"A STUDY ON PRONOUNS IN MALAYALAM SPEAKING AUTISTIC CHILDREN"

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DEDICATED TO

MY ACHAN

I took my first faltered step holding your hand and I carry your principles in my heart

> "To walk in your footsteps Is the highest form of respect I can give you"

CERTIFICATE

This is to certify that this dissertation entitled "A STUDY ON PRONOUNS IN MALAYALAM SPEAKING AUTISTIC CHILDREN" is the bonafide work in part fulfilment for the second year M.Sc. (Speech and Hearing) of the student with Reg. No. M-9417.

Mysore

May 1996

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CERTIFICATE

This is to certify that this dissertation entitled **"A STUDY ON PRONOUNS IN MALAYALAM SPEAKING AUTISTIC CHILDREN"** has been prepared under my supervision and guidance.

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DECLARATION

I hereby declare that this dissertation entitled "A STUDY ON PRONOUNS IN MALAYALAM SPEAKING AUTISTIC CHILDREN" is the result of my own study under the guidance of Dr. SHYAMALA CHENGAPPA, Lecturer, Department of Speech Pathology, All India Institute of Speech and Hearing, Mysore and has not been submitted earlier at any University for any other Diploma or Degree.

Mysore

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INTRODUCTION

"Autistic children do have a fascination which lies partly in the feeling that some where there must be a key which will unlock hidden treasure. The skilled searcher will indeed find treasure ... but the currency will be every day and human, not fair gold. In return to your attention, those children may give us the key to human language, which is the key to humanity itself".

John Wring (1966)

"Autism" - Until recently the word itself was likely to be undefinable by the general public and large numbers of health care givers. Often misdiagnosed or not recognized at all, autism was permeated by an era of uncertainty, confusion and even mystery. Great strides have been made in recent years to provide new information about this behavioural disorder.

"Autism" was introduced into the adult psychiatric literature by Eugen Bleuler as an adjective to describe self-referential qualities of certain pathological thought processes. When introduced into the child psychiatric literature by Kanner (1943), it was also used as an adjective to characterize "autistic" disturbances of affective contact. During the 1940s and 1950s the adjective subtly metamorphosed into a noun, and "autism" became referred to in the literature as a disease, or specific illness. The common characteristics cited by Kanner were profound withdrawal, an obsessive desire for preseveration of sameness, a skillful and even affectionate relation to objects, an intelligent and pensive physiognomy and either mutism or the kind of language that does not serve interpersonal communication.

Rutter and Bartak (1971) stated that autistic children exhibited a central disorder of language involving both the comprehension of language and the use of language or conceptual skills in thinking. Mutism, echolalia, pronominal reversal, atypical vocabulary, morphosyntactic and pragmated errors are some of these. Hence it was suggested that these disorders constituted the basic handicap to which the other autistic behaviours were only secondary.

Kanner (1943) regarded what he referred to as 'pronominal reversal' as typical, almost pathognomonic of the condition. Earlier interpretations of this phenomenon have been tied in with the notion of autism as a condition of extreme social withdrawal. More recently autism is viewed as a disorder of development involving severe cognitive and linguistic deficits.

Despite these facts, there are only very few systematic studies conducted to investigate the speech and

- 2 -

language deficits in autistic children, especially the pronoun difficulties. Such studies in the Indian context are extremely few (Shyamala, 1989). The present study is aiming at investigating the use of pronouns in Malayalam speaking autistic children. An investigation into the origin of pronoun reversal is hoped to give us clues about its origin in autism, and may shed some light on the semantic and or pragmatic disturbances underlying autism. This in turn is hoped to contribute to management of autistic child.

REVIEW OF LITERATURE

Definition:

Autism is a severely incapacitating life-long developmental disability that typically appears during the first three years of life. The result of neurological disorder that affects functioning of the brain, autism and its behavioural symptoms occur in approximately 15 of out every 10,000 births. Autism is four times more common in boys than girls. It has been found throughout the world in families of all racial, ethnic and social backgrounds. No known factors in the psychological environment of **a** child have been shown to cause autism.

- Autism Society of America (1977)

General characteristics

Problems in social relatedness, insistence on perseveration of sameness and severe limitations in language and communication were the three cardinal features of the autistic syndrome as originally described by Kanner (1943). These symptom complex identified by Kanner is extremely significant and highly valid even today.

Primarily autism is identified by behavioural manifestations which can be categorised as:

- a. Deficit or impairment in social behaviour
- b. Impairment of speech and language
- c. Demand for "sameness" in the environment
- d. Disturbances of sensory input
- e. Disturbances of motility

(Rutter, 1978)

a. Deficits or impairment in social behaviour

Deficits or difficulty in developing and maintaining interpersonal relationships is the primary impairment in autism. Several studies (Wolf and Chess, 1964; Hutt and Vaizey, 1966; Sorosky <u>et al</u>., 1968; Wing, 1969; Churchill and Bryson, 1972; Bartak <u>et al</u>., 1975) have shown that autistic children's social development has a number of distinctive features. The relationship of the child to the world around him and his being penned up in an inner life which Kanner terms 'extreme autistic solitude' which in his opinion originates from an emotional disturbance.

Deviant patterns of reciprocal gaze and eye content are among the most striking manifestation of the autistic social dysfunction (Rutter, Schopler, 1987). Volkmar (1987) reported that eventhough patterns of gaze deviance in autism change over the course of development, even the highest functioning autistic individuals typically exhibit gaze avoidance and or a failure to use gaze in regulation of social interaction.

For the younger autistic child, the human face seems to hold little specific meaning (Volkmar, 1987). Tim Langdell (1978) reported that in contrast to normals who consider eye area as an important source of meaning in facial expression, the younger autistic children tend to pay more attention to the lower half of the face.

In the words of an autistic girl

"I know people talk with their eyes, but I don't know what they are saying". Research has demonstrated that autistic children rarely show behaviours indicative of shared attention and inter-subjectivity. Kanner (1943)initially recognized a social and emotional deficits in autism and proposed that the autistic individuals, "have come into the world with innate inability to form the usual biologically provided affective contact with people". Autistic children tend to smile less often and lack the COY of self conscious and affect expressed by other children in studies employing the self recognition paradigm (Dawson and McKissick, 1984). Yirmiya, N., Sigman, M. and Mundy, R. (1989) suggested that autistic individuals display fewer facial and gestural expression of emotion especially expressions of the affect. The expressions of autistic

children are idiosyneratic and therefore less readable by other individuals. Several authors (De Myer et al., 1972; 1978; Hammer and Langdell, 1981) Rutter, reported an impaired development in social imitation in autistic which may be related to their deficient use of symbolic play and social communication. They also have an inability to engage in interactive or cooperative play where there is mutual turntaking from very early infancy. Prelinguistic behaviour such as pointing, showing or taking turns are normally not present (Bartak and Rutter, 1975). In short, autistic individuals suffer typically from marked deficits in their capacity to engage in reciprocal social interaction.

b. Impairment of speech and language

The language of the autistic children ordinarily is severally delayed, and in many cases, language do not develop at all. Even if language develops it is often characterised as rigid and stereotyped being marked by scholalia, atypical vocabulary, pronominal reversals, etc.

c. Demand for sameness in the environment

These children show marked resistance to any kind of change in their immediate environment. He does not understand the significance of any change and so insists often very emotionally, that the environment return to its original and presumably safer condition. They are very sensitive to specific arrangements of objects, furniture and even the people around, and become extremely distressed as a consequence to any change.

d. Disturbances of sensory input

Many of the autistic children are very frequently mistaken for being deaf or blind because of their lack of response to auditory or visual stimuli. Generally you could see hyposensitivity where the loudest of sound may not evoke any response from the child. There are reports where thev may not see danger in terms of big vehicles approaching them. They might be totally oblivious to that. There could also be hyper/over sensitivity, to the auditory or visual stimuli which is highly selective in nature. Eq. certain children do not respond to vehicle horns, but there could be an immediate response to something life soft music, foot steps, etc. which is total contrast to the hyposensitivity to highly intense sounds. There would also be stimulus over selectivity where there is a very narrow limited aspect of the available information gaining a heightened reaction.

e. Disturbances of motility

Though these children are usually normal in motor development, they do show abnormalities of movement and

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posture in terms of stereotyped repetitive movements of body parts. At the gross level they could have jumping, clapping, flopping of hands, shaking of head, etc., and at the finer level they could have twitching of fingers, shaking of certain parts of the body such as lip twitching or very frequent extension of the tongue. These movements serve no other function and these self are the stimulatory behaviours. Along with this they may also exhibit self injurious behaviours such as banging head aqainst hard their surface, hitting themselves, biting body own parts, etc.

child is usually exceptionally healthy The and attractive, quite often precocious and alert in appearance. Kanner emphasizes that the children simply do not look retarded. They appear always to be concentrating on something coupled with the elaborate insistance that no change take place in the movement, extraordinary memory, seems almost the rule with these children. Astonishing musical ability is found in these children, quite frequently in some cases accompanied by perfect pitch (Kanner, 1943; Scheerer, Rothmann and Goldstein, 1945). Despite these signs of what Kanner calls "good cognitive potential", many autistic children do eventually become institutionalised as mentally deficient.

Assessment and diagnosis

Assessment

The very nature of the autistic child, who by definition is limited in attention, response and interest in language and communication presents formidable obstacles to any diagnostician. It is primarily diagnosed based on the behaviours which according to DSM-IIIR should be manifested before the age of 36 months.

Assessment and rehabilitation is a team work with paediatrician, neuropaediatrician, psychiatrist, psychologist and speech language pathologist. Each infant has to be assessed on the basis of the history, physical and developmental examination.

Behavioural assessment

Behavioural components are identified by parental reports, direct observation and behaviour checklists.

The history defines the parental concern about the child, it delineates how the child differs from the siblings or other children of comparable age. It gives valuable information about child's development, his social interaction, communication, play interests, daily habits, self control. With autistic children, responsibility for determining capacity and potential rests with the examiner. Therefore, the evaluation is mainly through observation.

А behaviour-rating instrument for evaluating autistic children BRIAC (Ruttenberg, B.A., Wolf, E.G., 1967) is found useful in the areas of relationship, communication, vocalization and expressive speech. This profile can be used to compare children, to measure change, and to suggest the next level of stimulation required. A few other assessment tools being currently used include: Autism screening instrument for educational planning (Krug et al., 1980). Individual assessment and treatment for autistic and developmental disabled children or psycho-educational profile (Schopler and Reichler, 1979), autism checklist (Anita M. Reily).

Psychometric assessment

Psychometric assessment reveals the functions like perception, cognition and speech. Tests of early mental development assess locomotor development, personal social adjustment, hearing and speech, hand and eye coordination and performance. Alpern (1967) used a modified infant test for young autists because of the low social and cognitive levels and extreme attentional disorder.

Assessment of communication

A clear description of communicative means and combinations of means is the primary structural data that will be used in identifying acts that may function communicatively or cognitively for a child. The actual signals used by the child should be described as to whether they are nonverbal (gestures, gaze), verbal (use of words, signs) or vocal. Furthermore any combination of verbal, vocal or gestural should be identified. Specific information should also be included as to the complexity and content of verbal acts, the quality and nature of vocalizations (vowel like vocalizations, consonant like verbalizations) and types of gestures (pointing, open or closed reaching, extending object from body, etc.). Tests like pea body picture vocabulary test. Illinois test of psycholinguistic abilities are used to assess the verbal skills.

Diagnosis

In international collaboration, experts have agreat the use of certain behavioural criteria for diagnosis of autism. The most detailed and recent scheme is the one described in DSM-IIIR of the American Psychiatric Association. A very similar diagnostic scheme is available in the international classification of disease (ICD-10) issued by the World Health Organisation. The essential criteria are specified as,

- * Qualitative impairment in reciprocal social interaction
- * Quantitative impairment in verbal and nonverbal communication and in imaginative activity
- * Markedly restricted repetoric of activities and interests.

Speech and language characteristics

Autistic children have peculiar problems of speech and language and this has attracted the attention of linguists and psychologists alike. As a result there is now an impressive number of investigations. All the specific problems related to language use are formulated by Rutter and Schopler in their 1987 update. According to this the defining features of autism are as follows:

1. Delay or total lack of the development of spoken language, not compensated for by gesture or unuse

2. Failure to respond to the communication of others

3. Relative failure to initiate or sustain conversational interchange

- 4. Stereotyped and repetitive use of language
- 5. Use of 'you' when 'I' is meant
- 6. Idiosyncratic use of words

- 7. Abnormalities of prosody
- 8. Semantic/conceptual difficulties
- 9. Abnormalities of non-verbal communication.

Aspects of speech

a. Delay of spoken language

Achieving full control of the mechanics of speech production is not precluded by autism. How is it then that a large proportion of autistic children never speak at all ? The proportion of non-speaking children has not yet been reliably estimated. But a recent Canadian study showed that the incidence is strongly related to the presence of severe mental handicap (Bryson, Clark and Smith, 1988).

Muteness or mutism includes a range of behaviour from total silence to the emission of inarticulate vocalizations bearing little resemblance to human speech.

Ιf the autistic child hears, does he babble ? Rutter, Bartak and Newman (1971) in a study of the autistic children, noted that the parents reported either diminition in amount or duration in the quality of babble in about half the children. Ricks (1975) reported that the parents he interviewed recalled no normal conversational babble in their autistic children's first year. However, Ricks did record vocalization of some babbling autistic children ages

3 to 5 years. He observed that their babble was monotonous somewhat similar to normal child falling asleep. Ricks also found that whereas normal babies and preverbal babies with Down's syndrome paid little attention to their own babble recorded and played back to them, autistic children behaved differently. If the autistic child responded, he did so by precisely imitating his own vocalizations. However autistic children ignored recordings of other autistic children and taped imitations of their own babble made by a normal child. Sedlakova, E. and Nesnidalova, R. (1975) reported that in 2/3rd of the autistic children investigated speech developed late, the first words being uttered between the ages of 2 and 5 and the first sentence between 2 and 6.

In short, quantity and quality of babbling may effect a cause or effect relationship to the period of extended muteness.

b. Voice quality and intonation

The voice quality, that is the permanent background vocal invariable of the autistic child has been recognized as "bizarre" for as long as the symptom has been recognized. frequently noted vocal characteristic is One that of consistent high pitch, often described as "bird-like". Detailed investigations (Goldfarb, Braumtein and Lorge, 1956; Pronovost Wakstein, 1966) and have reported excessively high pitch levels with insufficient pitch changes. Pronovost and his associates analysed a child's high pitched vocalization and noted a fundamental frequency of 2500 Hz.

Other vocal idiosyncracies that have been noted include hoarseness, harshness, and hypernasality (Pronovost <u>et al</u>., 1966). Again it has been noted that loudness levels fluctuate as reflected by whispering, muttering and occassional loud ejaculations (Goldfarb et al., 1956).

Among the intonational peculiarities attributable to autism, monotony seems to be most widely recognized. The literature abounds with such description as "mechanical", "hollow", "dull", "wooden", "arythmic" and so on. In apparent contrast to this large group are those who reportedly speak in a sing-song manner. These more melodic children may be those to whom musical abilities are often attributed.

c. Articulation

One of the most striking features is the relative high quality of articulation as contrasted with other verbal abilities. But some of these children do make articulation errors. However, as a group they do not seem to deviate markedly from the developmental patterns of non-autistic.

In their study on the development of autistic children with special regard to their means of verbal expression Sedlakova and Nesnidalova (1975) reported the following.

Disorder of articulation is manifested more markedly at an early age than in adolescence, but it is never regular and systematic. On the other hand, some children articulated very precisely to the point of exaggeration. In some cases, dyslalia, i.e., disorders in articulation connected with the development of speech sounds combined with the logical development of distinctive features is observed such as those found in the development of speech in physically healthy children. Changes in articulation which do not follow the rules for the development of speech sounds and cannot be explained from a developmental point of view and thus are quite illogical, are also observed. For instance, there is a striking emphasis on some phonological features, various modifications and deformation of speech sounds, increased nasality in unusual places, unusual substitutions of sounds, bizarre articulation mechanism, etc.

Aspects of language

a. Echolalia

Most typically, autistic children begin to speak by repeating utterances spoken to them in an immediate or delayed manner (Ricks and Wing, 1975) and often with limited evidence of comprehension or even communicative intent (Prizant, 1983).

Types of echolalia

i. Immediate echolalia: It refers to expetitions that are produced either following immediately or a brief time after the production of a model utterance. The immediate comnunicative echolalia is at the level of signal behaviour and seldom reflects linguistic processing beyond the simple interpretation of a label. Fay (1967, 1969); Fay and Butler (1968) reported that echolalia rarely occurs in conjunction with message comprehension. Although understanding of individual components of triggering stimulus may be demonstrated, the message has failed to register if the echo is forthcoming. Therefore an echoer's capabilities to process language may be more likely revealed by the stimuli be does not echo. Thus comprehension difficulties leading to an echo reaction may encompass problems involving many levels of cognitive and linguistic interaction.

ii. Delayed echolalia: Delayed echolalia is the repetition of stored, usually echoic, utterances in new and usually inappropriate contexts. Delayed echoing is often viewed as a sign of processing an internalized, albeit, The delay in production rigid nodel. from time of registration suggests at least the fidelity of long term verbal storage and retrieval. However, unusual associations these children make between the word and random aspects of

the original context are often reflected in the irrelevant context in which the phrase is later produced. Roberts and Fish (1970) suggested that the examiner and the child seem to be attending to 'different relevancies' as demonstrated by a child who responded to his mother's farewell by saying good-bye five minutes after her departure. A similar behaviour can be observed among reading autistics who repeat seemingly without provocation, roadside messages, advertisements from the telephone book's yellow pages and so on. Delayed echoes can be and are used as a communicative device by some children who associate a phrase and situation instrumentally and then "recreate" the forward situation by repeating the stored verbal signal. Furneaux (1966) wrote of an autistic girl who asked "Do you want to go in the garden ?" as an indication of her immediate desires to do so. These communicative efforts together with instances of "metaphorical language" seem to be a product of children's typically excellent associative memory linking sound pattern to condition or object. Only when the behaviour is seen consistently, you can attribute communication to these. Studies have shown that these children may use linguistic strategies only minimally employed by normal children. Although the immediate and delayed echolalia share a few common features, they differ in several important respects. In terms of language function both seem to operate on a very low level of repetition without much or any comprehension. In terms of communicative intent and the ability to signal such intentions, delayed echolalia offers greater potential eventhough much of it seems totally void of communicative efforts.

iii. Mitigated echolalia: A variation of echolalia in which language clearly does intervene is mitigated echolalia. The term was introduced by Pick (1924), to describe the slight modifications he noted in the echolalia of some of the aphasic patients. He interpreted mitigation indication of the echoer's conflict between the as an compulsion to imitate and the breaking through of the power of gradually returning voluntary speech. Stengel (1947)noted two characteristic modifications: (i) introducing the first person singular into the repeated utterance, and (ii) appending an intelligent response to an echoed question or order.

Eg: I guess you are -> I guess I'm are.

At some point mitigated echolalia graduated into plagiarism, echo answer or spontaneous speech and in the process leaves its major echoic component behind. Mitigation was interpreted as evidence of the gradual convergence of the audiovocal system with an improving syntactic semantic system.

b. Vocabulary

Autistic children seem to have patchy verv vocabulary acquisition; in matters that evoke their interests they may rapidly acquire a set of technical terms (names of different colours, shapes, flowers, etc.). However at the same time they may lack words for very common concepts. The study of semantic abilities can be approached from the point of view of categorization skills (Tager-Flusberg, 1985). The ability to classify objects and verbs has been consistently found to be mental age appropriate for autistic children.

c. Morphosyntactic and pragmatic errors

Bartak, Rutter and Cox (1975) and Cantwell, Baker and Rutter (1978) reported from their important investigations of high ability autistic children and language disordered non-autistic children that there was relatively high competence on morphological rules and on a wide range of sentence types. The understanding of active and passive sentences (Paul, Dykens, Leckman, Watson, Breg and Cohen, 1982), the comprehension and production of many different grammatical forms including word order, past tense and negation (Tager-Flusberg, 1989) are all within the capacity autistic children. Investigation of fluent autistic of

readers by Frith and Showling (1983) have shown that the autistic children tended to substitute a missing word of the correct syntactic class rather than of the wrong class. Tager-Flusberg (1981) has shown that the autistic children were less influenced by high probabilities of events which are normally taken into account when we listen to speech and work out its content. For eg: It is easy to understand that 'the girl is holding the baby' but harder to understand that 'the baby is holding the girl'. This difference in case of comprehension is less pronounced in autistic children. Kanner (1946), Tubbs (1966) and Prior (1977) have reported that autistic children have considerable difficulty in identifying word combinations, i.e., in comprehending relationships between agents, actions and objects. McNeill (1966) has reported that at the telegraphic stage most frequent sentence patterns are verb-noun and verb noun-noun from which the subjects are missing.

Several researchers (Ball, 1978; Baltare and Simmons, 1983) reported deficits in the use of rules for dyadic conversation, the management of topic-content relation and the use of other rules for governing the speaker-hearer relationships. Pilot studies of conversational skills in autistic individuals (Paul and Feldman, 1984) suggested that one aspect of the pragmatic difficulties seen in autistic individuals is an inability to infer what information the interlocutor has in mind. Most verbal autistics do not

demonstrate usage of langauge to satisfy their needs (instrumental function) to exert control over the behaviour of others (regulatory function) or to share information with a communicative partner (informative function). They also show difficulties in understanding of relations and activities, while the substantive and denominative functions appear to be better developed.

From the wide ranging array of studies on production and reception of grammar reviewed by Tager-Flusberg (1989) we obtain a consistent answer: far from being specific problem areas, grammar and phonology can be remarkably intact in autistic children, possibly representing islets of ability.

d. Use of pronouns

"Every human language has a stock, of elements that shift their denotations depending on elementary features of the speech situation. That is every language has deictic elements ... Among the deictic elements of every human langauge is one that denotes the speaker and one that denotes the addressee. The first and the second person pronouns are universal"

Hockett (1963) (List of 10 grammatical universals)

Non-autistic pronominal development

Boyed (1914) stated that "the diminishing 'I' and the growing use of other pronouns, especially 'we' and 'you', is a significant revealation of the process by which the self centered child is transformed into a social being. Pronominal errors were noted in the literature at least as early as 1908 in the normal children (Cooley, 1908). Several reported that normal children case studies have make pronominal errors in the course of acquisition (Cooley, 1908; Bain, 1936; R. Clark, 1974; E. Clark, 1978; Chiat, 1982; Schiff-Mayers, 1983; Macnamara, 1986; Oshima-Takane,. 1991). However, only a small proportion of them exhibit such errors suggesting that pronominal errors are not a common phenomenon among normal children (Sharpless, 1974; Straver, 1977; Charney, 1980; Chiat, 1981; Oshima Takane, 1985).

Bloom, Lightbown and Hood (1975) reported that normally developing children use correct first and second pronouns given an mean length of utterance of 2.5. Silberg (1978) found that normal children use 'my', 'mine' and the 'I' consistently before 'you' and that 'he' and 'she' are acquired last. Moerk (1977) and Clark (1978) observed that normally developing children use 'me' before 'I'. 'I' appears initially in imitated or 'formula' phrases such as 'I can do it !' or 'I want it !'.

Charney (1980) examined the understanding and production of first and second person pronouns in 18 - 30months old normally developing children. She found that young normal children used 'my' correctly to refer to self at a very early stage but did not understand its use by others to refer to themselves. Similarly, the children only understand 'your' as applying to them when they were addressed, not its use to apply to other people. Inspite of the difficulties with shifting pronoun reference and the differentiation of the pronoun from its context, the normally developing children in this study did not 'reverse' pronouns.

Somewhat different findings were obtained by Clark (1978). She studied the acquisition of the 'I'/'you' person deictic contrast in normally developing two year old. She found three stages in the acquisition of this contrast. In the first stage, 'I' is used without a contrasting pronoun, then (for some children only) is a stage when both 'I' and 'you' are used but with the wrong contrast, i.e., there is pronoun reversal. The final stage is the correct deictic contrast. Only a few children show the second stage of 'pronoun reversal' and most studies report that this seldom occurs (Shipley and Shipley, 1969; Charney, 1980; Chiat, 1982).

These findings were questioned by Chiat. Chiat (1986) concluded that normally developing children have no difficulty with the shifting reference of pronouns and do not normally adopt the hypothesis that 'pronouns equals name' as a stage in their understanding of the pronominal system. A summary on the order of acquisition of personal pronouns are also given. First person singular (I, me, my, mine) occur first (but not necessarily as or differentiated unit) along with inanimate third person (it); second person (you, your, yours) follows. The order of acquisition of the remaining pronouns appear to be variable.

A note on pronouns in Malayalam

Pronouns in Malayalam are grouped into first, second, third person and interrogative pronouns (Syamala Kumari, 1995) as in the categorization in English. The third person pronouns in Malayalam belong to the demonstrative class. But the use of these vary widely from English.

There has been systematic study in no the development of pronouns in Malayalam. However, children begin to use pronouns by the age of two, and if at all used earlier only of the first person pronouns. In Malayalam the second and third person pronouns are seldom used. То indicate intimacy, respect, and formality the native speakers of Malayalam try to avoid the second person pronoun

and instead use the kinship or address term itself. In some context, instead of the third person pronoun to indicate respect they use kinship or address term. Hence these pronouns are often absent in the speech of the young children.

First person

กระท	singular
૫૦૭૦૦	plural exclusive to the speakers
nomal	inclusive plural (speaker and hearer)
Na:m	honorofic

Second person

xi:	singular
ţa:n	singular indicating intimacy
nsysł	singular with respect/plural
ta: ŋgal	only with respect
avidunna aga gambuta:n gtrume:ns	though come under the class of pronouns, these are seldom used. In the present day these find usage only in dramatics

Third person (Demonstrative pronouns)

Ivan	3032	masculine singular
Indi	anat	feminine singular
1194	Prod	plural
IV2	avz	inanimate objects plural
193	adz	inanimate objects singular
Id S.ha	m aðs:ham	only with respect
£j∂:₽	aja: Q	refer to persons but without respect

Interrogative pronouns

a: Y2	personal interrogative
5:43	adjectival interrogative
Ente	noun interrogative
etra	quantity
EVEdE	location
2.9222	manner
٤p >: l	time

Explanations for pronominal errors

a. Teaching strategies

The use of proper names by children probably 'reflects the teaching strategies they are exposed to. Because of problems in correct assignment of pronouns, many adults use proper names, both to refer to the child and in self-reference while talking to the child. This is also a strategy used by many people in talking to young normally developing children (Weir, 1962), except that it is often the parent who will therefore use a parental name (i.e. mummy or daddy) in self-reference. Some normally developing children also cope with the problems of shifting reference by use of these proper names but the fact remains that they do not wait for resolution of the speaker principles before correctly using the first person pronoun.

b. Psychosocial disorder

The infrequency of pronominal errors in normal children has led some investigators and pathologists to view this phenomenon as a reflection of psychosocial disorders: the inability to distinguish the 'self from 'other' (Bettelheim, 1967; Bosch, 1970; Charney, 1980).

c. Echolalia or imitation

Some authors (Bartak and Rutter, 1974; Simon, 1975) view pronominal errors as a result of echolalia or simple imitation, which, in turn reflects a lack of comprehension. Children repeat what they hear without analyzing its internal structure. As a result, they make pronominal errors. Thus pronouns in such utterances do not function as differentiated meaningful units.

d. Semantic confusion

Clark (1978) and Oshima-Takane (1989) suggested that phenomenon of pronominal errors are associated with psycholinguistic problems and they reflect semantic confusion. Clark proposed that children who make errors may develop an incorrect hypothesis that pronouns are type of name. They treat pronouns as non-shifting terms such as proper names and therefore make pronominal errors. Oshima-

Takane gives an alternate view and argues that a major difficulty in learning personal pronouns comes from the fact that the model for correct usage of these pronouns is not directly provided in speech addressed to children. That is, when a mother speaks to a child, she uses 'I' or 'me' to refer to herself and you to refer to the child. But when the child speaks, the child must reverse the pronouns. Therefore, children who fail to observe how pronouns are used in speech addressed to another person, or those with limited opportunities to do so, are more likely to make incorrect generalizations about the meaning of these pronouns.

e. Person hypothesis

Charney (1980) proposed that a child who reverses pronouns has "person-referring" pronouns. That is, the child's pronouns refer to specific individuals in contrast to the pronouns which refer to speech roles.

f. The semantic complexity hypothesis

Children's pronoun development can be explained in terms of the semantic complexity of pronouns (Deutsch, 1978). According to the semantic analysis advanced by this theory, the order of complexity is first person, followed by second person, followed by third person and the order of emergence should be the same.

g. Processing complexity hypothesis

Dale and Thoreson (1992) suggested that deictic shifting presents a substantial processing load throughout the period of development. It is at risk ir. certain contexts: semantically reversible predicates with two noun phrase, eg. I'wll help you, and in imitations. In the former the complexity of the sentence may tax the processing system and the presence of the pronouns in the immediate memory may be so salient as to preclude shifting. Thus while semantic confusion may be part of the explanation for pronoun reversal, discourse factors are also important.

Autistic pronouns and deixis

Language, stress, communicative intent, non-verbal communication and cognition - all likely areas of autistic weakness - converge in an apparent conspiracy against pronominal resolution. Kanner (1943) regarded what he referred to as 'pronominal reversal' as typical, almost pathognomonic, of the condition. The issue of pronominal reversal has been one of the central pillars of the debate on whether autism is a social behavioural or cognitive linguistic deficit.

Social behavioural deficit

Earlier interpretations of the phenomenon of pronominal reversal including that of Kanner himself and

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others such as Arieti and Freud have been tied in with the notion of autism as a condition of extreme social withdrawal. Arieti, for instance, explained that the autist refers to 'you' rather than 'I' because of refusal to incorporate feelings about himself which come from others.

Freud equated the personal pronoun 'I' with ego. Failure of the autistic child to utilize 'I' according to Freud is either denial or unawareness of selfhood, while use of the word 'you' indicates awareness of selfhood in others. Interestingly, the autistic child, according to Freud may come to use both 'I' and 'my' with a symbolic person who does not induce anxiety but resorts to psychic distance in the presence of antagonists. Rimland (1964) also supported Freud and proposed deficient ego in the autistic child as an explanation for the pronominal difficulties.

Bettelheim (1967) and Bosch (1970) assumed that there was deliberate avoidance of the use 'I' of and attached much significance to it within a psychodynamic interpretation of autism. According to them, "it is not easy to talk constantly in opposites, to do quite well in getting across wanted, and never make the mistake of using pronoun correctly". Those who view childhood autism as a form of psychopathology see pronominal difficulties as a result of confusion of personal identity and its consequential psychic defense mechanisms. Bettelheim's observations were challenged by Cunninghan (1968) who found no greater avoidance among his psychotic group than among his equally retarded non-psychotic group.

But considering the grammatical challenge of personal pronouns, it is clear that pronominal learning is a complex and very difficult undertaking even if the self becomes identified as separate. The problem seems to be defined by attentional and deictic limitations in the realm of encounter with others. The net result is major difficulties with language, in general, together with a host of behaviours that Hermelin and O'Conner (1970) have termed 'social obliviousness'.

Burner (1975) found that the autistic child lack the intonational qualities in his babble - if he babbles - and in his later echoing and speaking efforts. Hence he suggests that the problem of "reversed" pronouns is only a symptom and perhaps pathognomonic of more complex difficulties with interpersonal and attentional behaviours of infancy.

Love-land and Landy (1988) also studied the communication behaviour and a correlation was found between correct pronoun use and the degree of joint attention behaviour. This relationship suggests that autistic children's difficulties in pronoun use are not specific but have the same root as their other difficulties in social interaction. This root could well be a poor conceptualisation of their own and others mental state.

Cognitive linguistic disorder

The more recent past has witnessed a move from being autism as a condition involving social and emotional withdrawal to a view of autism as a disorder of development involving severe cognitive and linguistic deficits.

Fay (1971) suggests that it is unfortunate that the terminology 'pronominal reversal' is now widely accepted to specify the behaviour. Rather than deliberately exchanging pronouns as the terminology implies, the children actually do nothing but repeat what they hear. The problem is one of inaction rather than commission and reflects their inability to cope with shifting reference of person dexis. Bartak and Rutter (1974) also criticized the ego based approach because of its failure to recognize the language component in general and the echoic etiology of pronominal 'reversal' in particular.

Studies on elicited imitation conducted by Menyuk (1969) and Menyuk and Looney (1972) have shown that children will not repeat beyond their own grammatical competence.

Bosch (1970) also did extensive studies and found that there is delayed appearance of 'I'.

Later, Bartak and Rutter (1974) demonstrated that there was infact no 'avoidance' of the pronoun 'I'. The children only appeared to avoid 'I' in their speech because of their tendency to echo stressed words and the end of phrases. 'I' usually occurs unstressed and in the initial position in utterances. When the two factors were controlled experimentally 'I' was not 'avoided' in echoed utterances. They concluded that the tendency to echo alone can explain the use of 'you' in self reference. For instance, the echoed query 'Do you want a drink ?' is used by the autistic child as a request for a drink. This is inconsistent with the notion of pronominal reversal, at least for the one way reversal of 'you' for 'me'.

same year Albers and Bartolucci (1974) In the reported a pilot study with autistic children on an aspect of deixis, specifically the inflection-ed. They had taken autistics, mentally retarded and normal children. The normal children proved to be 80% correct and mentally retarded were 60%. The autistic children gave correct responses 8% of the time. The investigators interpreted these results to mean that a problem for autistic children existed at the level of the relationship between the morphological and semantic aspects of language in the past tense.

Bartak, Rutter and Cox (1975) also observed that the autistic child's biggest problem is with words describing relationships rather than with labels of concrete objects or events.

Clark (1977) and Curcio (1978) were of the opinion that the autistic child's difficulties in coding deixis are due to undeveloped or under developed gestural behaviour. These children have particular difficulty in 'protodeclarative pointing'. This problems with gestural deixis may well be a precursor of later problems in linguistic deixis. Difficulty with personal pronouns may simply be the most salient example of a more general deficit.

Silber (1978) analysed the speech of autistic children and found that the sequence of development of pronouns in autistic children parallelled that of normal development, in that 'I' was used most, then 'you' and finally 'he'. However, mean length of utterance was a crucial measure in dividing the group into those who showed a cluster of errors (including pronoun reversals, use of neutral pronouns, use of proper names and echolalia) and those with very few errors and no use of proper names or echolalia. She found that the first person pronoun was produced correctly by her autistic subjects as long as they had a mean length of utterance above three, but that the second person pronoun did not appear that until a mean length of utterance of 4. This represents a marked lag in autistic children in the production of personal pronouns relative to MLU.

Fay (1980) has demonstrated that when echolalia occurs as a part of normal language development the echoed phrase shows a typical pattern of mitigation of deictic terms. Example of such mitigation, shown by Fay, were speaker-addressee pronouns and the demonstratives 'this' and 'that' which were transposed to give the appropriate reference; eg. "Do you want a drink ?" would be echoed as "Do I want a drink ?". This changes the question from one of why 'I' is apparently avoided to one of why it is that autistic children unmitigated production of personal pronouns in their echoed utterances.

Charney (1980) has also discussed the difficulties reported for autistic children, with first and second person pronoun production, in the light of her work with normally developing children.

Rees (1984) has reviewed the evidence for a general production with deixis in autistic children and finds there is evidence of difficulty over a range of deictic contrasts.

Recently, Jordan (1989) compared 11 autistic children to normally developing and mentally handicapped

children, matched by receptive vocabulary age, on their understanding and the use of the personal pronouns 'you' and 'me'. There were no significant differences between the groups in their comprehension of these terms, where the terms could be understood simply as referential labels. There was, however, a marked difference in the production of 'me' and 'you'. The autistic children showed no 'pronoun reversal'. Instead, they used in correct case pronouns of proper names for self or other reference.

Indian studies

There has been very few Indian studies carried out in the autistic population.

Shyamala (1989) conducted a detailed study of speech and language characteristics in a cross linguistic autistic group. First, second and third person pronominal forms were very rarely seen in these children's speech except as echolalia or perseveratory utterances. It was also observed that there was a reversal in the pronouns use. However, the PNG markers were found correctly used occassionally.

Karanth (1989) in the same year, based on her observation on childhood schizophrenics, normal children and autistic children, claimed that the pronominal reversal seen in autism is the symptom of an underlying cognitivelinguistic disorder as against that of a social-behavioural disorder.

Except for the above two studies, focussed study of pronominalization/deixis in autistic language is conspicuous for its absence. Hence the present study.

Need for the study

Autism is a confusing disorder because it presents itself in unique ways in each affected individual. It has taken decades for the professionals to recognize and begin to understand the nature of autism.

Difficulties in the use of first and second person pronouns are well established as a feature of those autistic children who develop speech. Despite this abnormality in the speech of autistic children, there has been little systematic study of its nature. There are studies of thin nature in the recent past reported in western literature. Such studies in the Indian context are yet to take roots. As a beginning venture in this arena, the present study was undertaken to investigate the use of pronouns in Malayalam speaking autistic children.

It seems important to examine this phenomenon further to see how far it is a feature of autism rather than a function of being at a certain stage in language development. The study was carried out in Malayalam which is one of the Dravidian group of languages where second and third person pronouns find minimal usage. Hence the aim of the study was to investigate the atypical behaviour of this children in understanding and producing the pronouns. The answers to the questions about pronominal usage may shed light on the underlying deficit in autism, the knowledge of which may be used for the management of these problems.

METHODOLOGY

The aim of the study was to investigate the use of pronouns in Malayalam speaking autistic children.

Subjects

The study was conducted on 10 verbal autistic children within the age group of 7-12 years. This included 4 females and 6 males. All the children had Malayalam as their mother tongue. But were exposed to English as well. been diagnosed as DSL with autism They had based on Rutter/DSM III R criteria. Extensive speech and language rehabilitative programs are being followed for each of them. Five of them are attending normal school at present. These details are presented in Table I in a later section.

Materials

Malayalam pronouns fall into three In major categories of first person, second person and third person and an additional group of interrogative pronouns (Syamala Kumari, 1995). This study was centered around the use of first three classes, and amongst these only those that are commonly used by normal children were assessed. The use of these pronouns were tested in three areas of linguistic abilities, namely - comprehension, expression an repetition.

a. Repetition task: Sentences consisting of common nouns and verbs with each pronouns selected for the study served as the material for repetition task. Six sentences of varying length from 2-5 words were chosen. On the whole there were 42 sentences for repetition. The pronouns selected were η_{2} :n , η_{2} , η_{1} , η_{2} , η_{3} , η_{2} , η_{3} , η_{2} , η_{3} , η

b. Comprehension: Similarly 10 sentences were prepared for the comprehension of I and II person possessive pronouns 'my and 'your' and a pointing task was **employed**.

c. Expression: For expression simple questions like 'whose pencil is that ?' etc. were chosen to elicit a response of "your/my" from the subjects.

d. Spontaneous speech: The use of pronouns was also analysed in spontaneous speech which was elicited by story narration, picture description and conversation.

Tape recorder and cassettes were used to record the utterances.

Data collection

The sentences prepared for the repetition task were read out one by one and the expected response was the repetition of the same by the subjects. In the comprehension task, instructions using the first person and second person pronouns referring to either the subject or the tester were given. The subject's ability to carry out the task, was taken as an indicator of his/her comprehension.

Eg: Touch my nose

Keep the pencil on your book

For expression interrogative sentences were presented and the responses were elicited. In these the use of appropriate pronouns were looked into.

Data description and analysis

The recorded sample was transcribed in IPA and analysed for various speech and language characteristics, and descriptive statistics was employed.

Speech characteristics included articulation, voice (pitch, loudness, quality) and intonation. Linguistic characteristics included pronouns (in detail), echolalia, and other aspects of spontaneous speech. MLU was calculated using the formula

> Total number of words Total number of utterances

Analysis of pronouns

a. Repetition task.: The overall percentage of pronouns produced in the repetition task was calculated and the pronouns were compared in terms of frequency of usage.

Individual scores for each pronoun as produced by the 10 subjects were also calculated and each subject was compared on this.

b. Comprehension:comprehension of the two possessive pronouns 'my' and 'your' were calculated separately and both these pronouns as well as each subject's ability to comprehend the two pronouns were compared.

c. Expression: Expression was analysed on the basis of their ability to use the 'my/your' pronouns appropriately. The 10 subjects were ranked on this task according to their proficiency.

Spontaneous speech sample elicited by various tasks were analysed for the presence of pronouns and their relative frequency of occurance.

The scores obtained from each of these analysis have been represented in graphs and tables for the purpose of discussion in the section on results and discussion.

RESULTS AND DISCUSSION

This chapter includes the following subtopics:

- A. Subject description
- B. Speech characteristics
- C. Language characteristics
- D. Use of pronouns

A. Subject description

Table 1

Subject description

SN	Age (yrs)	Sex	Mother tongue	OLET	DSLIU (yrs)	OVC (yrs)	EANSN
S_1	12	F	Malayalam	English	6	before 5	Normal school
S_2	11	М	п	п	6	н	п
S_3	10	М	II	п	4	п	п
S_4	10	F	II	II	4	н	п
S ₅	10	F	п	п	4	н	п
S_6	12	F	п	11	2	п	-
S_{7}	12	М	п	н	5	"	-
S ₈	8	М	II	11	4	after 5	-
S ₉	8	М	п	п	2	п	_
Sg S ₁₀	7	М	I	n	2	II	-

Note: 1. Subjects are numbered 1-10 based on their verbal functioning level.

2. SN - Subject number; OLET - Other languages exposed to; DLSIU - Duration of speech and language intervention undergone; OVC - Onset of verbal communication; EANSN - Education attending normal school or not All the subjects were within the age group of 7-12 years with Malayalam as their mother tongue. This included four females and six males. All of them have been attending speech and language intervention programs for a minimum of two years. This has been mentioned specifically for each of the subjects in the table. From these, five are at present integrated into normal academic curriculum.

B. Speech characteristics

Table	2
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Speech characteristic		S 1	S 2	S 3	S 4	S 5	S 6	S 7	S 8	S 9	S 10
Articulation		N	Ν	N	Ν	N	N	Ν	MSD	Ν	N
	Pitch	N	Ν	Ν	N	Ν	N	N	HP	N	N
Voice	Loudness	N	N	Ν	Ν	Ν	Ν	Ν	OS	S	S
	Quality	N	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν
Intonation		Ν	N	N	N	М	N	SS	SS	Ν	М

Speech characteristics

MSD - Most of the sounds distorted; HP - High pitched; OS -Occassionally soft; S - Soft;SS - Sing song; M - Monotonous; N - Normal

Articulation

Of the 10 subjects 8 had normal articulation in accordance with Schuler's (1980) study who found no articulatory abnormalities in the autistic population studied. However, subject 7 showed poor articulatory skills in spontaneous speech when compared to echoed utterance. This has been reported by Pronovost, Wakstein and Wakstein (1966); Ricks and Wing (1975). On the other hand subject 8 showed articulatory errors with all speech sounds except the bilabials in both spontaneous and echoic utterances. ${}^{s}_{8}$ was one of the youngest children included in the study, and his performance is in accordance with Shyamala (1989) who found abnormality in ten year old autistic also.

Voice quality and intonation

One frequently noted vocal characteristic in studies of autistic population is that of consistent high pitch often described as bird-like. Other vocal idiosyncracies that have been noted included hoarseness, harshness and hypernasality (Pronovost, 1966). One of the subjects ${}^{\rm S}_{18}$ had a high pitched voice and was occassionally soft in loudness. S₉ and S₁₀ showed a consistent soft voice.

Among the intonational peculiarities attributable to autism monotony seems to be most widely recognised. In contrast are those who reportedly speak in sing-song manner. Two of the 10 children (S_5 and S_{10}) has monotonous speech patterns while S_7 and S_8 exhibited sing-song pattern. This result also supports the previous study in Indian context (Shyamala, 1989).

c. Language characteristics

Functional level of the subjects

^S₁ - Comprehends and expresses personal needs and daily activities. Also answers appropriately to general interrogative questions. Expresses in 2-3 word sentences and can maintain conversation to a fair extent.

 s_2^{s} - Functions at the same level as s_1^{s}

 $^{\rm S}_{\rm 3}$ - Functions at the same level as $^{\rm S}_{\rm 1}$

^S₄ - Comprehension of simple commands, personal needs and questions regarding daily activities is good. Expresses known activities in sentences, but cannot maintain conversation if asked about things which are not being taught.

 $^{\rm S}_{~5}$ - Functions at the same level as $^{\rm S}_{~4}$

 $_{6}^{s}$ - Functions at the same level as $_{4}^{s}$

 s_7 - Comprehends very limited simple commands and questions regarding activities. Spontaneous speech is limited to single word utterances, and requires prompting. Most of the speech is echolalic in nature.

 s_8^{s} - Comprehension is the same as s_7^{r} . But expresses spontaneously those activities known and requires prompting for others.

^s₉ - Functions at a lower level than other subjects in both comprehension and expression. Prompting is almost always required for expression.

 $^{s}_{10}$ - Functions at the same level as $^{s}_{9}$

				Т	able	3				
					MLU					
	S 1	S 2	S 3	S 4	S 5	S 6	S 7	S 8	S 9	S 10
MLU	4.3	4.4	3.9	3.8	3.3	3.6	1.7	1.9	1.1	1

Functioning level of the subjects with reference to their verbal communication was determined by calculating the mean length of utterance and also by observation of their ability to maintain conversation. As noted from the table, subjects ${}^{s_1}_{1} - {}^{s_5}_{5}$ performed at a higher level than subjects ${}^{s_6}_{-10}$ in terms of mean length of utterance and other verbal abilities.

Echolalia

Immediate echolalia was present in both spontaneous speech and elicited imitation. This was noticed more for unfamiliar questions and utterances. Subjects 1 and 2 who are functioning at a higher level in verbal communication than others showed only minimal echolalia. Delayed and mitigated echolalia was noticed occassionally in S,. These observations are in agreement with a number of studies reported in the literature (Pronovost, 1966; Froschels, 1932; Myklebust, 1957; Shyamala, 1989).

MLU

Pronouns

Comprehension

Comprehension of the possessive pronouns 'my' and 'your' was assessed by their ability to carry out action following the appropriate command.

As the graph shows there was near 100% comprehension (94%) of the pronominal form 'your' (with reference to the subject). The comprehension of the pronominal form 'mv' (with reference to the tester) was 100% for the first five subjects. S_6 to S_{10} showed poor comprehension of 'my' with S_6 and S_7 showing an overall percentage of 60% and 80% respectively, and S_8 , S_9 and S_{10} had 0 scores. The errors in the comprehension of 'my' were consistent across all cases, making the action refer to themselves rather than speaker.

Example of 'my' task Example of 'your' task Touch my eyes Touch your eyes Correct response - Correct response touched tester's eyes touched subject own eyes Incorrect response that Incorrect response was consistently seen touched tester's eyes

across the subjects touched subject's eyes

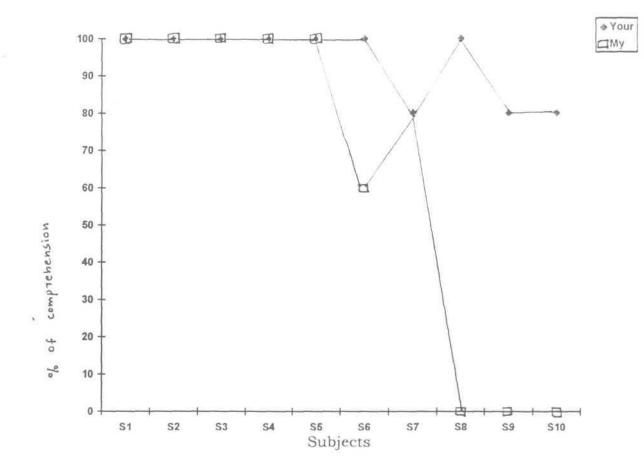


Table - IV Percentage of comprehension of pronouns.

Expression

Table 4

Expression

'your' task		'my' task					
Responses obtained	% of usage	Responses obtained	% of usage				
Your	0	my	67.5				
term used to refer to feminine gender of older age, i.e. in the present context, the tester)	52	proper name echoed utterance/NR	22.5 10.0				
my/subject's name (reversed pronoun)	28						
echoed utterance	20						

'your' task

The overall usage of the pronoun 'your' was found to be 0%. But 52% scores was obtained for the correct reference ' 450:451 ' which is a kinship term to refer to feminine gender of old age. Subjects 1, 2, 3 and 5 consistently gave to the same for the 'your' task.

The interesting finding of the expression task was that the "your" pronoun was replaced by either "my" pronoun or subject's name by most of the subjects, i.e. around 28%. Subjects 4, 6, 7 and 8 gave these kind of response.

Responses of subjects 9 and 10 was mainly echoic.

Eg: Whose pencil is that ? (tester's pencil) Correct response - This is 'your' pencil Equivalent response - This is to to response - This is 'my' pencil Reversed responses - This is 'my' pencil This is (subject's name) pencil

Echoed response observed - pencil

'my' task

The pronoun 'my' got a score of 67.5%. Subjects 1 to 6 used 'my' almost consistently. Proper name was placed next to 'my' (22.5%) in the percentage of usage and ${}^{s}_{7}$ and ${}^{s}_{8}$ **consistently used** their names instead of the pronoun 'my'. **Subjects** 9 and 10 gave a mixed response where all the patterns were seen, namely - my/proper name/echoed utterance/ no response. These type of responses had a score of 10%.

Repetition task

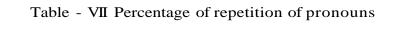
Repetition task included the subjects repeating the test items after the examiner. This had six sentences of varying length in each pronoun category.

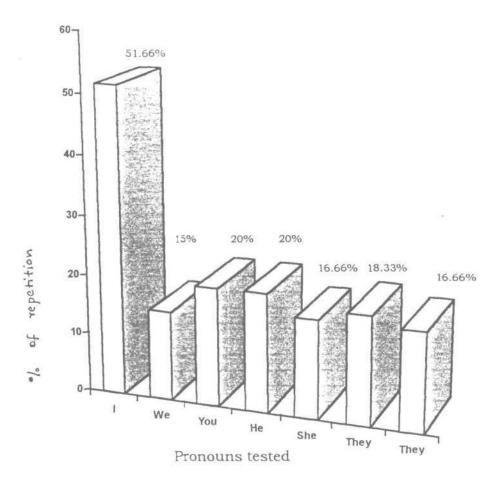
Table	6
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Scores on repetition task

Subjects	MS=6	MS=6	MS=6	MS=6	MS =	6 MS=6	MS=6
	(I)	(we)	(you)	(he)	(she)	(they)	(they)
S 1	6	2	6	5	4	4	4
s 2	6	4	6	4	5	6	5
S 3	3	0	0	0	0	0	0
S 4	2	2	0	1	1	0	Z
s 5	2	0	0	0	0	0	0
S 6	2	0	0	1	0	0	0
S 7	1	1	0	1	0	1	0
S 8	3	0	0	0	0	0	0
S 9	6	0	0	0	0	0	0
S 10	0	0	0	0	0	0	0

First person singular pronoun I (η_{2}) got a maximum score of 51.66%. The second person and the third person pronouns had scores around 15-20%. In this task, it was found that as the length of the utterance increased, the subjects started omitting the pronouns and repeated only the last words. Subjects 1 and 2 repeated all the pronouns irrespective of the mean length of utterance. On the other hand, subject 3 to 9 showed a consistent pattern in that they tended to drop the pronoun 'I' (η_{2}) as the MLU of





the test material exceeded 2 to 3 words and the other pronouns were also seldom repeated by these subjects except only in the two word sentences. Subject 10 failed to repeat any of the pronouns. Subjects 3, 5, 8 and 9 repeated only I ($\gamma^{2:n}$) and always omitted the other pronouns irrespective of the length of the test material.

Spontaneous speech

Hundred spontaneous speech utterances elicited by picture description and story narration were analysed for the occurrence of various pronouns. It was observed that the first eight subjects used the first person singular pronoun 'my' appropriately in the spontaneous speech, although the frequency of occurance of this found to be less in the low functioning autistic children. The occurrence of all the other second and third person pronouns was found to be very rare even in the highly functioning autistic children. None of the ten subjects used the second person pronoun 'you' in their spontaneous utterance in Malayalam.

deixis term (d) (this) The was found to be occassionally used by subjects 1 to 5. On the other hand, the deixis pronoun ada (that) was rarely used in the spontaneous speech, but was found to be present in echolalic utterances.

No true pronoun reversal was observed in the spontaneous speech of any of the 10 subjects. The most interesting finding was the substitution of proper nar.es or kinship terms for the personal pronouns.

Comparison of the three tasks

On an average all the subjects performed better on comprehension task than expression task. When pronouns of the study were compared, the first person pronouns found relatively higher percentage of usage in the two tasks and spontaneous speech. Though second and third person pronouns were absent in the expression and spontaneous speech of all the subjects, few of the high functioning subjects produced these in the repetition task. The high functioning subjects performed better than the low functioning subjects in all the three tasks and spontaneous speech considered in the study.

Another finding of the study was the difference in pronominal usage with reference to age and gender differences. With increase in age the subjects showed an increase in the usage of pronouns. With reference to gender, the female subjects of the study performed at a higher level in pronominal usage than the male subjects.

Discussion

Literature suggests that autistic children are differentially impaired in their ability to comprehend and

use speaker-addressee pronouns. This has been supported by the present study. From a listner perspective the autistic children in the study showed complete understanding of 'your' as applying to themselves. Five of the autistic children studied also showed full understanding of 'mv' as applying to the speaker- in the situation. In other words, these autistic children had no difficulty understanding these terms as referential labels, nor were there any problems in distinguishing the 'self from 'other'. However, the other five autistic children showed difficulty in the comprehension of 'my' pronoun with reference to the speaker. The first five subjects performed better on all language tasks when compared to the last five subjects which was indicative of higher language functioning ability than the latter group. This could be one possible reason why they got near 100% scores in the comprehension of both personal pronouns.

From the results of the repetition task it was found that the percentage of scores varied across the subjects and also across the first person and second and third person pronouns as a group. The pronoun 'I' was repeated by almost all the subjects in the two word utterances. When this pronoun occurred in sentences of three words, the lower functioning autistic subjects omitted these except s_9 who got 100% score on 'I' pronoun. However, the high functioning autistics ${}^{s}_{1}$ and ${}^{s}_{2}$ who had a mean length of utterance greater than 4 showed an omission of pronouns only when the sentence length exceeded 4 to 5 words. Studies on elicited imitation have shown that children will not repeat beyond their own grammatical competence (Menyuk, 1969; Menvuk and 1972). Perhaps the constraint to Looney, imitate the pronouns among less competent autistic children can thus be explained.

Majority of the subjects, however failed to repeat the other pronouns of second and third person more than 20% of the time, even for two word test stimulus. This may be a language specific finding. As mentioned in the review, in Malayalam the second and third person pronouns find minimal usage even by the normal population.

Instead of the production of the personal pronouns 'my' and 'your' in response to experimental elicitation, the autistic children tended to use proper names or kinship terms. Among the 'my' and 'your' pronouns the latter was not at all used even by the high functioning autistics compared to the 67% usage of 'my', both in elicited responses and spontaneous speech. This could be accounted for by both the language specificity and teaching strategies. By this, it means that because of the problems in correct assignment of

pronouns, many adults use proper names, both to refer to the child and in self reference when talking to the child. All these findings are supported by Jordan's report (1989) on the use of personal pronouns in 11 autistic children which was carried out on similar lines.

Inspite of these clear difficulties with pronoun production from the speaker's perspective, there were very few instances of actual 'pronoun reversal' by the autistic subjects, nor any avoidance of 'my'. One way reversal of 'my' for 'you' was seen in a few low functioning subjects to around 28%. These subjects far from avoiding 'my' as Bettelheim (1967) suggested, seem to have a preference for 'my'.

Jordan (1989) has suggested that difficulty with the deictic use of pronouns can explain why the autistic children have such a high rate of error in the production and why majority fail to produce any pronoun at all, while showing relatively better comprehension.

One possible explanation for the consistent reversal of 'my¹ for 'your' with reference to the addressee seen in ${}^{s}_{4}$, S₆, S₇ and S₈ can be through the 'theory of mind' hypothesis. This suggests that autistic children do not attribute mental states to other people, and that this impairs their ability to understand and predict the behaviours of others. Neither this theory explain the lack of spontaneous and original activity, not does it seem likely that the impaired metarepresentational ability could be the fundamental cause of the autistic behaviour. However, it does have the power to explain the linguistic deficits in autism and it provides a new and illuminating way of conceptualising and thinking about autistic behaviour.

This study has reaffirmed the problems of autistic children with personal deixis.

SUMMARY AND CONCLUSION

The present study was aimed at investigating the use of pronouns in Malayalam speaking autistic children. Ten autistic children in the age range of 7 to 12 years with Malayalam as their mother tongue and some exposure to English served as subjects for the study. The use of pronouns were tested in three areas of linguistic abilities, namely - comprehension, expression and repetition. The tape recorded sample was transcribed and descriptive statistics was applied.

Following conclusions were drawn from the results:

1. The results of the study were in close agreement with studies on use of pronouns by autistics cited in literature, in that they had specific difficulties with pronouns.

2. These difficulties with pronouns were observed across all three tasks of comprehension, expression and repetition in terms of lack of use of pronouns, use of proper names in place of pronouns, etc.

3. The comprehension of pronouns was found to be better than expression of the same.

4. However true pronoun reversal which was considered as pathognomonic of autistic speech was not observed to a significant level in the study. 5. Another interesting finding was the use of proper names and kinship terms to refer to persons rather thar. the use of pronouns, which could be to some extent the influence of language in which pronouns find relatively minimal usage and to some extent the teaching strategies adopted.

6. The high functioning autistic subjects were superior to the low functioning in terms of the comprehension and expression of pronouns also.

7. The amount of pronouns used showed an increase in the pattern with increase in the age of the subjects.

8. The four female subjects of the study performed at a higher level in terms of the use of pronouns when compared to male subjects.

9. Misarticulations, voice and prosodic abnormalities were some of the other features noticed in the autistic children included in the study.

Significance of the study

The study is significant because of the fact that it is the first attempt of its kind in Indian context. The study did indicate an abnormality in the use of pronouns by autistics in general. Language specificity and teaching strategies adopted were found to play a role in the acquisition of these pronouns and it suggests modification in the teaching strategies while dealing with these concepts.

Limitations of the study

The study suffered from the following methodological limitations.

1. Sample size was small.

2. All the pronouns of Malayalam were not included.

3. Only those utterances in the mother tongue were taken up for analysis from their bilingual autistics utterances. Bilingual performance can be evaluated in later studies.

4. Follow up of subjects were not done. This probably could have given a better picture.

5. Although a difference in the pattern of use of pronouns was seen with reference to gender and age differences in the study, these were not conclusive, because other variables which could contribute to these differences among subjects were not controlled. These may be taken up in future studies.

6. The duration of therapy could be a significant variable. Children with no therapy could be compared with those with different durations of therapy. These may be taken up in future studies.

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APPENDIX

MATERIAL USED FOR REPETITION TASK	
I. mont (nain) I. person singular. I	
t אינימית ב ג slept	na:n urage
2 monside 210 55 ands)-26 I drank milk	norn pall kuditlu
3 month mozeuzon ozon vyged to enzal I went to school with my mother	nan ammajude Luide skuifte joo:
4 man ~ man	na:n a:dE
5 marsh 20mm] sh mì mi alìmad I fell down from the Evee	ประบ พรงรรับๆ มัยนั้นร กาะมัก
E mound availant environ minung I alé dosa in the morning	yain raivile doila hinnu
II mond (nagal) I-person plyral we	
1 marsile æglæg we played	NaDar Karıla
2 mmmb Bazaly walmark (wal we went to study together	nagat orumits partition poisi
3 monsula nonlines waysem 3 we prayed in the morning	Bobol ra: VELE ETUNNE: to pra: v'
4 marsis sus) we ran	Nobot o:di

- 5 ന്താമ ണങ്ങൾക്ക് വേണ്ടി കോഷ്ക് ഉഷ്യക്കി amma nagaska veinde keika undaikki Mother made cake for us
- 6 ഞങ്ങൾ കുട്ടകാരോട് ചഴഞ്ഞ് കൂടി namal ku: ttaka: ro:da vavakkaku:4= we fought with friends
- III andorrois (yinje) Il person you
 - പ നിഞ്ഞാർ സ്വാനം കഴിച്ചു You eat food
 - 2 mlande my Dat cuisons You don't go to school
 - 3 mlamolo ezolyzy You sit down
 - 4 നിഞ്ഞൾ ബുക്ക് കൊണ്ടാംസോ? nense bukka kondavanno: ! Have you brought the book!
 - 5 നിഞ്ഞാൾ ചെച്ചാം കാടിക്കു. ninge vellam kudikju You drink water
 - 6 moments ung negale varu: You come
- in. month (avan) in person singular he

ı	നമാഹം	العدب
	He	went

gigal achairam karekju

ninga & skui fil poikanda

ninol Irikju

avan po:jI

-74-

avan uduppittu

avan nallakuttija:na

- 2 marin 25622336 He put on the dress
- manus new azzlausmi He is a good boy
- 4 marsh 223 Min wand 2 min His dress is green colour
- 5 mains matters about and avan attante kuide kaivel kajare He got on to the car with father

- avante uduppena patja nevama:na
- 6 mound 21 Julian man and and and avan pustakatil evuti He wrote on the book
- V conside (aval) in person singular she
- 1 analy Surma aval viinu She fell down
- Strister owner wirms ? aval pacjasam kuditu she drank pa: jasam
- 3 กลางเมืองกั แมล การร่วยม avaika taija sitamalla She does not like tea
- 4 moustons surbailes asles avaluate pensil odigu she broke her pencil
- 2 weisigen zigen gundmente merzgene angeke teint kainenhafe istemente She likes to watch T.V
- 6 היו איני או אין איני איני איני איני avalka ni:la baega istamalla She does not like the blue bag

VI. month (2027) - III person plural they -75-

1 month wish They sang

2 month may and a value They did not go to school

- 3 അവർ ബഹ്ലിൽ കാഗറി They got on to the bus
- 4 monto engembra nom They swam in the water
- 5 month cuins apromy cuisound anos They forgot to take the pen
- 6 anoud mey phylagian They are good children

VII. Bash (IVar) - III person plural they

- Evar HEritu 1 martalle here 1 They laughed
- Roadin sconelectro prog EVAN HETEMA: voida gallaku: ds They fought with sisters
- EVAN methaije tinnu 5 months lossel almost They are sweels
- Ivorka kolikjain skłamaina 4 maritan anglaning withing They like to play
- 5 mark mideral subsymme They gave groundnuts

6 mont wind a weat to park

avar paidi

avar sku: ere poijella

avar basse kajars

avar vellagel neindi

avar peina kandupoigain marannu

avar nalla kuttekalaina

Ever Leppelends kodugu

IVar pairkel poije

MATERIAL USED FOR TESTING COMPREHENSION

1. Keep the pencil on my book

Almandia ward more populations populations of the present source bucklints mugaled veriger:

2. Take Your box

നിത്തുകാം സോമു എടുആ

ninoluas bo: kso sdukku

3. Give Mamma your pen

ammakia ninalude peina kodukku

4. Show me your pencil

mlangers of the promotion.

genselvas pensel kainskju.

5. Touch my eyes

ente Fairis foin:

6. Take my box

200 m ming asond Ente bo:kso Edukku

7. Give Mamma my pen

ammakja ente pe:na kodukku

8. Touch your eyes

มาษณิริจบร ของชี่ ของวิจิ พาษณิริจบร หวงหว่า หวงุ่น

9. Show me my pencil

many or my work

Ente pensel kainikju

10. Keep the pencil on your book.

pensil nigslude bukkente nugslik vekju

MATERIAL USED FOR ELICITING EXPRESSION

- 1. Whose pencil is that ? (subject's pencil) 200 more and and more ? Ida a: rude pensil a: na!
- 2. Whose eyes are these ? (tester's eyes)
- 3. Whose dress is <u>x</u> colour ? (x tester's dress colour)
- 4. Whose name is <u>x</u>? (x tester's name)
- 5. Who has your pen ? (tester) maggaas an magas anderer? negolude peino airude kojjeloino
- 6. Whose name is x ? (x subject's name)

a:rude pe:ra:us ____?

- 7. Whose eyes are these (subject's eyes) 200 monopoles and base ? Ids assude kannuks fains

- q. Who is eating the candy! (subject) المستراحية عامية عامية مستريات عامية عامية منابع مستدلية عامية عامية عامية عامية منابع مستدلية
- 20. Who is reading the book? (tester) amproxim manne reading in mary? a:va:us bukks va:jikkunysds