocal and somatic signals before he begins to develop verbal language during his second year. Even after his second year non-verbal signals will continue to play a very important part in his communication. If the child is to acquire and develop a language it is necessary that the child is one of the partners in a dialogue. In adult-child dyads it is the adult's task (from a linguistic point of view) to support the child's communicative efforts. If the adult is an attentive, watchful and cooperative person he will encourage the child's endeavours to take and keep the initiative in a dialogue (see Söderbergh & Bredvad-Jensen, 1987). Now, what strategies does the child use to signal his intentions to the adult partner? What strategies does the adult use in order to make it possible for the child to fulfil his dialogue intentions? Are there specific tonal strategies which can be used either by the adult or by the child?

ADULT STRATEGIES

Adult strategies used in communication with a child need not be conscious; rather the major part of them are probably not worked out consciously. It is a well-known fact that adult speech directed towards small children and infants has certain characteristic traits, it represents a speech register, commonly known as Baby Talk (BT) or motherese. In a thorough analysis of this speech register, Karin Junefelt has coined the more adequate term child-adjusted communication (CA) (Junefelt, 1987). Now, what strategies does the child use to signal his intentions to the adult partner? What strategies does the adult use in order to make it possible for the child to fulfil his dialogue intentions? Are there specific tonal strategies which can be used either by the adult or by the child?

What functions does CA fulfil? It is supposed to a) both arouse and keep the child's attention and to b) facilitate the child's understanding and acquisition/learning.

Which are the CA characteristics? For earlier sum-ups and reviews concerning primarily a) phonological and lexical features, see Ferguson (1964; 1977), b) syntactical, semantical and redundancy features, see Snow (1977), and c) prosodic and paralinguistic features, see Garnica (1977).
a) **Lexicon** is characterized by its special 'baby words' as, e.g., Swedish "kisse" instead of "katt" (cat) and English "choo-choo" instead of "train". In these words phonology is often reduced and reduplication is not uncommon.

b) **Syntax** is simplified and very short sentences are used, sometimes consisting of only one or two words as in the Swedish example: "sitta vagnen" (sit pram).

c) **Prosody** is clearly affected. The pitch range is increased considerably. The pitch of voice is raised and there are more intonational variations. The speech tempo is slowed down. The loudness of the voice is varied, either increased or decreased. These adjustments are made in order to attract the child's attention more easily. So acoustically both Fo (fundamental frequency), amplitude and duration are changed in this special child directed speech. This is especially evident in the sentence/phrase accented (or focussed) parts of speech. The new and important information in a sentence is singled out by the adult using these acoustical means. The whole speech may also be characterized by a special 'tone of voice', which has been called "nursery tone", the characteristics of which are the special emotional and affective qualities of the voice.

d) **Articulation** is more distinct than in speech directed to adults.

e) **Pragmatics** is also influenced by CA. Redundancy is overwhelming: the adult often repeats the same utterances with little or no variation. Questions are used to a very high degree. Speech content is reduced to what is well-known to the child (the 'here-and-now' aspect).

Who uses CA? Adults (parents) and elder siblings when the age difference between the little child and the sibling is at least two years. Although the parents and the siblings use CA formally in the same way there is a qualitative difference in the usage as has been reported by Carol Thew in 1978. The siblings are more intolerant and dominating whereas the mothers encourage the little child in a sympathetic way which favours language acquisition.

Here I want to make a comparison between the tonal parameters which are characteristic of CA and those characteristic of questions (as opposed to statements).

a) The pitch range (Fo-range) is wider for both CA (as opposed to non-CA) and for questions (as opposed to statements).

b) The pitch is higher for CA and for questions (than for non-CA and for statements respectively).

c) The Fo-configurations in the focal (sentence accented) parts of an utterance are more pronounced with relatively wider excursions compared to the non-focal parts; this holds for questions as opposed to statements, as shown in Gårding (1979) and Bredvad-Jensen (1983). (Although the same kind of relation between focal and non-focal parts of the sentence also holds for statements, the differences between the parts within statements are less pronounced.) Comparing CA with non-CA you will probably find larger Fo-excursions in the focal parts of the CA. CA might be considered as a special case of involved/engaged language, although it is of course possible to make involvement variations within CA. As Bruce (1982) has shown for involved language: involvement results in larger overall Fo-excursions, but not with the same relations as in questions. If a question is involved/engaged this should result in a further increase of the Fo-excursions.
CHILD STRATEGIES
What strategies does a child use in order to call the adult’s attention to something? He may make more or less extensive use of the verbal, vocal and somatic signals discussed above. Verbally through supplying or asking for information: "Look, it’s like Granny’s.", "What’s this?" Somatically through grasping or pointing to something. Vocationally through using a special voice quality or tonal configuration. For example a child may mumble loudly but inarticulately. One might speculate if there is a definite set of tonal configurations for the "attention-getters", if there is any difference between those "attention-getters" which are mainly verbal (and/or somatic) and those which are mainly vocally manifested (or at least without a verbally formulated message) and/or if there is a difference in effectiveness among different "attention-getters". (Effective = resulting in an adequate answer from the adult.)

DISCUSSION
I will conclude with some speculations and questions. What is the most effective "attention-getter"? Is it an engaged/involved question which is verbally explicit and supported by the somatics (for example a deictic gesture)? We know that parents make extensive use of questions in the CA register and that the CA utterances are characterized by a more high pitched voice and a wider pitch range, a distinct pronunciation with special emphasis on the words in focus and often by the presence of an extended pause after the utterance. This means that the CA communication as a whole might be considered as an effective "attention-getter". But what about the child? I have looked at child initiated episodes which will make possible the comparison between topic introduction and topic continuation for the child. Although the material (from a project investigating syntactical development (see Söderbergh, 1973)) looked at so far is too little for any conclusions, it was found that there was a relationship between both high Fo and wide Fo-range and topic continuation. This relationship did not apply to topic introduction. These observations may be seen to be counter-intuitive (see Bredvad-Jensen, 1988).

However, Schaffer (1984) has shown that in non face-to-face dialogues between adults there was a strong correlation between high beginning Fo-range and topic continuation as opposed to topic change. This also holds for face-to-face communication, but only as a clear tendency.

It should be noted that in the child initiated episodes which I have looked at the parent is not busy with some project of her own, but is free to join in a dialogue with her child, which is contrary to many everyday situations, where the child might need more powerful "attention-getters".

This "free to join in a dialogue situation" also holds for the adult’s child directed utterances in the material, except for some instances where the adult has to call the child’s attention, when the child simply walks away not wanting to continue the recording session.

To conclude: it would be valuable to look at both 1) different everyday situations and 2) parent initiated episodes to find out what the tonal relations are between introduction and continuation of topic.

References


