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Pragmatics in Kannada Speaking Normal Children and Intellectual Disability

Dr. Satish Kumaraswamy¹, Abhilash T², Rakshitha S³ ^{1, 2}Dr. M.V. Shetty College of Speech and Hearing

Abstract: Human language is a unique mental entity. It is a system of symbols that greatly enhances the ability of humans to represent aspects of the world, to think and to communicate with each other. Studies from many diverse disciplines show that language has a complex structure and that its use involves many diverse interacting psychological operations (Caplan, 1992). Functional communication involving the language code helps us to accomplish specific goals, such as to inform others, relate to events not in our immediate physical environments, to reason, to update our knowledge of the world, to think privately and so on. Language is made up of socially shared rules that include what words mean. Components of the language are grouped under the 'form' (phonology, morphology, syntax) 'content' (semantics) and 'use' (pragmatics). The study highlights the need to carry out more research in this area for better understanding of language acquisition among these children in order to develop both assessment and intervention programmes. Presently, the lack of acquisition data has hinged the development of any standardized test in Kannada. Hence, the present study aims to explore Pragmatics in Kannada speaking children with the objective of analysing the data among these children across 4 to 6 years of age. The results suggest that all TD group have well developed pragmatic skills by 4 to 6 years and they are still acquiring some skills.

I. INTRODUCTION

Language is a unique quality that sets apart the human race from all other species. Language has allowed mankind to communicate and express ideas, which has had a major factor in our development over time. However, language does not merely consist of words and phrases.

Different types of expression are embedded in our language; most of which we use without even noticing. For any specific language, natural speakers will inherently know the uses and the rules for many types of expressions. These rules determine the interaction between people and between societies. This lesson will look at one aspect of those rules: pragmatics.

Pragmatics is a branch of linguistics, which is the study of language. Pragmatics focuses on conversational implicature, which is a process in which the speaker implies and a listener infers. Simply put, pragmatics studies language that is not directly spoken. Instead, the speaker hints at or suggests a meaning, and the listener assumes the correct intention. In a sense, pragmatics is seen as an understanding between people to obey certain rules of interaction. In everyday language, the meanings of words and phrases are constantly implied and not explicitly stated. In certain situations, words can have a certain meaning. You might think that words always have a specifically defined meaning, but that is not always the case. Pragmatics studies how words can be interpreted in different ways based on the situation.

Pragmatics, In linguistics and philosophy, the study of the use of natural language in communication; more generally, the study of the relations between languages and their users. It is sometimes defined in contrast with linguistic semantics, which can be described as the study of the rule systems that determine the literal meanings of linguistic expressions. <u>Pragmatics</u> is then the study of how both literal and non literal aspects of communicated linguistic meaning are determined by principles that refer to the physical or social <u>context</u> (broadly construed) in which language is used. Among these aspects are conversational and conventional "implicatures" (e.g., "John has three sons" conversationally implicates that John has no more than three sons; "He was poor but honest" conventionally implicates an unspecified contrast between poverty and honesty). Other aspects include <u>metaphor</u> and other tropes and speech acts.

II. METHODOLOGY

A. Aim and Objective

The study aims at profiling language in children with intellectual disability speaking Kannada (mental age 4 to 6 years). Analyzing the data at levels of language functioning – Pragmatics as compared to mental age matched typical children.



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B. Participants with Inclusive and Exclusive Criteria

Participants included 30 typical children (TD) in the age range of 4 to 6 years and 30 Children with Intellectual disability (CWID) (Mental age 4 to 6 years)

Typical children establishing profiles of TD was found necessary because of the need for comparison with CWID. Currently extensive developmental data in typical children speaking Kannada is not available. Moreover, establishment of norms based on free conversational samples is rare. Hence, a preliminary performance description of normal children in the age range of 4 to 6 years was considered essential.

All the children were suggested by teachers who identified the best suited for the study. Children with history of any speech and /or language deficits, any reading and /or writing problems, any history /complaint of acquired hearing loss, complaints of cognitive deficits such as poor memory, attention deficits, organizational and /or sequencing issues, any transfer from more than one school, any shift in the medium of instruction and any academic failures were excluded from the study. No formal language testing was administered due to lack of such tests in kannada language. Consent was obtained from the parents of children before data collection

C. Materials Used

Following the guidelines of LARSP (Crystal et.al., 1976 and 1989) and in subsequent Kannada language adaptation (Subbarao, 1995) on sample collection, a set of toys and pictures were selected. Toys and pictures used for sample collection are as shown below.

Toys and play materials-House building set, Toy, jeep, Ball, Toy Utensils, Coins, Travel bag set, Paper-Pencil

List of Pictures -City road, traffic, Village, life-1 City life, Village Life

Topics for elicited work at school, teachers, response from subjects, Games played with friends, Cinema, Television program, Favorite music, Favorite clothes, Family member.

D. Procedure

The study envisaged obtaining an audio & videotaped conversational sample with TD and CWID group. Thus, obtained sample was transcribed analyzed and profiled at predicate level. The overall guidelines provided by LARSP (Crystal et. al, 1976 and 1989) and suggestions provided by Subbarao (1995) on the same method in using with CWID speaking Kannada have been used for transcription and analysis of response patterns.

The guide lines provided by Shilpashree (2010) were followed for analysis of pragmatics data,

The recorded video samples of clinician-child and parent-child interaction was subjected to frequency calculations, frequency referred to the number of instances of initiation from mother and responses given by each child and self-initiations by each child for each pragmatic skill. The responses obtained from each child for pragmatics skills was grouped into two categories namely, response and no response.

- 1) *Response:* Contextually appropriate response (gesture and utterances) from the child that occurred to clinician /parent imitation of pragmatic skills.
- 2) No Response: Ignoring the question without answering responses out of topic will also be grouped in —No response category for ease of practical analysis for statistical purpose.

E. Analysis

Samples were a combination of conversations with the children and interactive sessions using toys and pictures. Free conversation was encouraged throughout the 30 minutes sessions with each child. The setting was within the familiar environment of the school. The researcher interacted with children before and to become familiar with each other. The first half of the session recording focused on free conversation, while the latter half involved discussions regarding the toys and pictures. The session was recorded using Sony video recorder (Model DCR-3R21E).

The Recorder was placed at a distance of three foot from the setting. A quiet room of the special school /school was used for recording. An additional note was taken to indicate accuracy of children's response to stimuli for later use in transcription. Thus, the obtained sample was transcribed, analyzed.

The overall guideline provided by LARSP (Crystal et.al., 1976 and 1989) was used for the transcription of the sample and analysis of response patterns. Suggestions and guidelines provided by an earlier study of language analysis in children with Intellectual disability speaking Kannada using LARSP (Subbarao, 1995) were adapted.



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F. Statistical Analysis

T' test was used to compare the means of two groups. Z test was used to determine whether two population means are different when the variances are known and the sample size is large, Man Whitney test was used to compare the differences. ANOVA followed by post hoc analysis was done using Bonferroni test. The results are expected to strengthen linguistic profiling of Kannada speaking children with the intellectual disability. Such profiling is expected to increase our understanding of disordered language in this group and also help in planning age appropriate remediation.

III. RESULTS AND DISCUSSIONS

Language delays and disorders amongst children have increasingly attracted attention of practicing Speech Language Pathologists in India. One group has consistently demanded attention is Children with Intellectual Disability (CWID). Language behavior of these children has become an important area of research particularly in the Indian context. There are reports of differences between mental age (MA) matched typical children (TD) and children with Intellectual disability (CWID). In fact, it is recognized that the extent of deviance is underestimated (Kiernan, 1985; Subbarao, 1995). The results of the present study also support these views. Although, there is an overall delay in acquiring language, there are differences among the MA matched TD and CWID children. These differences are most noticeable in syntactic aspects as compared to semantic aspects. This assertion further strengthens similar conclusions of Subbarao (1995) study.

As described in methodology section, all TD and CWID interacted during play to obtain a natural conversational language sample. The transcription of the language samples was subjected to detailed analysis. Initially quantitative analysis was done, followed by analysis of qualitative aspects.

IV. QUANTITATIVE ANALYSIS

The transcription of language sample was analyzed for the stimulus type and response categories. All the sentences were counted for Therapist (T) and Participants (P). The total numbers of the sentences were counted which yielded three quantitative measures like Total number of sentences, mean number of sentences per time and Mean sentence length; the present measures were compared for both groups of TD and CWID group. The group mean, standard deviation was calculated and significance between the means were calculated using _t' test for the unmatched pairs.

	N	Typical children No. present	%	Children with ID No. present	%	Testing proportions- Z value	P value	Significance (at .005 level)
Refusal	30	7	23	23	76	4.13	.000	HS
Communicative intent	30	23	76	10	33	3.37	.000	HS
Request or object and/ or action	30	2	6	16	53	3.94	.000	HS
Stylistic variation	30	20	66	8	26	3.11	.001	HS
Questioning	30	14	46	3	10	3.15	.001	HS
Initiation of turn taking	30	12	40	4	13	2.34	.010	Sig
Narration	30	30	100	11	36	5.27	.000	HS
Topic initiation	30	21	70	3	10	4.74	.000	HS
Initiation of topic maintenance	30	19	63	0	0	5.27	.000	HS
Topic change	30	8	26	14	46	1.61	.054	NS
Initiation of joint attention	30	25	83	1	3	6.25	.000	HS
Request for repair	30	8	26	0	0	3.04	.001	HS
Agent	30	30	100	27	90	1.78	.0380	NS

Shows the presence of Pragmatics in typical children and children with intellectual disability with statistical evidence

NS-No Significance, Sig-Significant, HS-Highly Significant



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It is clear from table that Narration (100%) was the skill which was used by all children of TD group. Communication Intent (77%), Stylistic Variation (67%), Topic maintenance (63%), Joint Attention (83%) were used by more children (i.e., more than 60% of the children). Refusal (23%), Request for object and / action (23%), Question (47%), Turn Taking (40%), Topic changing (27%), Request for Repair (27%), were used by the least number of children i.e., only two to four children used these skills. The results are in broad agreement with the study of Rohila (2015) who showed that the TD group of 4 to 6 years provided a rich evidence of pragmatic skills. All the children responded to eye contact, gaze exchange, joint attention skills along with turn taking skills.

Shilpashree (2010) also has supported these views. Over all TD group have well developed pragmatic skills by 4 to 6 years and they are still acquiring some skills. CWID group showed less developed skills. Skills like Refusal (77%), Request for object and /or action (53%), were the only skills used by more than 50% of the children, Communicative Intent (33%), Stylistic Variation (27%), Questioning (33%) Narration (37%), Topic Change (47%), Joint Attention (33%), were used by two to four children. Turn Taking (0), Topic Initiation (0%), Topic Maintenance (0%) and Request for Repair (0%) were not used by any children.

Shilpashree (2010) and Rohila (2015) have reported very poor development of pragmatic skills in Verbal Autistic children. Compared to Autistic children CWID have better developed pragmatic skills reflecting different set of deficit skills. When TD and CWID groups were compared it was observed that almost all skills significantly differ statistically, indicating that CWID group exhibited less presence of pragmatic skills as compared to TD group. Agent skill was shown in very similar (high) number of children in both the groups and was statistically not significant. Similarly, a very poorly acquired skill in both the groups – topic change, was also not significantly different. Over all, CWID group displayed the same pattern of pragmatic skills but to a statistically to less extent. It will be interesting to look into the nature of the relationship between syntax, semantics and pragmatics.

V. DISCUSSION

Studies from many diverse disciplines show that as language is a complex structure its use involves many diverse interacting psychological operations (Caplan, 1992). A majority of children acquire this complex system (Language) during their early years. It is generally accepted that interactionist approaches propagated in the late 70's (Bloom & Lahey, 1978; Carrow-Woolfolk & Lynch, 1982) explain language development better than any single theory. This integrated view point suggests that both maturation and behavior of society simultaneously influence and determine linguistics and communicative behavior.

In light of this approach, studying children for describing their linguistic communication in naturally occurring day to day interactions becomes important. It is well accepted that understanding of language and communicative development is an underlying force to enable effective language intervention in children with disability. One of the largest groups in India that require attention is children with Intellectual disability (CWID). The present study is focused on oral expression of the children and analyzing the resulting language output. Studies of language development have made some headway particularly in Kannada (Karanth, 1990; Subbarao, 1995 & Rohila, 2015). Pragmatic skills also represent comparable, but less developed language usage by CWID. Basic behaviors like agent are acquired easily with topic change being difficult. While cognitive resources could be a major factor it can be said that language teaching methods may not represent pragmatic learning focusing more on syntactic aspects.

VI. SUMMARY AND CONCLUSION

The present study is an extension of previous studies in language profiling of Kannada speaking children with intellectual disabilities (CWID). Most notably, Subbarao (1995) had obtained natural conversational samples of 4 to 6 years mental aged (MA) children with intellectual disability (CWID) and 4 to 6 years matched typical children (TD). The audio sample obtained thus was transcribed and subjected to analysis based on the overall general guidelines provided by LARSP (Crystal et. al, 1976 & 1989). The analyses were done at phonologic, syntactic and semantic levels. The present study included obtaining an audio and video recording and an additional analysis at pragmatic level. On pragmatic analysis CWID had difficulties in using skills related to usage of language in the context. Refusal and request for object and /or action were seen in 172 about 50% of children. Topic change was observed to be difficult for all children in the study. Children appeared to use few pragmatic skills but used them consistently

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