AN ANALYSIS OF CONVERSATION IN HINDI OF INDIVIDUALS WITH DOWN SYNDROME

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Abstract: The present study was an attempt to investigate the conversation of children with Down's syndrome (their natural speech in day-to-day surroundings) to find how these children make sense of people, events and objects and how they respond and interact. The subjects' level of comprehension, intersubjectivity and utterance complexity are some of the aspects that will be investigated using tools from Conversation Analysis; complemented by research on children with Down's syndrome and from the stages of language acquisition to provide a comprehensive picture of the speech of children with Down's syndrome. The results of the present study corresponded with the research of Lenneberg (1967) indicating that the children with Down's syndrome not only have stretched-normal development but also their speech is that of a child in the holophrastic and telegraphic stages of language acquisition. They were mostly able to follow adjacency pairs such as greeting-greeting and question-answer. The turns consisted of simple content words with hardly any negation as investigated by Fowler et al (1994). Intersubjectivity was present for simple yes/no questions but not the open-ended ones that required more elaborate and abstract answers. Their inter-turn pauses can be assigned to their need to think before responding. They simplified their speech by deletion and substitution as noted by Dodd and Thompson (2001).

Keywords: Conversation Analysis, Down syndrome, Intersubjectivity, Language acquisition.

Introduction: Earlier studies have been carried out to study the speech of children with Down syndrome, especially their syntax and sentence structure. The study of their speech in conversation has largely been ignored. Their ability to make sense of events, people and objects around them in their everyday environment, as well as their ability to respond and interact has not been very widely researched. This paper studied the subjects' level of comprehension, intersubjectivity and utterance complexity using tools from Conversation Analysis. Conversation analysis is complemented by research on children with Down's syndrome and from the stages of language acquisition to provide a comprehensive picture of the speech of children with Down's syndrome.

Down Syndrome: Down syndrome (DS), also called Trisomy 21, is a condition in which extra genetic material is the cause for delay in the way a child develops, both mentally and physically. Etiologically Down syndrome has three subtypes: mosaicism, translocation and standard trisonomy, which cause variation in their disability, this was,however, not taken into account in the present study. People with Down's syndrome tend to have physical problems, as well as intellectual disabilities. There are some physical features which are associated with individuals suffering from Down's syndrome that include dysmorphic facial features, congenital heart disease, short stature, thickened tongue with deep fissures, inner ear problems, immune system abnormalities, etc. If compared to normal milestones of physical and mental development, Down's syndrome causes delays in all areas of growth for babies born with this condition; the child takes longer to process information and learn new skills.

Stages of Child Language Acquisition: Child Language acquisition is considered to have five major developmental stages. The first stage is before the baby begins talking. It is called the crying or cooing stage as these are the sounds, along with a variety of others, that are made by the child. Babbling is the second stage where children produce what are called proto-words, this stage is also called the illocutionary stage (Steinberg, 1982). The third stage is the one word utterance stage or the holophrastic stage. This stage usually occurs around ten months to one year of age. In this stage one word will hold multiple meanings for a child, that is to say that one word will be used by the child for multiple situations. The next stage is the fourth stage which is known as the two-word utterance or telegraphic stage. This stage can occur from one and a half years to 2 years of age and is also called the telegraphic stage as the child tends to use only content words in their speech. The dozen or so ordinary utterances used by a child are used to convey complex ideas. The fifth and last stage is the morphemic transformation stage. It occurs from 4-5 years of age. Children acquire morphological knowledge in this stage.

Speech and Language in Children with Down Syndrome: Speech and language is a major problem for many people with Down's syndrome. Even those who tend to function sufficiently well in various other areas of their life seem to have difficulty in communicating with people who do not know them well (Bray, 2008).Early research into language and Down's syndrome concentrated on whether language

development in children with Down's syndrome was similar to that of a normal child; whether the language is acquired slowly or whether there is a deviation from the usual pattern (Jenkins, 1993). Lenneberg (1967), found no evidence to support the idea of deviation from the normal developmental course and this confirmed what he described as the 'stretched—normal' hypothesis (Jenkins, 1993). It is less clear from the research whether the understanding of language (verbal comprehension) is affected to the same extent as production (expressive language). A study by Miller (1988) seems to indicate that, on an average, production is more delayed than understanding, while Fowler (1990) suggests that both are affected equally.

Conversation Analysis (CA): Conversation Analysis is an approach to Discourse Analysis that studies the language used in conversations and other types of interactions. Conversation Analysis can be traced to Harvey Sacks (1992) from Harold Garfinkel's (1967) Ethnomethodology. Harvey Sacks, Emanuel Schegloff and Gail Jefferson developed it as an alternative approach to the established forms of studying sociological discourse. One of the major themes that developed in Conversation Analysis is sequential organization. It pertains to talk-in interactions. Briefly put, it refers to the idea that the action performed by a doing, such as an utterance, depends on its sequential position (Have, 1999). Conversation analysis theorists postulate talk to be structured and orderly where meaning occurs through sequencing patterns.

Method: The conversations were in Hindi and were transcribed from audio recordings. The recordings were transcribed, phonetically, and analysed using Conversation Analysis. Seven children were included for this study, their ages were between seven to sixteen years and I.Q varied from 40 to 65. The children were recorded having conversation with their teacher in their natural environment. These recordings were taken from Asha School, Lucknow. This school is dedicated to special education for the differently abled and it includes not only children who have Down's syndrome but also children with Autism Spectrum Disorder, Cerebral Palsy, Mental Retardation and Hearing Impairment. Tools of conversation analysis used for analysis include turn taking, opening and closing of conversation, adjacency pairs, back channel support and repair. Intersubjectivity, that is, the child's ability to understand and reply to the teacher was also analysed. Each extract was taken one by one and each turn then analysed using the tools above. Then, the stage of language acquisition of the child was determined.

Summary of analysis: The speech of seven children was transcribed and analysed as per transcription conventions of Conversation Analysis. The child and his/her teacher are the interactants in the conversation and they interchangeably become speaker and hearer. It was seen that the teacher was the one directing conversation and asking the children the questions, the children did not usually try and change the topic of conversation. The turn allocation in all the extracts is almost the same, the teacher and the student speak alternately everywhere except for places where the student does not understand what the teacher is asking him/her. In all the extracts the number of turns was almost the same for both the teacher and the student. The teacher only exceeded the students turns by one or two. In terms of turn length, the teacher and student differed greatly: in most conversations the teacher spoke in complete sentences; the same can be expected of normal children who are expected to be in the morphemic transformation stage of language development from five years of age. However, the subjects studied suffered from Down' syndrome and hence their turn length did not exceed five words.

If we consider the result of Fowler et al.'s study (1994), we can say that out study confirms what they are saying, that is, Down's syndrome children not only have stretched-normal development (as suggested by Lenneburg, 1967) but also the language development of an individual with Down's syndrome rarely develops beyond that of a two year old. Their turn length is not longer than two words other than one child who speaks up to five words. This suggests that their language development is that of a child who is one or two years old, that is, children who are in their holophrastic or telegraphic stage of language development.

Fowler et al. (1994) also made observations in their study saying that the structure of speech of individuals with Down's syndrome is usually simple, only containing content words and hardly any use of complex negation. This is also confirmed by our study. The children used single words to convey various meaning and when they used two or more words they tended to use only content words. Function words were mostly absent from their turns.

Intersubjectivity is not consistent throughout the extracts. For intersubjectivity to occur between the teacher and the student, the child is required to understand and share the meanings in the teacher's turns and vice-versa. Since the teacher is a normal adult with normal langauge development, the focus of intersubjectivity was on the children with Down's syndrome. Five out of seven students could not comprehend the open-ended question – 'what they did the previous day' – which required an abstract and complex answer. While asking the open-ended question, when the teacher also asked about the activity done on the previous day, the children found

it easier to answer, though they mostly stated one item (activity) at a time. Intersubjectivity occurs uniformly throughout the extracts when the teacher asked simple yes/ no questions. The children are also able to comprehend and answer when the teacher used one word (to signal that she is asking a question) along with prosodic or non-verbal communication to convey that she is asking the student a question. The children themselves used non-verbal communication (nodding and smiling) successfully to respond. The students were mostly able to follow adjacency pairs such as greeting-greeting and question-answer pairs. Greetings were probably understood and answered as it was part of routine or formulaic speech and so easy to respond to.

As suggested by Dodd and Thompson (2001), Down syndrome children tend to simplify their speech by deletion or substitution. All of the students simplify the word yes, they say '/hɑː/' or '/ɑː/' instead of nasalization used in '/hɑ̃ː/'. Out of four students who used the word '/rɔːtɪ/' three of them simplified the word by substituting '/r/'. Back channel support was seen being initiated by the teachers in four of the conversations. Repair mechanisms were also used when the teacher repeated the students reply while also correcting their pronunciation. There were also many pauses taken by these children with Down's syndrome after the teacher asked them a question, which is probably due to non-comprehension of the question, even though in one of the child's case we see that it was because he was thinking of the answer and his speech overlapped that of the teacher in the conversation. We also see brief inter-turn pauses; this is probably because they are thinking before producing the answer. The speech produced before and after a pause taken by the students does not change, so we know that they are not having problems in production but thinking about what to say. The present analysis is not exhaustive. The results are not generalizable and further research needs to be done on the speech and conversational ability of children with Down's syndrome. Further research can be done on the investigation of gender-specific speech of children with Down's syndrome.

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