

**BABY TALK – THE LANGUAGE ADDRESSED TO
LANGUAGE-ACQUIRING CHILDREN: A REVIEW OF THE
PROBLEM**

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1. Introduction

'How do children acquire the language they are brought up with?' is one among many yet unanswered questions in modern linguistics. Behaviourist stimulus – response hypothesis claimed that children come to use language as a result of being trained by their parents. This, however, was not enough for Chomsky (1965) and his followers who strongly objected to this simplistic answer. Instead they put forward the L A D (Language Acquisition Device) hypothesis according to which humans are genetically predisposed to acquire language and so they do not learn it simply by listening to parents. Leaving the nature versus nurture controversy out of our discussion it remains to be admitted that the impact of Chomsky's hypothesis minimized the active linguistic environment into which children are born and grow up with.

Consequently, until quite recently it was thought to be possible to study language acquisition without studying the caretaker's speech directed to young language learners. However, descriptive evidence collected by Snow and Ferguson (1977), Cross (1978), Lewis and Rosenblum (1977), among others, allows one to believe that a detailed investigation into the nature of the language addressed to the language – acquiring children may provide new insights into the process of acquisition.

In every culture and in every speech community adults talk to children who are beginning the process of acquiring their linguistic competence in a different way they would do among themselves. The fact that mothers or other primary caretakers modify their utterances when talking to infants has been attested for Spanish, English, Latvian, Marathi, Maltese, Arabic, Berber, Cocopa, Kipsipis, Luo and many other languages (Brown 1977). Thus, one may venture to assume that it is a universal phenomenon.

This special register reserved to children is referred to by many terms, but most often it is called 'input language', 'child-directed speech' (CDS) 'Baby Talk' (henceforth BT), 'motherese' or simply 'mothers' speech'. Although the last two terms may misleadingly suggest that it is used only by mothers, the truth is that even children raised by fathers, older siblings or other relatives have access to it.

Even for a casual observer, caretaker speech is simple, redundant, contains many questions and imperatives, few disfluencies and so it is pitched higher and has an exaggerated intonation pattern. 'Why do people change their speech when talking to babies?' and 'What effects does it have on the course and rate of acquisition?' are the two basic questions motivating research into the nature of speech addressed to children. Further motivation comes from the assumption that children learn to talk by conversing with their adult caretakers and the quality of these conversations may be crucial to the process of language acquisition (cf. Lewis and Rosenblum 1977).

2. The awareness of Baby Talk among linguists and caretakers

Although the nature of speech to infants was left out of linguistic investigation for quite a long time, Ferguson (1977) reminds us that the actuality of a phenomenon such as Baby Talk was acknowledged at least as early as the first century BC by the Roman grammarian, Varo (Heraeus 1904). Much later some properties of Baby Talk were noted by anthropologists investigating American Indian languages (for details see Sapir 1929). However, among the modern accounts of the specificity of speech addressed to young children, apparently the first one is owed to the Danish linguist, Otto Jespersen (1923). Ferguson (*ibid.*) mentions also that Allen Walker Read in 1946 presented a paper in which he cited the names of linguists preoccupied with the Baby Talk phenomenon from the 17th to the 20th century. Unfortunately, there is no printed record and apparently his paper has never been published.

Paradoxically, it might seem, the explosion of a genuine interest in the linguistic input infants receive, was generated by Chomsky (1967). In the late 60s in response to his claim that language is innate and thus mostly independent of the linguistic environment that offers ungrammatical, fragmented and confusing samples of language, a number of detailed descriptions of Baby Talk followed in order to refute Chomsky's hypothesis (for a review of studies see Farwell 1973 and Vorster 1975).

Having briefly discussed the awareness of Baby Talk among linguists, it seems tempting to ask whether caretakers are also conscious of the 'babishness' of their speech directed to their young interlocutors. Garnica (1975) in addition to observing mothers conversing with their infants, conducted a series of interviews with mothers (all were highly educated) and found out that most of them were aware of certain differences between the way they talked to adults and to their language acquiring 2-year-old infants. One mother remarked:

There are plenty of times when I don't stop to think that he is two and I'll just mumble something at him or make some kind of demand on him and don't really think about whether

or not he can understand it. And that's when he is most likely not to understand at all (Garnica 1977: 87).

Thus, mothers do realize that they talk a slightly different language with their children if they are ready to admit that the failure to use it may cause a breakdown in communication. Furthermore, Garnica's subjects were also able to specify some aspects of changes in their utterances. Some of them noted that they used a higher pitched voice, an expanded range, less volume in voice and slower speech (cf. Garnica 1977). Similarly, all the subjects admitted that they used those devices as they found them, through experience, most effective in communicating with their children. On the other hand, as remarked by Brown (1977), some very education orientated parents consciously attempt not to use Baby Talk register but they use normal adult speech believing that babies already talk like babies and should not be spoken to in a simplified register but in a normal one. However, as observations show, those parents manage to eliminate only the most obvious features of Baby Talk from their speech to infants, for example diminutives saying 'cat' instead of 'kitty', but they still unconsciously use many other characteristics of Baby Talk.

3. The use of Baby Talk

Since it is largely undeniable that parents use Baby Talk when conversing with their young children, among many questions that remain to be asked is 'when and for what reason it is used'.

With regard to the time when parents tend to apply Baby Talk while interacting with their children, available studies are fairly consistent and estimate it at somewhere around the first, second, third, or even the fourth year of the child's life. It is also occasionally used with older children under special conditions. This, however, varies in different speech communities. For example, speakers of the Comanche speech community use Baby Talk from the time when the child seems old enough to understand speech, about one year of age, up to the time when s/he has mastered the basics of the native language. Consistently, the child is mocked if s/he uses BT forms as late as five years of age. On the contrary, BT is used in Cocopa for boys up to six or seven years of age and for girls even as late as ten, and even in their early teens to show affection (cf. Ferguson 1977). Yet, some results suggest that the special style of a mother's speech is not elicited by age, but rather by the mother's willingness to notice indications of some psychological ability to comprehend speech on the part of the child (Bruner 1977). Subsequently, Bingham (1971) found out that those mothers who believe that their pre-lingual infants are able to comprehend quite a bit of what they say to them, tend to address them in a simplified register, whereas it is not valid for mothers who underestimate their infant's ability to understand spoken language. Generally, however, it is after the first recognizable words are produced by the child that the speech directed to him or her becomes less complex and more BT-like than before (cf. Lord 1975). This suggests that the special register used for communicating with language-acquiring infants is a purposeful device in the caretaker - learner interaction.

Brown (1977) and Ferguson (1977) with a considerable degree of scepticism

report that parents when asked in the abstract, 'why they use Baby Talk', are likely to say, 'To teach the child to speak' (Brown 1977:11). Fortunately, for children however, even though American as well as Comanche and Berber parents promptly credited themselves with a pedagogical goal, in reality they do not explicitly enter upon language teaching sessions. It seems rather that the intention behind the use of a simplified speech style is more communicative than pedagogical. Indeed, as it was throughout pre-linguistic development, the intention to communicate is the most important determinant of the caretaker's efforts. Thus, as stressed by Brown (1977), the force behind the use of Baby Talk, is the desire to communicate with young children even though their linguistic ability remains quite low. Similarly, Garnica's interview data corroborate Brown's opinion and suggest that mothers do not use Baby Talk to teach language to their children, but in order to make themselves understood, to keep two minds on the same topic by controlling attention, to improve the intelligibility of their speech and mark utterances as directed to children; in short, to maximize their chances in guaranteeing communicative interactions.

4. The origin of Baby Talk

If one agrees to accept the universality of BT, it appears natural to ask where this phenomenon originates. In other words, 'where does Baby Talk come from?'

Brown (1977) suggests that there are two sources from which caretakers derive their special register: the 'Talk of Babies' (henceforth TB), and of course, Adult Speech (AS).

Bearing in mind that the prime goal of caretakers' linguistic endeavour is communicating with the child, it is hardly surprising that they may initially restrict themselves to what the baby already knows in order to hold his or her attention and pass the message. Thus, some features of motherese might originate in the child's attempted linguistic expressions which have been adopted by adults as useful in communication with the child. Indeed, many features found in the caretaker's speech, are also characteristic of the way babies try to talk. Garnica (1975) and Sachs and Johnson (1976), for example, have demonstrated that adults and infants alike use a higher fundamental pitch than adults do when talking among themselves. Furthermore, as pointed out by Cross (1977), both caretakers and young learners tend to imitate, repeat and produce speech with low Mean Length of Utterances (MLU) and low semantic complexity. Among other shared features, the use of proper names instead of pronouns in the speech of caretakers and their babies is widely documented (Wills 1977). Still, there are other aspects of BT that cannot be considered as being derived from infants' attempts at using language.

In this respect viewing BT as a simplified register derived from adult speech seems more convincing. In order to explain the mechanism behind the BT register, Ferguson (1977) described three processes by which it can be derived from normal adult speech. First, BT may be regarded as a version of adult speech which is reduced in scope and structure, and modified for the use with infants mostly by simplifying or reducing processes that produce forms which are believed to ease the child's task of comprehension and production.

Simplifying processes are wide-spread in phonology and attested for even unrelated languages. The BT generally avoids difficult sounds which require more precise articulation, substituting them with easier sounds due to assimilation or vowel harmony. For example, in English [r] in adult speech becomes [w] in BT, thus AS [rabbit] = BT [wabbit] or in Polish AS [r] = BT [l] or [j] as in AS [rower] and BT [jowej] or [lowel]. On the whole, liquids are largely omitted or replaced by labial apical stops, nasal or labial and palatal glides. Accordingly, it may be speculated that there might be some correspondence between this and the fact that liquids are the latest correctly produced sounds. Similarly, in Arabic and Berber, for example, there are almost no emphatic and labialized velars and all clusters are simplified.

The most obvious reductions of adult forms, however, are found in BT lexicon. Although, theoretically any lexical item of AS could be simplified and used in BT, in fact the vocabulary used by caretakers is fairly small, as they tend to apply only the words which can be successfully acknowledged by the infant due to his or her experience and knowledge of the world. Thus, for example, looking at the naming practices of adult caretakers Anglin (1976) and Rosch (1976) found out that there is a difference when the caretaker names the same object for an adult and for a child. Namely, what is 'money' for a child, is 'dime' for an adult; 'carnation' for an adult, but 'flower' for a child; 'bird' for a child, but 'pigeon' for an adult. Brown (1977) offers the most plausible explanation to this saying that when naming for a child, mothers name on what constitutes 'the basic object level' for the child which differs from that of an adult. Thus, flowers are more alike for a child in that they may be sniffed, but are not to be picked up, whereas adults need more differentiation. Similarly, for a child all money is equivalent of being dirty and inedible but not to be thrown away; again adults require more specification (cf. Brown 1977). Generally, the rule of successful communication can be put in the following way: 'If you want to communicate, you have to talk about something the baby knows, is prepared to understand, has experienced or is just about to experience' (see Moerk 1972).

Significantly less information is available about simplifying processes in grammar. Among a few well documented ones, there is a consistent reduction of inflectional affixes (for example, in Romanian and Japanese), the replacement of second person pronouns by other forms of address (for example, kin terms or proper names), the use of third person nouns (for example, *baby is finished* or *mommy is coming*) and the use of all purpose auxiliary 'make' with BT nouns in place of inflected verbs (for example, *make pee pee* in English, or French *faire dodo*, meaning sleep). Furthermore, BT words may be used with a wide range of grammatic – semantic functions, which interestingly overlap with the way children use their one-word or two-words utterances. Also, very often elements of AS are being omitted in speech addressed to infants, for example, *the baby is hungry* in AS becomes *baby hungry* in BT (Ferguson 1971).

Secondly, a significant amount of BT style is due to the fact that the caretaker, in addition to speaking a simple and linguistically restricted language, adds extra clarity to what s/he has to say. Thus, s/he uses exaggerated intonation contours,

as attested for English and Marathi BT (Pike and Lowe 1969). Garnica (1977) reported that a considerable preponderance of rising pitch terminals in imperative and declarative utterances, usually not found in adult speech, aimed at assisting the child's analysis of linguistic material by cueing him or her to the location of sentence boundaries and so it consequently had an effect of regulating exchange, indicating to the child when s/he is expected to respond. Also, the use of extra stresses seems to divide the sentence into pieces easily processed by the child and at the same time informs the child about the constituent structure. Further, the longer duration of words might indicate to the child the key elements of the utterance directed to him or her.

Yet, the most obvious clarifying process in BT is repetition to an extent not found in adult speech. Mothers sometimes without being aware of it, continuously tend to repeat words, phrases and even whole sentences when talking to their children. Newport (1975) reported that 23% of all utterances addressed to children are repetitions. This outwardly finds explanation in the fact that, the younger and more inattentive the listener, the less likely s/he is to comprehend and obey the mother's utterance, so she repeats it. Although, Ferguson (1977) seems to mention repetition, in the sense that the mother repeats herself in order to clarify the exchange, it is also well worth pointing out that she often repeats what the child says or is trying to say. In such situations, she either repeats exactly her child's utterance (3.12% according to Cross 1978), or she expands what she thinks the child is intending to communicate (14.38%). Accordingly, in response to the child's telegraphic utterances, which the mother apparently holds as calling for clarification, she may produce a complete, partial, elaborated or transformed adult version of the child's utterance. For example, the child says, *Book table* and the mother clarifies by expansion, *Yes, the book is on the table*. This clarifying device may have a significant share in drawing the child's attention to the formal aspects of his/her and his/her mother's utterance.

Finally, there are some features of Baby Talk that can be neither attributed to simplifying processes nor to clarifying ones, but they seem to be expressive in nature, as they add affect to the caretaker's speech. For this reason, many languages have a special hypocoristic affix, that is often added to adult words and sometimes used almost exclusively in BT (Ruke-Dravina 1959). For example, *-y/-ie* for English, as in *kitty, doggie*; *-k/-q* in Gilyak, as in AS *gi* and BT *gik* meaning 'shoe', or *-ek/-ecek* for Polish, as in *piesek, pieseczek* derived from AS 'pies' meaning 'dog'. In this respect, the use of BT allows an adult to express his emotions towards the child and the situation which both interlocutors are sharing, from affection, irritation, protection to amusement and so on.

5. The relevance of research on Baby Talk for language acquisition studies

As has been pointed out by Cross (1975), some aspects of BT may influence acquisition throughout the whole development, whereas some may have effects related to a specific stage of the child's linguistic development. Newport (1976) argued that some features of the way mothers speak to their children may have 'incremental' impact on language growth and others may affect linguistic develop-

ment in a threshold way, needing only a minimal frequency to have a maximum effect. In short, it is assumed that the characteristics of BT may either affect the rate or the content of acquisition.

Unfortunately, however, very few studies have provided direct and unambiguous evidence and very few have tested the hypothesis that motherese does account for the child's linguistic progress. Snow (1972) and Clark (1977) are among those few who have suggested that mothers may facilitate acquisition by gradually and systematically exposing the child to the complexities of linguistic structure, carefully avoiding the confusion characteristic of adult speech. Also Cazden (1969) and Brown et al. (1969) have argued that simple and well-formed motherese assists the child in acquiring syntactic rules, whereas Newport (1976) concluded that simplicity and well-formedness of maternal input does not facilitate the child's grasp of syntax. Furthermore, Cazden (1965) and Feldman (1971) have reported that although expansions of the child's telegraphic utterances seem ideally designed to teach children about the structure of utterances, since they provide the correct realization of a given utterance when the child needs it to communicate, they have no positive effect on the speed of language acquisition. On the other hand, Nelson (1973, quoted in Clark - Clark 1977: 302-303) carried out an experiment in which he demonstrated that after 22, 20-minute sessions, children who did not receive expansions or recast versions of their telegraphic sentences, were not significantly different from those who received them, but they had lower mean scores on all the measures of linguistic ability. This finding is consistent with Cross's investigation (1978), who tested the relevance of 60 features found in the caretaker's speech and concluded that mothers of linguistically accelerated children provided more expansions, expansion-like utterances and semantic extensions than did mothers of children developing more slowly (for details see Cross 1978). This finding appears also compatible with the results reported by Snow et al. (1976) and Newport (1976) which confirm that syntactic simplicity may be of secondary importance, but expansions do seem to have impact on the child's linguistic behaviour. Thus, what is most important, is the fact that the mother properly times her interactive turns by matching her child's semantic intensions and freeing him or her to concentrate on the formal aspects of her utterances.

Similarly, Hess and Shipman (1965) suggested that input language may facilitate a child's linguistic development, but only if it is sufficiently adapted to the level of complexity the child is able to process. Consistently, poor quality input, insufficiently adjusted to the child's cognitive structure may noneffectively influence acquisition, or it may even hinder it. Snow (1972) as if objecting to Brown's claim (1973) that the frequency with which various structures appear in input language does not predict the order of their acquisition, suggested that it can have an effect, but only after the child has developed the cognitive basis which allows him or her to use this structure. At this point, it is frequency and saliency of the structure used by the mother that can have a crucial effect on its acquisition. In addition, it has been noted that the child signals to the mother that s/he is ready for a new structure (Van der Geest 1977). Snow (1977:48) gives the following example:

child: *See grampa*

mother: *And what did grampa give you when you saw him?*

Apparently, the child's cognitive development has just reached the point when s/he can distinguish between past and present, and the mother's adequate response to the child's signal will produce an unambiguous example of the past tense and thus can facilitate its acquisition. Likewise, Van der Geest (1977) and Drewes (1973) report that children often use certain semantic features before their mothers, presumably indicating to them that they can apply these features in their speech from that point on.

Finally, the best way to prove that BT is not at all necessary or helpful to acquisition, would be to show that children can learn language, even if the only information about its use came from overheard conversations between adults, from radio or television. Unfortunately, there is no evidence that any such exposure to language is enough for the child to acquire it, perhaps, due to the fact that experiments in this area are sometimes impossible to devise. However, Sachs and Johnson (1976) reported a case of a boy, Jim, who at the age of 3;6, due to his parents being deaf, had only a small vocabulary that he had probably picked up from his playmates, plus a few words from TV commercials (cf. Clark and Clark 1977). Obviously, he had little or no spoken language addressed to him by adults on a regular basis and his language was far behind that of other children at his age. However, once adults started to speak to him directly, his language improved rapidly. In this respect, Sachs and Johnson (ibid.) concluded that the exposure to adult speech, not intended for the child does not necessarily help him or her to acquire language. It therefore allows one to assume that motherese may be crucial to the child's successful linguistic development.

6. Some conclusions

Before the exact role of Baby Talk in first language acquisition can be properly determined, much more research is needed. However, the universality of the phenomenon allowing every child, growing up in any culture, to have the benefit of being addressed in a simplified register of the language s/he is acquiring gives permission for drawing some conclusions. It has been agreed that mothers modify their speech, that is simplify, clarify and adapt it to the child's linguistic abilities, adding some expressive qualities for the purpose of communication. Indeed, it is communication with a linguistically unsophisticated listener, that is the primary aim of Baby Talk. Yet, the way mothers 'tailor' their speech to match the child's cognitive abilities, may have an incidental effect of providing the child with clues to how he can put his own ideas into words and sentences, and use language to carry on conversations. Thus, although there is no explicit intention on the caretaker's part to teach the child how to use words and combine them together, the force behind motherese seems crucial in facilitating the process of language acquisition. The mother using simple utterances is trying to bridge the gap between her linguistic competence and that of her child. Accordingly, she is maximizing her chances for successful communication and at the same time eliciting a linguistic

response from her young language learner. Thus, by gradually exposing the child to various formal aspects of the native language the caretaker is systematically 'leading' the child closer and closer to the form of language s/he will eventually acquire and master to find it very soon indispensable to his/her further interaction with the caretaker and the rest of society.

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