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Editor
DUGGIRALA VASANTA

DEPARTMENT OF LINGUISTICS
OSMANIA UNIVERSITY
HYDERABAD - 500 007.
A.P. INDIA

# OSMANIA PAPERS IN LINGUISTICS



***Editor***
**D. Vasanta**

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## CONTENTS

# ACQUISITION OF EARLY SYNTAX IN TELUGU: A PERSPECTIVE FROM DEPENDENCY GRAMMAR*

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## ABSTRACT

In her recent papers, (1996, 1998), Ninio argues for adoption of Dependency Grammar in the place of Phrase Structure Grammar for studying children's syntax. Her main criticism of the latter is that it is not only abstract and therefore unlearnable but also assumes a discontinuity between children's early two word combinations and a later stage of real syntax when phrasal nodes can be identified in their grammar. The two grammars, according to her, also make different predictions about the relative difficulty of different constructions for children.

In this study we examine the early speech data of four Telugu children (ages 24 months to 29 months) and also the longitudinal cum cross sectional data of four children studied by Nirmala and present arguments in support of adopting a Dependency Grammar for not only child language analysis but for other applications especially in light of the fact that the Indian languages are non configurational.

## INTRODUCTION

Studies of syntactic development in children's early speech have been carried out basically in the frame work of phrase structure theory. One of the 'curious consequences' of this, according to Ninio (1996), is that phrase structure oriented acquisition theories find it extremely difficult to account for children's earliest word combinations, since the only constituents contained in these sentences are words. These combinations are generally ignored as 'pregrammatical'.

Ninio (1996, 1998), argues, therefore, for adopting 'Dependency Grammar' as a framework for studying children's syntax. Unlike the phrase structure model, which analyses sentence structure in terms of hierarchically organised constituents, a Dependency Grammar characterizes syntactic structure of a sentence in terms of Dependency relations obtaining between the Head word and its Dependent(s).

Using child language data from both English and Hebrew speaking children, Ninio argues that the difference involved in the two approaches makes altogether different predictions about the relative order of mastery of different three-term constructions when compared with those of phrase structure model and, favours the adoption of Dependency Grammar. Her claims are particularly relevant for Indian languages, which are non-configurational.

The objective of the present study is to explore how cogently the developing syntax of Telugu children can be accounted for in Dependency Grammar framework, connecting their two-word utterances to multiple ones. The data for the study are collected by Sailaja from four Telugu Mother Tongue children in the age range of 24 months to 29 months, each child's data consisting of three months of recorded speech. Besides this, Nirmala's (1981) study of four Telugu children's speech development is also taken into consideration.

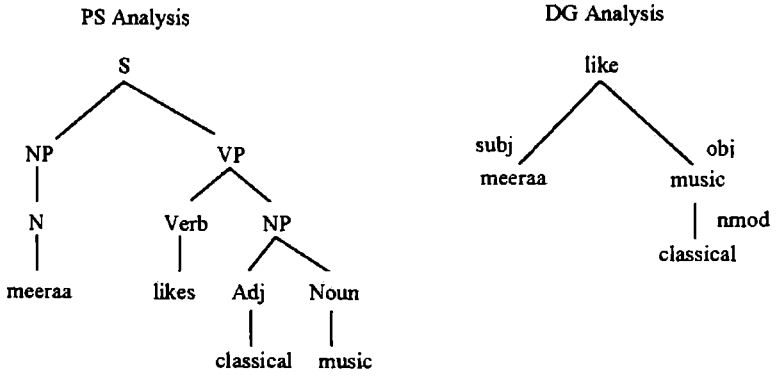
## THE TWO FORMALISMS

A mention of the chief characteristics of the two syntactic formalisms, namely Phrase structure model and Dependency model will not be out of place here. The two models are described aptly by Melčuk (1979) as follows. A PS (Phrase Structure) grammar 'describes quite well how the items of a natural – language COMBINE with other items to form tight units of a higher order, and so on.' (1973: 4). The notion of 'constituency' is, therefore, primary in a PS grammar. A dependency Grammar (DG), on the other hand, 'describes how items relate to other items; it concentrates on Relationships between ultimate syntactic units and

leaves uncharacterized the formation of derived syntactic units of higher orders' (1973: 4). A DG is essentially a word - grammar in the sense that words are the smallest and also largest units of syntax barring exceptions like word - strings in co-ordinate structures (Hudson: 1990). As Hudson points out a DG 'refers only to the relations between pairs of words' (1990: 104). These relations are articulated in terms of relational categories such as 'head' and 'dependent', 'root' and 'subordinate', the latter two being 'generalized version of 'head' and 'dependent' respectively'. (Hudson: 1990: 105).

It is generally agreed that unlike English, which has a strict word order among its syntactic elements, the syntax of non-configurational languages like the Indian languages, with relatively flexible word orders, can be better handled in the framework of DG.

We give below a simplified analysis of the sentence 'Meera likes classical music' in the two formats:




Note that in the PS analysis the verb is not related to the subject or the object nominal directly. In the DG on the other hand, there is a direct relationship between the verb like which is the 'root' or 'head', and its two dependent nominals namely meera, in a subject function, and music, in the direct object function. In

this formalism the word classical is a dependent of the head music and bears no syntactic relationship with any other word in the sentence.

Considering the fact that Indian languages are morphologically rich with flexible word order, we believe that children's developing syntax in any Indian language can be better dealt with in a DG framework. This is especially so in light of the fact that our own traditional linguistic enterprise has been carried out essentially in the dependency framework – Panini's Ashtadhyayi being the most comprehensive grammar of a highly inflected language like Sanskrit worked out in this model. The basis for Panini's syntax is Karaka system consisting of six basic syntactico-semantic relations termed 'Karaka' which hold between the verb and other participants in a sentence. These are comparable to case relations though not completely. The Karaka relations identified by Panini are 'kartaa', 'karma', 'karaNam', 'apaadaanam', 'sampradaanam', and 'adhikaranam'. (See Subrahmanyam 1999 for further detail). In Panini's grammar, the words in construction hold 'visheshya – visheshna relationship, meaning roughly 'head' and 'modifier'. However, since the aim of the present study is to examine the suitability of dependency grammar as a general framework for the study of children's developing syntax, and not to assess the efficacy of competing versions of dependency grammars, we do not commit ourselves to any specific model of Dependency grammar including that of Panini. This stand, we believe, will make it easier to compare our observations with those of Nanio.

## DATA AND METHODOLOGY

The observations of this research are based on our examination of speech samples collected earlier through elicitation from four Telugu speaking children in the age range of 24 to 29 months by Sailaja. Year Two children Kaushik (A), a boy and Shilpa (B), a girl were of age 24 – 26 months. The other two children Swetha (C), a girl, and Aditya (D), a boy, belonged to age group 27 months to 29 months. Three samples of each child's

recorded speech with one month's interval between sessions were considered. Each sample consisted of 30 minutes of recorded speech with detailed notes about the speech situation in which the utterances were spoken. From the total sample two and three word combinations of each child were separated and studied according to their linguistic patterns. Besides the four children's data, we have also considered Nirmala's (1981) cross-sectional cum longitudinal study of speech development of four Telugu children in the age group 1;6 to 3;6.

## DISCUSSION OF DATA

We present our observation of the data under the following major points:

**Continuous Stages in Developing Grammar:** Ninio (1996) points out that a phrase structure model of syntax cannot accommodate children's early two word combinations in its rule system since at this point we can not logically speak of either phrases or phrase - structure rules. Such theories of acquisition, she says, will distinguish between two discontinuous stages in children's production of multiword utterances a 'pregrammatical' stage followed by a stage when children's three and more word combinations start showing evidence of Noun or Verb phrases. But, this, Ninio points out, is contrary to the findings reported from several investigations of early speech of children speaking English and other European languages. These studies show that constructions in children's emerging grammar develop smoothly in a step by step manner, suggesting that there is a continuous process of syntactic development and no discontinuity.

We will illustrate this incremental development in linguistic patterns by considering a few examples from our children's data. We present in Table 1 the combination types observable in two months speech data of child A. The total number of combinations observed in month 24 was 74 and 181 in month 25.

The patterns involving a verb and another word are classified

as + Verb and those without a verb as - Verb. A combination with a predicate other than a verb is also classified as the latter.

Two points must be made clear here with regard to why such combinations are considered by us as syntactic constructions. Firstly, these patterns are built around classes of words for which the children are able to mark the inflections called for by the word category e.g. tense, person, number inflections on verbs, case and number marking on nouns etc., although the children cannot be said to have completed or perfected the learning of the morphology of such inflections as yet.

Secondly, the patterns recorded are children's use of specific expressions in specific meanings either as part of their own initiative or in response to questions and observations made by others in a speech situation. In functional terms, these word combinations were used to make requests, describe locations and actions, possession and modification of entities in specific speech situations. It is worth noting here that 'across languages, children's early word combinations cover a similar range of functions (Clark 2003:167)'.

The two word combinations of child A given in Table-1 show a rich set of patterns mostly built around the verb as Head. Besides intransitive and transitive verbs, the Child's repertoire has the existential verb undi to indicate the location or presence of an entity, and its negative counterpart leedu to talk about the non-presence of an entity. The negative verb of denial namely kaadu and refusal oddu are also present. The -Verb pattern included combinations of a subject nominal and interrogative or adjectival predicate word as Head. The only two combinations with a noun as Head involved adjective + noun and a possessor + possessed relation. In all the patterns except one, the Head is positioned after the Dependent as would be expected in a head final language.

**TABLE – 1: (A's two word combinations. Figures following + belongs to 25th month)**

| Sl. No. | + VERB | - VERB | Pattern Type | Head Dependent Placement | Tokens | Illustrative Examples | Gloss |
|---|---|---|---|---|---|---|---|
| 1. | Ndir Vint | | | DH | 10+9 | inTikki pootaa | (I) will go home |
| 2. | Adv Vint | | | DH | 1 | jaldi ottaalu | (They) will come soon |
| 3. | NLoc Vint | | | DH | 7+14 | ikkaDa occindi | (It) came here |
| 4. | NSubj Vint | | | DH | 1+5 | leil ottundi | Rail is coming |
| 5. | Adv Vtr | | | DH | 4+5+6 | nijanga taagtaa | (I) will really drink |
| 6. | NLoc Vtr | | | DH | 6+10 | akka aakuNTa | (I) will play there |
| 7 | NSubj Vtr | | | DH | 2+18 (Imp) | dooma kuTTindi | Mosquito bit |
| 8. | NObj Vtr | | | DH | 5+38 | teddi eecunna<br>moom kakkuNTa | (I) put on panty<br>(I) will wash face |
| 9. | NLoc VBE | | | DH | 5+5 | ikka undi | (It) is here. |
| 10. | NSubj VBE | | | DH | 4 | paical unTaayi | (There) will be money |
| 11. | NSubj V Neg (BE) | | | DH | 6 | baabu leedu | boy is not (there) |
| 12. | NDat V Neg (want) | | | DH | 5 | naaku oddu | I do not want |
| 13. | NPoss VNeg (kaadu) | | | DH | +4 | tammuldi kaadu | It is not younger brother's |

| Sl. No. | + VERB | - VERB | Pattern Type | Head Dependent Placement | Tokens | Illustrative Examples | Gloss |
|---|---|---|---|---|---|---|---|
| 14. | | NSubj WHPred | | DH | 6+10 | pillalu eedi | Where are the children? |
| 15. | | WHPred NSubj | | HD | 4 | eedi peepalu | Where is the paper? |
| 16. | | Adj N | | DH | 7+16 | picci baal | Bad ball |
| 17. | | WH Poss N | | DH | 1 | ooli cappal | Whose slipper |
| 18. | | N Subj AdjPred | | DH | 3+1 | idi mancidi | This is good |

Abbreviations: Adv=Adverb, Dat=dative, dir=directional, int=intransitive, Loc=locative, N=noun, Neg=negative, Obj=Object, Poss=possessive, Subj=subject, tr=transitive, V=verb.

Now we will take up a few examples to illustrate that children's three word utterances are often elaborations of shorter structures reflected in their two word combinations. We give in Table 2 some of the two word combinations and their three word elaborations indicating the pattern of change involved by the symbol >. The head of a dependency pair is marked H and its dependent D. When a dependent has its own dependent the two are enclosed in parenthesis with head marked as H.

**TABLE – 2: A's Two Word and Three Word Patterns Compared**

| Sl. No. | Two word Pattern | Three word Pattern | Pattern Change | Examples |
|---|---|---|---|---|
| 1. | N Subj + V int | N Subj + V int + Adv | $DH > D_1HD_2$ | (1) pappi ellindi<br>'Pappi went'<br>(2) pappi occindi ippule<br>'Pappi has come just now' |

| Sl. No. | Two word Pattern | Three word Pattern | Pattern Change | Examples |
|---|---|---|---|---|
| 2. | N Dir + V int | Adj + N Dir + V int | DH>(DH)H | (1) intiki pootunnaa<br>'(I) am going home'<br>(2) peddatta inTiki pootunna<br>'(I) am going to big aunt's house' |
| 3. | N Loc + Vtr | (Det) + N Loc + Vtr | DH>(DH)H | (1) akkala aakunTaa<br>'(I) will play there'<br>(2) aa akkala aakunTaa<br>'That there (I) will play' |
| 4. | N Subj + BE Neg | Adj + N Subj + BE Neg | DH>(DH)H | (1) baabu leedu<br>'The boy is no there'<br>(2) oka raaju leedu<br>'One king is not there' |
| 5. | N Obj + Vtr | N Subj + N obj + Vtr | DH>$D_1D_2H$ | (1) moom kakkunTaa<br>'(I) will wash face'<br>(2) ammamma niilu paTTukondi<br>'Grand mother has filled water' |

Abbreviations: Adj=adjective.

Similar elaboration of structure of two word combinations was also observed in child B's three word expressions as shown in Table 3:

**TABLE – 3:**
**Some Examples of B's Two and Three Word Patterns**

| Two word Pattern | Three word Pattern | Pattern Change |
|---|---|---|
| Adj + Noun<br>naa cappal<br>'My chappal' | Adj + Noun + Adj Pred<br>naa amma mancidi<br>'My mother is good' | DH>(DH) H |
| N Subj + Vtr<br>nee pettaa<br>'(I) put it' | N Subj + Vtr + N Obj<br>atta iccindi bomma<br>'Aunt gave the doll' | $DH>D_1HD_2$ |

The examples from two of the younger children indicate that there is a clear connection between the two word and three word combinations in children's early utterances. Speaking about the multiword combinations in the speech of the youngest child, Swati, Nirmala also says 'some of the two word sentences used earlier were rendered with three words' (1982:18).

We further notice that the elaborations consist in adding one or more dependents to a Head word or adding a dependent to an existing dependent which now bears a Head relationship to the new advent.

In light of these examples from Telugu acquisitional data and also studies carried out on English and other European children's speech development (Bloom, 1970; Tomasello, 1992), which show a smooth incremental development of syntax from two word combinations to multi word combinations, we can conclude that the syntactic structure of children's early speech can be accounted for in a straight forward manner in dependency terms without invoking phrase structures.

**Argument Structure in Early Syntax:** An examination of the two word utterances of the two younger children shows clearly that they were able to use a number of verbs with their different

demands on participant roles. As we have already seen in Table 1, A had in his grammar not only a number of intransitive and transitive verbs, but also the verb 'Be' *uNDu* with its negative counterpart *leedu* 'is not'. The child also had a few occurrences of the negative verb *oddu* 'not wanted' in his two word combinations. Similarly Shilpa's (B) two word combinations contained intransitive verbs like *poo* 'go', *raa* (was) 'come', *kuuco* 'sit' and transitive verbs like *tinu* 'eat', *aaDu* 'play', *cuuDu* 'see', ditransitive verb *ivvu* 'give', and existential verb unDu 'be', and its negative counterpart. The children also seemed to know the argument structure of the verbs in the sense that they understood the nature of event that a verb describes and the number and types of participants required by it. In other words they knew that intransitive verbs require one participant role, transitive verbs two, ditransitive three and a verb like *telusu* 'know', *oddu* 'do not want' etc require a participant which is dative marked besides one in object role. This will be clear from a few examples of A and B given in Table 4.

**Table – 4: Examples from A and B for Verbs and their Roles**

| Examples from A | | Examples from B | |
|---|---|---|---|
| ikka occindi | '(It) came here' | skuul pootaa | '(I) will go to school' |
| iNTikki pootunnaa | '(I) am going home' | amma ottinni | 'Mother came' |
| ikka undi | '(It) is here' | akka undi | '(It) is there' |
| doma kuTTindi | 'Mosquito bit' | aalu koTTi | 'He beat' |
| teddi eecunna | '(I) have put on panty' | pannu tinTaa | '(I) will eat fruit' |
| naaku oddu | 'I do not want (it)' | idi oddu | '(I) do not want this' |

Our observation that children's early word combinations give evidence of an understanding of verbs and their participant roles is also in tune with what has been reported by researchers

regarding early speech of English children. For instance, the two-word utterances in Kendall (aged 2;0) have been analyzed by Bowerman in terms of 'the participant roles in the events talked about, where the nouns Kendall produced denoted the agent of the action (the agentive), or the object affected (the objective), the place (the locative), or the possessor (the experienced) (reported in Clark 2003: 168).

One important point to note in the case of Telugu acquisition data is that although the children used a given verb with its appropriate argument structure, their early speech production was typically constrained in that all the participant roles demanded by a given verb did not surface in the same utterance simultaneously. The two word combinations of both A and B involving verbs had only the following patterns:

ø Subj + Adv + V int/ V tr
ø Subj + N Loc + V int/ V tr
Subj + V int / V tr
Obj + V tr
Dat + V tr
Inst + V tr

To take an interesting example of this constraint, child A in one of her recordings at 26 months said the following expressions in immediate succession.

(1) powlalu laacukuNTaa '(I) will apply powder'
(2) powwaato laacukuNTaa '(I) will apply with puff'
(3) laacukunTaa powwa '(I) will apply puff'.

The selective expression of argument roles was also noticed by Nirmala (1982). Speaking of Swati's speech at 1;8, she points out that majority of her sentences at this stage were Subj/Obj + Verb but not Sub + Obj + Verb.

What is crucial for our discussion is that we need a mechanism which will capture this characteristic of the child's

grammar, namely each participant role bears an independent relation to the verb as Head. In other words we need a Paninian type of grammar which specifies the structure of a sentence in terms of the Verb and the participant roles namely the Karakas which are directly relatable to it. In Panini's model of grammar, all nominal elements in a sentence bearing participant roles like Karta, Karma, KaraNam etc, called Karakas, are directly relatable to the verb in the sentence without any intervening phrasal node such as VP. Such a possibility exists in DG but not in PS. Speaking about the advantage of dependency analysis, Hudson also says, 'words which need to be related directly to one another can be so related in dependency grammar but not in constituency grammar, where phrase nodes usually intervene.... (1190: 105).

**Dependency Pattern and Complexity of Construction:** Another major observation made by Ninio (1996, 1998) is that the two grammar PS and DG will make very different predictions about the relative difficulty of different constructions in acquiring a language. To illustrate this, consider the following English sentences of three words discussed by her which involve different dependency patterns as shown in Table 5.

In Table 5 the dependency pattern of each sentence is shown to its right with arrow marking the direction of dependency from H to D, that is H→D. The rest of the markings are as indicated in Table 1.

**Table – 5: Some Dependency Patterns from English**

| | Sentence | Dependency Pattern |
|---|---|---|
| (1) | Little boys danced | (D H) H |
| (2) | John made this | $D_1$ H $D_2$ |
| (3) | This I dropped | $D_1$ $D_2$ H |

Ninio gives a total of six possible patterns for three word expressions, but we have taken here only three for our illustration.

According to Ninio, the measure of complexity in the three

constructions above, can be determined by checking whether the dependency couples are adjacent to each other or not. In Table 5,the dependency pair in (1) and (2) are adjacent or linear. As distinct from this in (3), one of the dependents namely $D_1$ is separated from its H through the intervention of $D_2$ and therefore the dependency couple $D_1$ and H are not adjacent. Ninio calls this structure as 'not one but two directional'. In other words, the dependency structure in (1) and (2) can be represented by a single linear graph but that in (3) needs to be expressed by a two dimensional graph. Ninio claims that 'three word combinations whose dependency structure can be represented by a linear graph will be acquired earlier than whose structure has to be represented by a two-dimensional graph' (1996: 14).

An immediate implication of this prediction will be that the canonical word order S+O+V in a transitive sentence, will be a problematic structure for children learning Indian languages since the dependency pattern involved in such a sentence namely, $D_1$ $D_2$ H, distances one of the dependents from the Head. Further since the general position for the placement of adverbials in Indian languages is the preverbal position, an intransitive sentence with adverbial modification will be difficult to acquire. Either the children would avoid producing such sentences till a later date or convert them into a more suitable pattern. We will now examine such structures in the speech of our children.

Taking the case of the two younger children of this study , we notice thay majority of the three word utterances in A's speech continued to be either subjectless or objectless as also observed in two word combinations, with the result that the $D_1$ $D_2$ H pattern of transitive verbs were avoided. In A's speech at 26 months, when the subject nominal started surfacing, it occurred in a sentence with SVO pattern and not in SOV as may be expected. For instance, *ammama peTtundi boTTu* 'grand mother will fix the bindi', similarly his early three word combinations also showed a few occurrences of adverbials being placed after the verb, e.g. *dooma kuTTindi ippule* 'the mosquito bit now', *pappi occindi ippule*

'Pappi came now'. Similar patterns of word order change were also noticed in B. For instance instead of *amma ekkaDa ellindi* 'Where did mother go', *ekkaDa ellindi amma* and instead of *kukka eem tindi* 'what did the dog eat'? *eem tindi kukka*, in both of which the Subject nominal was placed at the end.

Notice that the above mentioned pattern changes render a $D_1$ $D_2$ H dependency into a $D_1$ H $D_2$ pattern, which according to Nanio is the simpler pattern to acquire.

Instances of word order alterations were also observed in the older children's speech. For instance in C's speech (28 months) we come across examples like *neen kuucuntaa akkala* 'I will sit there', with Subj + Verb + Ndir, and *akka pooyindi ippulu* 'elder sister went now' with Subj + Verb + Adv, a pattern involving $D_1$ H $D_2$ pattern in dependency term. Similarly in D's speech three word combinations such as *inTiki pootaa ippulu* '(I) will go home now', *paNDu iwwu naaku* 'fruit give to me', show $D_1$ H $D_2$ pattern. Such word order variations are also noted by Nirmala (1981). For instance Swati at 1;9 produced utterances like *akka tuutunna neenu* (N Dir + Vint + Subj) 'I sat there' and *neenu ellanaa kuullo* (Subj + Vint + N Loc) 'shall I go to school'. The older child Pawan in Nirmala's study was also reported to have used Subj + Verb + Obj order as in *doomal kuttay naaku* 'mosquitos bit me'. The occurrence in the children's speech of such three word patterns, which deviate from the canonical SOV pattern, when viewed along with the tendency to express only subject or object but not both in their two word combinations, can be interpreted as an effort to obtain a linear dependency pair, namely $D_1$ V $D_2$, in preference to $D_1$ $D_2$ V. The tendency to delete subject and object nominals in the presence of a directional, locational or adverbial element in a verbal sentence by the children in their early speech can also be interpreted as a strategy to keep the H and D dependency adjacent to each other.

However, we also come across word order variations in children's three word combinations which cannot be analysed in

terms of adjacency. For instance, in both C and D's respective sample we found instances of OSV pattern e.g. *bomma naana teccaaru* 'toy, father brought', and *æpil amma koosindi* 'apple mother cut'.

But what is of immediate relevance to the theme of our paper is the fact that not only do Indian languages have flexible word order in their syntax, but such variations are also observable in young children's speech. A PS grammar cannot handle such variations in a straight forward manner. A dependency grammar, therefore, may be a better framework to account for child language data.

## CONCLUSION

We have presented in this study detailed evidence from early speech of Telugu children to suggest that a dependency grammar is a suitable framework to account for children's early syntax. A DG which accounts for relationship between syntactic elements on a monostratal level without calling for abstract rule system seems also to be a more practical and simpler formalism not only for studying normative data but also for applications in assessment and remedial intervention in speech language disorder. Such a grammar may prove useful in designing of curriculum in second language teaching also.

As for the theoretical aspects of syntax, while phrase structures grammar has dominated syntactic analysis and theorizing in America, dependency grammar has been a preferred model in European countries as in Prague, Germany and Russia. Speaking of the dependency grammar tradition in the continent, Hudson says 'it could reasonably be described as the 'indigenous' syntactic theory of Europe – so much so that it has been adopted as the basis for the European machine - translation system 'EUROTRA' (1990: 107). In our own country, the major NLP efforts are being articulated in the Paninian Perspective (see for details Akshar Bharati et al 1999).

We conclude our paper with the suggestion that it may be worth exploring the suitability of our own indigeneous models of grammar, especially the Paninian model, not only for understanding the structural organization of Indian languages, but also for different applications including language teaching and language assessment.

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# TOPICALIZED AND LEFT-DISLOCATED CONSTRUCTIONS IN TELUGU[1]

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It is a common knowledge that in an unmarked construction different elements occur in their specified positions, and they signal their respective normal communicative functions in addition to their syntactic functions. These elements, alongside signaling their normal communicative functions, also signal different communicative functions, provided they either occur in other than their normal positions or occur in their normal positions but at the same time marked with some kind of emphatic intonation. For the purpose of this paper, I deliberately ignore the later situation and only deal with the former situation. The signaling of different communicative functions involves occurrence of elements in other than their normal positions. This very situation results in the emergence of different types of marked constructions. Here, I would like to confine myself in dealing with two types of marked constructions in Telugu, namely **topicalized constructions** and **left-dislocated constructions**.

In the first place let us look into some typical patterns of Telugu unmarked constructions which will give us some idea as to how different elements are positioned in each of these constructions. Consider the patterns in question as given in (1), (2), and (3):

(1) **subject + indirect object + direct object + predicator**

(2) **subject + direct object + object complement + predicator**

(3) **subject + dative complement + subject complement + predicator**

Typical examples which can illustrate (1), (2), and (3) patterns are respectively given in (4), (5), and (6):

(4) *mēmu ataniki mā pāta iMTini ammāmu.*
we he (dat) our old house (acc) sold
'We sold him our old house.'

(5) *āme dānni cālā rucigā cēsiMdi.*
she it (acc) very tasty made
'She made it very tasty.'

(6) *ā illu māku cālā viMtagā agupaDiMdi.*
that house we (dat) very strange appeared
'That house appeared to us very strange.'

It is assumed, and I also believe, that in these unmarked constructions, unless emphatic intonation is used as a focusing device, no element gets focus or special prominence. That is to say, elements in these constructions merely signal their normal communicative functions along with their syntactic functions. Deviating from this, in marked constructions one of the elements occurs in other than their normal position. For instance, let us consider the sentences given in (7), (8), and (9) which are respectively the marked versions of (4), (5), and (6):

(7) *ataniki mēmu mā pāta iMTini ammāmu.*
he (dat) we our old house (acc) sold
'To him we sold our old house.'

(8) *cālā rucigā āme dānni cēsiMdi.*
very tasty she it (acc) made
'Very tasty she made it.'

(9) *cālā viMtagā ā illu māku agupaDiMdi.*
very strange that house we (dat) appeared
'Very strange that house appeared to us.'

Here, what we can see is that the indirect object *ataniki* in (7), the object complement *cālā rucigā* in (8), and the subject complement *cālā viMtagā* in (9), are occurring in their respective constructions in other than their normal positions. The common pattern that we can notice in these marked constructions is the occurrence of one of the non-initial elements in the sentence initial

position. In terms of communicative division, the elements that occur in the sentence initial position are generally known as topics.

Marked constructions of the pattern given above are distinguished from other marked constructions and are called **topicalized constructions**. Elements that occur in the initial position of these constructions are distinguished from the rest of the elements and are called topicalized elements. In discourse, the topicalized element is considered to be a known or given element and the rest of the construction is all about it. In non-topicalized marked constructions of Telugu, any element, other than the subject element, occurring before the predicator gets focus or special prominence.[2] Contrary to this; in topicalized marked constructions the subject element also gets focus when it occurs before the predicator.

Now notice the construction patterns shown in (12) and (13) in which the linking verb *av* 'be' is the predicator:

(12) **subject + subject complement + predicator**
(13) **subject + dative complement + subject complement + (predicator)**

When (12) and (13) are used for positive propositions, the predicator of (12) is not marked overtly and the predicator of (13) is marked only optionally. See the illustrative examples given in (14) and (15) which represent the construction patterns of (12) and (13) respectively:

(14) *nēnu mahā paMDituNNi.*
I (fp.m.sg) great scholar (fp.m.sg)
'I am a great scholar.'

(15) *atanu nāku baMdhuvu (avutāDu).*
he I (dat) relative is
'He is a relative to me.'

Now consider the example given in (16) which is the subject-focused version of (14):

(16) *mahā paMDituNNi nēnu.*
great scholar (fp.m.sg) I (fp.m.sg)
'A great scholar I am.'

Notice, in (16) the focused subject *nēnu*, as against the norm, appears to be occurring in the sentence final position. This is obvious because in this construction there is no overt predicator.

Now let us contrast the construction given in (18) with the construction given in (17):

(17) *doMgalaku, mōsagāLLaku mana samājaMlō*
thieves (dat) swindlers (dat) our society (loc)
*sthānaM lēdu.*
place is (neg)
'Thieves and swindlers have no place
in our society.'

(18) *doMgalu, mōsagāLLu vīLLaku mana*
thieves swindlers they (dat) our
*samājaMlō sthānaM lēdu.*
society (loc) place is (neg)
'Thieves and swindlers, they have no place
in our society.'

It should be noted here that (18) is the marked version of (17). In (18) what we see is the occurrence of the dative complement *doMgalu, mōsagāLLu* (without the dative case marker) to the left of the sentence. In this marked version, we also see the occurrence of the coreferent proform *vīLLaku* linked to the dative complement *doMgalu, mōsagāLLu*. Notice, the coreferent proform occurs in the place filled by the dative complement *doMgalaku, mōsagāLLaku* in the unmarked version, i.e. (17).

In marked versions of the type given in (18), the element that occurs to the left of the sentence is generally known as left-dislocated element. Hence, the marked versions of the type given in (18) can be labeled as **left-dislocated constructions**. The

peculiarity of the most of the left-dislocated constructions in Telugu is the presence of extra linguistic material immediately after the dislocated element. See the illustrative examples (19-27) in which the extra linguistic material is shown with an underscore:

(19) *raghu unnāDu cūDu, mā kukka ninna*
Raghu is look (imp) our dog yesterday
*vāNNi kariciMdi.*
he (acc) bit
'Raghu, our dog bit him yesterday.'

(20) *girija telusugā? āmeku maMci udyōgaM.*
Girija know (conf) she (dat) good job
*dorikiMdi*
got
'You know Girija? She got a good job.'

(21) *vanaja lēdū! dāniki jvaraM vacciMdaTa.*
Vanaja is (neg.conf) she (dat) fever came-they-say
'Vanaja! They say she got a fever.'

(22) *mīru ninna nāku iccina navala*
you yesterday I (dat) gave (adjl) novel
*uMdē, dānlō konni pējīlu lēvu.*
is (emp) it (loc) some pages are (neg)
'The novel that you gave me yesterday,
there are some pages missing in it.'

(23) *kāshmīru aMTē, akkaDa mahā cali.*
Kashmir say (cond) there very cold
'Kashmir, there it is very cold.'

(24) *veMkaTā? vāNNi nammoddu.*
Venkat (interr) he (acc) believe (neg.imp)
'Venkat? Don't believe him!'

(25) *amala uMdē, dāniki mahā pogaru.*
Amala is (emp) she (dat) very pride
'Amala, she has full of pride.'

(26) *girēmō ... vāDu bhayamerugaDu.*
Giri-perhaps he fear-knows (neg)
'Giri, he knows no fear.'

(27) *ravēnā! vāDoka daddamma.*
Ravi-is-it he-one simpleton
'Ravi, he is a simpleton.'

This extra linguistic material does not carry any particular meaning; however, it helps to use certain communicative strategies. For instance, by using such an extra linguistic material the speaker either tries to help the hearer in remembering something or tries to think of what to say next.

Left-dislocated elements are similar to topicalized elements in their role as discourse topics. However, the former are used when there is a need for some more powerful devices to introduce the discourse topics.

Remember, irrespective of their syntactic roles, the left-dislocated elements, as topics, always occur in nominative form. This can be seen from the examples given in (18-29).

Notice further, only the third person elements are left-dislocated; whereas such a restriction is not found in the case of elements which get topicalized.

It should be further noted that in these constructions, the occurrence of a coreferent proform can only be optional, if the left-dislocated element linked to the same is in the subject role[3] and marked with the extra linguistic material. As an illustration, compare the examples given in (28) and (29):

(28) *ravi pedda koDuku unnāDu cūDu, vāDu*
Ravi elder son is look (imp) he
*pacci mōsagāDu.*
arrant swindler
'Ravi's elder son, he is an arrant swindler.'

(29) *ravi pedda koDuku unnāDu cūDu, pacci mōsagāDu.*
Ravi elder son is look (imp) arrant swindler
'Ravi's elder son, he is an arrant swindler.'

Notice, in (29) there is no coreferent proform which can be linked to the left-dislocated subject element, i.e. *ravi pedda koDuku*. Despite the non-occurrence of a coreferent proform, (29) in no way differs from (28) as far as the propositional meaning is concerned.

As far as the left-dislocated constructions are concerned, in the written language, punctuation marks such as commas, question marks, exclamatory marks and period marks (dots) are generally used to reflect the pause which follows the dislocated element in the spoken language. Sometimes no punctuation mark is used in this respect. This can be seen from the sample textual illustrations provided in the Appendix.

## Abbreviations

acc = accusative; adjl = adjectival; conf = confirmatory; dat = dative; emp = emphatic; fp = first person; imp = imperative; interr = interrogative; loc = locative; m = masculine; neg = negative; sg = singular; M = homorganic nasal.

## Notes

1. An earlier version of this paper was presented at the 1st National Conference of Telugu Linguists' Forum, held during November 6-7, 2007, organized by CALTS, CDE, and IL-IL-MT Project, University of Hyderabad, Hyderabad.

2. For an earlier discussion of topic and focus in Telugu, see Ramarao (1999: 7-8) and Krishnamurti and Gwynn (1986: 311).

3. For a detailed discussion of subject in Telugu, see Vijayanarayana (2002).

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### Appendix

(Sample textual illustrations; transliteration and emphasis are mine)

***With a comma:***

"... ***vēNu lēDū, vāDu*** ... *pensiltō ikkaDa poDicāDu.* ..." (shrīkāMt rāju, 2007, p. 12)

"***ippuDu mīru dāruNaMgā hatya cēsina dōma uMdē, dāni*** *kāTuvallē ...*" (cakrapāNi, 2006, p. 8)

"... ***ā triguN lēDu, vāDu*** *vīLLu cūcina ammāyini cēsukōDaTa, ...*" (lakSmī rājēshvari, 1994, p. 4)

"...***ā DākTar gāDunnāDē, vāDikēM*** *telusu kaLāsulni gūrci! ...*" (Stevenson, 1982, p. 26)

"***ā Tām mōrgan unnāDē,*** *maMcivāDu, nammadaginavāDu, ...*" (Stevenson, 1982, p. 64)

***With a question mark:***

*"pōnī maTTigōDa kaTTukuMdāM" kharcu iMkā bāgā takkuvavutuMdani annāDu kapūru.*

*"**maTTigōDā?** assalu vaddu" badulu ceppēDu darbārā.* (dhir, 1995, p. 127)

*"nīku jītaM sariggā labhistōMdā?" doMga sānubhutigā aDigāDu.*

*"**jītamā? adi** mēM muMdē tīsēsukuMTāM. ā tarvātē khātādārlaku Dabbu cellistāM. ..."* (bhaT, 1995, p. 9)

***With an exclamatory mark:***

*"ēM, maLLī raghu ēmannā -" ani ardhōktilō āgāDu reDDi.*

*apahāsyaMgā balarāmayya, "**raghu! vāDu** nā koDuku anna saMgatē maricipōyānu. ..."* (Samantha, 1968, p. 8)

*"**sūryaprakāshamēnā!** parama dagulbājī lāyaru" annāDu lakSmīnarasayya.* (vīrājī, 1967, p. 94)

*ā eTeMDarnē aDigāDu "amar bābekkaDa?" ani.*

*"**amarbābugārā! āyan**eppuDō riTairayyāru"* (jarāsaMdha, 1995, 45)

***With period marks (dots):***

*"appuDēM jarigiMdē? bāva kālū ceyyī gaTTigā vunnāyā lēdā? dhanalakSmamma aDigiMdi.*

*"**bāvā! bāvēmō .... tānu** geMtēsi, nannu ...nannū okkasāri ..." shashirēkha kaMtalō siggumuMcukocciMdi.* (vīrājī, 1967, p. 69)

*"aMtā voccēshārā?"*

*"**bācamma lēdū? musildi ... dāniki** jaraM ...vāraMrōjulniMcī lēvakuMDā paDivuMdi. adi kanipiMcaTaM lēdu mari..."* (subbārāmayya, 1990, p. 177)

***Without any punctuation mark:***

*"jim! **smāleT unnāDē** nākaMTē, Trelānī kaMTē diTTamaina maniSi. ..." annāru DākTarugāru.* (Stevenson, 1982, p. 128)

*"**ā vedhava yevaDō vāNNi** tīsukuni vacci .. kāLLu kaDigi, ..."* (vīrājī, 1967, p.125)

*"**doMga rāskels, khūnīkōru vedhavalu, blākmeyilarsu vīLL**aMdari cirunāmālu ..."* (vīrājī, 1967, p.109).

# IMPACT OF ORIYA ON GANJAM TELUGU: A STUDY IN CONTACT AND CONVERGENCE*

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## ABSTRACT

The paper addresses the convergent changes that have taken place in a displaced Telugu dialect spoken by the Telugu speakers in Ganjam district of Orissa. The data was collected from 100 informants in 10 centers of Ganjam district. The casual speeches of these informants were tape-recorded and transcribed. The study shows that due to the contact with Oriya a non-genetically related language certain structural changes have taken in the Telugu dialect. Some of these features are: (i) use of dative for accusative case, (ii) absence of plural suffix on the head NP and modifier, (iii) absence of oblique form in the plurals, (iv) copula constructions, tag questions, (v) relative clause construction type, (vi) use of past verbal adjective for habitual adjective, (vii) use of reflexive *kooni* for past participle, etc, are some examples for Oriya impact. There is high degree of translatability from Oriya to Ganjam Telugu, so much so that simple, morph-by-morph substitution is possible. Even though the contact languages belong to two genetically unrelated language families, they have similar grammatical categories and identical constituent structures.

## 0. INTRODUCTION

In Bilingual/Multilingual communities many people, especially the minority language speakers have to learn two or more languages. The minority speakers acquire a second language, often the majority language, to participate in the main stream society, whereas the majority language speakers have the choice to learn the minority language. In this context it is important to note that interference occurs when two languages are in contact. In other

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words, this occurs in a bilingual or multilingual situation. The speakers of one language adopt and use features from the other language(s). These adopted features contribute to certain changes at the phonetic, grammatical and lexical levels. The adopting of such loan usages is known as 'assimilation of loan usages' or 'nativization of loan usages'. In language contact situation this is the most common process. The following section presents the related concepts such as convergence, interference etc.

## 1. Convergence and Interference

Convergence, according to Diebold (1968) is a sociological situation in which transfer of elements produces a systematic change which involves a degree of merging of two separate systems. In this sociological situation the same individual learns elements from a linguistic or cultural system other than his native system. This learning situation is promoting 'language contact', induces bilingualization and the individuals involved are bilinguals, the resultant linguistic change is borrowing or interference.

Southworth and Apte (1977: 4) refer to it as 'a tendency to carry over phonetic, grammatical, and semantic features of one language into another while retaining the lexical form of the second language more or less intact'. They also classified convergence into different types. Relationships between the languages involved in convergence are again further divided into internal and external convergence. The former dealing with varieties of the same language, particularly those in a diglossic relationship, the latter dealing with the different varieties of languages in contact.

Structural effects of convergence: Hymes(1971: 74-77) has given a method of classifying structural effects of convergence. His scheme depends on a division of a language into four components: phonetics, lexicon, syntax, and semantics. In South Asian languages, lexicon is preserved and all other components change, whereas in European languages there is "inter translatability", i.e. convergence in semantics but the other three components are unaffected (Sothworth and Apte, 1977: 5).

Degree of convergence: any particular instance of convergence can be usually described in one of three ways: X converges toward Y, Y converges toward X, or X and Y move together in a new direction (Southworth and Apte 1977).

Annamalai (2001) draws a distinction between convergence, and interference. He states that in language learning situations, there is interference of first language or mother tongue (L1) with the second or target language (L2). Therefore, L2 reflects features of L1. Since L2 is a new language learning situation, in the process of learning L2, the learner creates an inter-language (Selinker, 1972). This may be L2, with features of L1 or a new construct with some features found neither in L1 nor in L2. Annamalai (*ibid*) mentions that interference will take place in formal as well as informal learning of language, but many of the studies are in the context of formal language learning situations. Further, Annamalai observes that the transference of linguistic features in interference is unidirectional and it is always towards the target language, irrespective of the social relation between the speakers of the first and second languages. The sociolinguistic situation obtained when interference takes place is of incipient bilingualism. Interference occurs in the process of the learner becoming a balanced bilingual. It suggests that interference is a transient phenomenon expected to reduce when learning progresses and is completely eliminated when the learning is successfully completed. This is, however, only an ideal situation, as studies have shown that the acquisition of native like competence in a second language – without interference by an adult is an exception rather a general rule. Interference may be more persistent in phonetics and phonology than in other components of grammar. But in the case of children it is however different. Children who learn a second language before the critical period may have interferenceless competence in L2 equivalent to that of native speakers. Interference is not passed on from one generation to another when successive generations learn the same second language. We can also find uniform patterns of interference in the second language by the speakers of the same first language. Studies by Fillmore (1979) also point out that there are systematic

differences between individuals based on different learning strategies adopted by them. Based on these observations it is possible to say that interference is a process motivated, both by the individual's learning strategies and the community's shared linguistic experience. Further Annamalai (ibid) mentions that interference in informal language learning may not be for a short period, but may lead to external and stable borrowing. This may even lead to convergence, which can happen under certain social conditions and contact situations. The social conditions may be that there is no social pressure like discrimination or rewards like prestige for attaining native like competence in L2, and there is no reinforcement through literacy. The contact situations may be such that L2 is functionally restricted to the bilingual and is not used by him in formal contexts. This will be the typical situation when both communities in contact are not literate or when either of the two languages is not socially important from the material point of view. Weinreich states that interference can be bi-directional when both L1 and L2 are learnt simultaneously and informally. As opposed to this, convergence will be unidirectional only when 'such non-structural factors as speaker's linguistic life histories and the cultural setting... are decisive' (Weinreich, 1953).

The study conducted by Gumperz and Wilson (1971) in Kupwar, a village in Maharashtra-Karnataka border shows that the Marathi language of commerce, schooling and administration of the area converged towards Kannada. Similarly Kannada, the language of the majority who own the land had in certain respects converged towards Marathi. Urdu the minority community language users who also owns the land, has converged towards Marathi, and Kannada in a large number of features. It is as expected because of its minority status. The convergence of Marathi, the dominant language of the area because of its official status and role in the larger region, is contrary to the suggestion made above, about the direction of convergence towards the dominant language. Annamalai (*ibid*) states that in this case, the dominance is fluid in this village due to the conflicting dominating roles of Kannada at the village level and Marathi at the regional level. From this it is clear that the social role of language does not play a role in interference as it does in convergence.

Annamalai (2001) suggests the following feature matrix for studying the linguistic processes that happen in the context of language contact phenomena. These features even though are not absolute; they will help in understanding processes and to find out the similarities and differences in them. He agrees that there is fuzziness among these concepts, but to understand the Sociolinguistic contexts of language contact and the linguistic consequences of such contacts these will be helpful.

## 2. A Feature Matrix of Different Language Contact Phenomena

**Feature**

| **Nature of Contact** | **Interference** | **Pidginization** | **Code-mixing** | **Borrowing** | **Convergence** |
|---|---|---|---|---|---|
| Social status of languages | continuous not relevant | intermittent relevant to happening | continuous relevant to direction | continuous relevant to direction | continuous relevant to direction |
| Nature of bilingualism | elite and incipient | elite and incipient | mass and stable | stable | stable |
| Critical learning | minimal and specific communication | intensive communication | learned communication | intensive extensive tion tion | functional context communica- |
| Transmission | cyclic, repeated every learner | linear, but not cumulative | cyclic, repeated by every speaker | linear and additive | linear and by cumulative |
| Direction | L2 is affected | L2 is affected | L1 is affected | L1 is affected | L1 is affected |
| Stability | transitional | stable | stable | stable | stable |
| Mode of change | transfer of rule | formation of rule | transfer of form | transfer of form | transfer of rule |
| Extent of grammatical change | Limited | extensive | none | marginal | extensive |
| Process of reduction/ removal of change | Standard-ization | creolization | purism | purism | purism |

With this theoretical background in view, the following sections will focus on the impact of Oriya on GT (Ganjam Telugu) in the following sections.

## 3. METHODOLOGY

### 3.1 Selection of Areas

The data presented here was collected initially from the field survey during 1990-1992 and again revisited during the years 2001-2005 to check and consolidate. The present study focuses on the border region of the undivided Ganjam district of Orissa from the following centers: (i) Brahmapur (Berhampur), (ii) Chatrapur, (iii) Ghokrigoda (iv) Girisola, (v) Gopalpur, (vi) Govindapur, (vii) Kalyanpur, (viii) Noliyanuagam, (ix) Parlakhimidi and (x) Podapadar. These places have a sizeable Telugu population and it was noticed that the Telugu dialect spoken by these people is different from that of the mainland Telugu and it retains certain old Telugu dialectal features. Therefore, these centres were selected for data collection.

### 3.2 Selection of Informants

The GT informants are drawn from different social back-grounds. They are: illiterate, semiliterate, and literate and most of them are bi-lingual in Telugu (mother tongue) and Oriya and some are multilingual. They also belong to different castes i.e. Forward Caste (F.C), Backward Caste (BC) and Scheduled Caste (SC) different age groups i.e. between 12-80 years, sex, and income, number of years of migration and from different occupations. From each centre a minimum of ten informants were selected using the random sample method and the total number is hundred. So, altogether 100 informants were interviewed. Out of them, 54 are male, and 46 female; 45 are educated and 55 are uneducated; 35 belong to FC, 47 to BC and 18 to SC. The casual speech pertaining to narrations, stories, and daily activities of these informants was tape-recorded and transcribed. The data so collected was used for studying the convergent changes in GT.

## 4. Convergence of GT with Oriya

The following example from Kupwar study (Gumperz and Wilson, 1971) shows structural convergence. Each of the languages in contact retains their lexical material but the structures are alike. Standard Kannda maintains the distinction between dative and accusative cases for a human object of the following sentences, while Urdu and Marathi have only a dative case. Due to contact with Urdu and Marathi the Kupwar Kannada (Ku. Ka.) lost accusative case distinction.

(1) 'Seeing the poor man, he gave'

| | | | | | | |
|---|---|---|---|---|---|---|
| i) | HiUr. | *gərib* | *admi-**ko*** | *deekh- kər* | *diya* | *th-a* |
| ii) | Ku.Ur. | *gərib* | *admi-**ko*** | *deekh –ke* | *die* | *ta* |
| iii) | Ku Ma | *gərib* | *mansa-**la*** | *bəg un* | *dil* | *hota* |
| iv) | Ku. Ka. | *gərib* | *mansya-**gə*** | *noodi* | *kwatt* | *ida* |
| | | poor | man –to | having seen | gave | he |

A similar kind of example for structural convergence for accusative and dative is noticed in G.T. dialect. Standard Telugu has an accusative (*-ni/-nu*) and dative case suffix (*-ki/-ku*) separately. But, G. T. dialect lost this accusative and dative contrast for animate objects in the following examples (2) and (3).

## 5. Use of Dative for Accusative

2) 'This boy is beating the dog'

| | | | | | |
|---|---|---|---|---|---|
| (i) | MST. | *ii* | *pillawaadu* | *kukka-**nu*** | *kodtunnaadu* |
| | | this | boy | dog-accu. | beating |
| (ii) | GT. | *ii* | *pilladu* | *kukka-**ki*** | *kodtnaadu* |
| | | this | boy | dog-dat. | beating |
| (iii) | G..Or. | *ee* | *pila* | *kukurɔtaa-**ku*** | *baadɔuci* |
| | | this | boy | dog-to | beating |
| (iv) | S.Or. | *ee* | *pila* | *kukurɔtaa-**ku*** | *baadɔuci* |
| | | this | boy | dog-to | beating |

3) 'That boy also scolded that woman'

| | | | | | |
|---|---|---|---|---|---|
| (i) MST. | *aa* | *pillawaaḍu* | *kuuḍa* | *aaḍa* | *maniṣi-**ni** tiṭṭǣḍu* |
| | this | boy | also | female | person-acc. scolded |
| (ii) GT. | *aa* | *pilḷaḍu* | *kuuḍa* | *aaḍa* | *maniṣi-**ki** tiṭṭǣḍu* |
| | this | boy | also | female | person-dat. scolded |
| (iii) G.Or. | *se* | *pila* | *bi* | *se strilokɔ-ku* | *gaḷidela* |
| | this | boy | also | woman-dat. | scolded |
| (iv) S.Or. | *se* | *pila* | *bi* | *se strilokɔ-ku* | *gaḷidela* |
| | this | boy | also | woman-dat. | scolded |

Manda, a South-Central Dravidian language also does not contain a separate case suffix for accusative (Ramakrishna Reddy, 1980). The dative case suffix has been generalized for the accusative. The dative case which is used for locative is extended and used for non locative in this dialect. This is because of Indo-Aryan influence; in this case it is Oriya.

## 6. Use of Locative for Dative

For dative case suffix of MST, in GT dialect locative case suffix is used in the examples (4), (5) and (6). This is due to the use of [*re*] 'in' in Oriya which is influencing the Telugu of Ganjam Telugus.

(4) He has put on slippers to feet'

| | | | |
|---|---|---|---|
| (i) MST | *paadaala-**ku*** | *ceppulu* | *wesukunnaaru* |
| | feet-dat | slippers | put-on-aux.- III hum.pl |
| (ii) GT. | *paadaal-**loo*** | *ceppul* | *eeskooynaaru* |
| | feet-in | slippers | put-on-aux.- III hum.pl |
| (iii) G.Or. | *padɔ-**re*** | *cappal* | *pindhici* |
| | feet-in | slippers | put-on |
| (iv) S.Or. | *padɔ-**re*** | *cappal* | *pindhici* |
| | feet-in | slippers | put-on |

(5) 'He has put on glasses to eyes'

| | | | |
|---|---|---|---|
| (i) MST. | *kaḷḷa-**ku*** | *addaalu* | *peṭṭukunnaaḍu* |
| | eyes- to | glasses | put on |
| ii) GT. | *kaḷḷa-**loo*** | *addaalu* | *peṭṭukooynaaḍu* |
| | eyes- in | glasses | put on |
| (iii) G.Or. | *akhi-**re*** | *cɔsma* | *pindhici* |
| | eye- in | glasses | put on |
| (iv) S.Or. | *akhi-**re*** | *cɔsma* | *pindhici* |
| | eye- in | glasses | put on |

(6) 'He has tied a cradle to the tree and he is swinging'

| | | | | |
|---|---|---|---|---|
| (i) MST. | *ceṭṭu **–ku*** | *uyyaala* | *kaṭṭ-I* | *uugu-tunnaa-ḍu* |
| | tree- to | cradle | tie-past.part | swing-dur.-III masc.sg |
| (ii) GT. | *ceṭṭu-**looṭu*** | *uyyaala* | *kaṭṭ-i* | *ũũg-tnaa-ḍu* |
| | tree-in | cradle | tie-past part. | swing-dur.-III masc.sg |
| (iii) G.Or. | *gɔchɔ-**re*** | *doḷi* | *bandhi* | *juluuci* |
| | tree-in | cradle | tie-past part. | swing-dur. |
| (iv) S.Or. | *gɔchɔ-**re*** | *doḷi* | *bandhi* | *juluuci* |
| | tree-in | cradle | tie-pt.part | swing-dur. |

## 7. Absence of Plural Suffix on Noun

In sentence (7) the head in the NP and the modifier are in plural in MST, but in GT the modifier is in plural, whereas its head is in singular. Similar kind of structure exists in Oriya, which might have resulted due to contact with the Munda languages. The examples (8) and (9) from Bonda and Korku (Mohanty, 2007) show similar structures.

7) 'There are nine persons'

| | | | |
|---|---|---|---|
| (i) MST | *tommidi **mandi*** | *manuṣu-**lu*** | *unnaaru* |
| | nine hum. classifier | person-pl.suffix | are |
| (ii) GT. | *tommidi* | *maniṣi* | *unnaaru* |
| | nine | person | are |
| (iii) G.Or. | *nɔ* | *jɔŋɔ* | *ɔchɔnti* |
| | nine | person | are |
| (iv) S.Or. | *nɔ* | *jɔŋɔ* | *ɔchɔnti* |
| | nine | person | are |

(8) 'All men'

| Bonda | |
|---|---|
| *gulaay* | *rema* |
| all | man |

(9) 'Two trees'

| Korku | |
|---|---|
| *baari* | *sin* |
| two | tree |

Mohanty (2007) states that the contact between Oriya and the neighbouring Munda and Dravidian languages has led to the convergence. He lists out a number of features to strengthen his point. The number agreement in Oriya on the finite verb is with the animate subjects; depending upon the subject's animacy, its finite verb will have two different forms in singular and in plural. This is a characteristic feature of Munda languages, which Oriya has acquired from them. */maane/* is the plural marker for human and */guraa/* for non-human. The grammarians of Oriya language called these two plural forms as classifiers. This is also a characteristic feature found in most of the Munda languages.

## 8. Oblique Formation

The plural oblique stem in MST is formed by changing the plural suffix [*lu*] or [*l̪u*] to [*la*] or [*l̪a*] in MST, whereas in GT they do not undergo this change, which might be due to Oriya influence. In example (10) MST has *eḍ**la**-baṇḍi* 'bullock's cart', but the use of uninflected form of the plural is very common in GT i.e. *eḍ**lu**-baṇḍi* 'bullocks cart'.

10) 'The boy is sitting on the bullock cart'

| | | | | | |
|---|---|---|---|---|---|
| (i) MST. | *pillawaaḍu* | *eḍ**la**-baṇḍi* | *miida* | *kuurcooni* | *unnaaḍu* |
| | boy | bullocks'-cart | on | sit-pt.part. | is-non.fut. IIIsg.masc |
| (ii) GT | *pillawaaḍu* | *eḍ**lu**-baṇḍi* | *miida* | *kuukooynaaḍu* | |
| | boy | bullocks-cart | on | sit-past.tense- IIIsg.masc | |
| (iii) G.Or | *pilaʈa* | *sɔgɔḍɔre* | | *bɔsici* | |
| | boy | bullock's-cart on | | sit-past | |
| (iv) S.Or. | *pilaʈa* | *bɔlɔdɔgaʈire* | | *bɔsici* | |
| | boy | bullocks-cart on | | sit-past | |

## 9. Purposive constructions ('For doing–in order to do')

In MST the purposive constructions have the structure: Verbal noun + *aaniki*, whereas in GT there is no verbal noun instead it is verb stem+ *anduku*; see example (11)

11) 'We should try to stand on our legs'

| | | | | | |
|---|---|---|---|---|---|
| (i) MST | *mana* | *kaaḷḷa* | *miida* | ***nilabaḍa-ʈaani-ki*** | *prayatninc-aali* |
| | we(incl) | legs | on | stand-gerund-to | try- oblig. suffix |
| (ii) GT | *mana* | *kaaḷḷa* | *miida* | ***nilabaḍan-andu-ku*** | *prayatninc-aali* |
| | we(incl) | legs | on | stand-aux.infin-for that reason-to | try- oblig. suffix |
| (iii) G.Or. | *nijo* | *goḍɔ-re* | *ʈhiya-hebaku* | *ceesʈakɔriba* | |
| | we | legs-on | stand-for—to | try- oblig. suffix | |
| (iv) S.Or. | *nijo* | *goḍɔ-re* | *ʈhiya-hebaku* | *ceesʈakɔriba* | |
| | we | legs-on | stand-for—to | try- oblig. suffix | |

## 10. Obligatives

In MST the obligative is formed by adding the suffix *–aali* to the infinitive form of the verb, whereas in GT it is formed by adding raaniki to the infinitive form of the verb + *paḍtadi.* This structure is similar to Oriya which is illustrated in Example (12).

12) 'You have to do that work'

| | | | | | |
|---|---|---|---|---|---|
| (i) MST. | *miiru* | *aa* | *pani* | *ceyy-**aalsi*** | *wastundi* |
| | you(pl.) | that | work | do-oblig. | come-dur.-III.n.masc.sg. |
| (ii) GT. | *miiru* | *aa* | *pani* | *cey-**raa-niki*** | ***paḍtadi*** |
| | you(pl.) | that | work | do-come-pur. | fall-fut.hab.-III.n.masc.sg |
| (iii) G.Or. | *tumoku* | *se* | *kamo* | *kɔribaku* | ***pɔḍibɔ*** |
| | you(pl.) | that | work | do-pur. | fall-oblig. |
| (iv) S.Or. | *tumoku* | *se* | *kamo* | *kɔribaku* | ***pɔḍibɔ*** |
| | you(pl.) | that | work | do-pur. | fall-oblig. |

## 11. Concessive Constructions

In MST these are formed by adding the suffix *–inaa* to the verb stem, whereas in GT these are formed by adding the conditional suffix *–itee* + *sari* which is similar to the Oriya form, in example (13).

13) 'Even if you come or not it's all right.'

| | | | | |
|---|---|---|---|---|
| (i) MST. | *miiru* | *wacc-inaa* | *raa-k-**unna*** | *parwaaleedu* |
| | you(pl.) | come-even | not come | it is all right |
| (ii) GT. | *miiru* | *was-teesari* | *raak-**pooteesari*** | |
| | you(pl.) | come-cond.suf. | not come-go-if | it is all right |
| (iii) G.Or | *tume* | *assile bi ʈhik* | *na assile **bi ʈhik*** | |
| | you(pl.) | come-cond.suf. all right | not come-go-if | it is all right |
| (iv) S.Or. | *tume* | *assile bi ʈhik* | *na assile **bi*** | ***ʈhik*** |
| | you(pl.) | come-cond.suf. all right | not come-go-if | it is all right |

## 12. Future-habitual vs. Past Verbal Adjective

Verbal adjectives in MST are classified into four types (Krishanmurti & Gwynn, 1985) they are: (a) past, (b) durative, (c) future-habitual and (d) the negative verbal adjective. These verbal adjectives are used to build a kind of descriptive noun by the addition of pronominal suffixes. These are called pronominalized verbal adjectives. For example: *ceppinawaaḍu* 'the having said man or the man who said' *ceppinadi* 'the having said woman/thing or the woman who said/ the thing which is said' When the future-habitual verbal adjective is followed by waa*ḍu* 'he', *waaḷḷu* 'they (hum.)', *(a)di* 'she/it', *avi* 'they (non-hum)' the resulting forms function as nominal predicates in the main clauses of conditional sentences. They can be inflected for I and II persons also.

| | |
|---|---|
| *ceppeewaaḍu* | *'he* would have said' |
| *ceppeedi* | 'she/it would have said' |
| *ceppeewaaṇṇi* | 'I would have said' |

Krishnamurti and Gwynn (*ibid*) call them as contra-factual condition tense a special type of finite verb. This type of finite verb has the meaning of 'would (have)/might (have)' occurring in the main clause of a conditional sentence. In GT for the contra-factual condition tense i.e., the pronominalized past verbal adjective is used, which is illustrated in examples (14) and (15)

14) 'Plate means the one in which we eat meals'

| | | | | | |
|---|---|---|---|---|---|
| (i) MST. | *paḷḷem* | *an-ʈee* | *manam* | *annam* | ***tin-ee-di*** |
| | plate | say-cond. | we | rice | eat-fut.hab.part. III.n.masc.sg. |

| | | | | | |
|---|---|---|---|---|---|
| (ii) GT. | *paḷḷem* | *antee* | *manam* | *annam* | ***tin-in –di*** |
| | plate | say-cond. | we | rice | eat-pt.part. III.n.masc.sg. |
| (iii) G.Or. | *kɔntso* | *bɔile* | *jothire* | *bhatɔ* | ***khai-ba/khaibarɔ*** |
| | plate | say | we | rice | eat-past |
| (iv) S.Or. | *pleṭ* | *bɔile/mane* | *jouthire* | *bhatɔ* | ***khai-ba*** |
| | plate | say | we | rice | eat-past |

15) 'My mother used to give money daily'

| | | | | | |
|---|---|---|---|---|---|
| (i) MST. | *naaku rooju ḍabbulu* | | *icc-**ee-di*** | *maa* | *amma* |
| | me-to daily money | | give-fut.hab.adj. IIIsg.n.masc. | my | mother |
| (ii) GT. | *naaku rooju paysalu* | | *icc-**in-di*** | *maa* | *amma* |
| | me-to daily | | money give-tense-IIIsg.n.masc. | my | mother |
| (iii) G.Or | *mɔte* | *sobudin* | *pɔisa* | *dela* | *mo* | *maa* |
| | me-to | daily | money | give-past | my | mother |
| (iv) S.Or. | *mɔte* | *sobudin* | *pɔisa* | *dela* | *mo* | *maa* |
| | me-to | daily | money | give-past | my | mother |

In MST the nominalized form of 14(i) is in the non-past, whereas that of G.Or. 14(iii) uses the past tense form which feature is adopted by the Ganjam Telugu as in 14(ii).

## 13. Use of Reflexive Verb for Past Participle

In MST the past participle form is formed by adding [*i*] to the verb stem, whereas in GT the reflexive verb *kon* 'to do something for oneself' is used, with the past participle, for even non-reflexive verbs. This may be due to the particle [*kini*] in Oriya, which has the completive meaning.

16) 'With great difficulty he asked'

| | | | |
|---|---|---|---|
| (i) MST. | *caalaa* | *kaṣṭapaḍ-**i*** | *aḍigāḍu* |
| | lot | difficult-fall aux.past participle | ask-past tense-IIIsg.masc. |
| (ii) GT. | *sāna* | *kaṣṭapaḍ-**kooni*** | *aḍigāḍu* |
| | lot | difficult-fall aux.-refl. past participle | ask-past tense-IIIsg.masc. |
| (iii) G.Or. | *bɔhut* | *kɔsṭɔpɔḍi-kini* | *pɔcarila* |
| | lot | difficult –completive | ask-past tens-IIIsg.masc. |

| | | | |
|---|---|---|---|
| (iv) S.Or. | *bɔhut* | *kɔsʧɔpɔɖi-kini* | *pɔcarila* |
| | lot | difficult -completive | ask-past tens-IIIsg.masc |

The construction in 16 (ii) of Telugu adds the auxiliary verb *kooni* to the main verb *kaṣʧapaḍ*. The *–kooni* is the past form of the reflexive verb *kon / konu* in Telugu and this is added on the lines of G.Or. which also uses a past participle *kini*.

## 14. The Complementizer *ani* 'to say'

Ramarao (1968) discussed about complementizer in Telugu. He has used the term nominalizer almost in the sense of complementizer. He has dealt with three kinds of nominalizers in Telugu: (i) the dubitative nominalizer [*-oo*], (ii) the finite nominalizer [*–ani*] and infinitival [*-ʧam*] complementizer.

According to Ramarao the finite complementizer *ani* is of three types. (i) *ani* as a 'factitive' nominalizer, (ii) *ani* as a 'quotative nominalizer, (iii) [*ani*] as an 'intentive nominalizer'. He distinguishes between (i) and (ii) types in the deep structure by having features such as fact and quotative.

Ramarao mentions that *ani* may sometimes be replaced by an adjectival form viz. [*anee* or *anna*] which modify nouns like *sangati* `fact'.

The Telugu sentences exemplified below contain the finite complementizer *ani.*

(i) *siita mancidi ani raamuḍu annnaaḍu*

(ii) *raaju sinimaa cuusǣḍu ani naaku telusu*

These sentences have an embedded clause, which is finite in nature. The complementizer used *ani* in the above sentences is a past participial form of the verb *an* 'to say' in Telugu and is usually labeled as the 'quotative'.

The *ani* complementizers occur as objects of verbs like *vinu* 'hear' *nammu* 'believe', *aasincu* 'hope' *aḍugu* 'ask' *anu* 'say' *anukonu* 'think', *cepp* 'teli' *raas* 'write', *maracipoow* 'forgeı' etc.

*raamu siitani pe[[i ceesukunnaaḍani neenu vinnaanu*
'I heard that Ramu married Sita'

Transitive verbs like *neerpu* 'teach', *neercukonu* 'learn', *puurticees* 'finish', *praarambhincu* 'start', *maaniwees* 'give up', *muginc* 'end'; *modalupeṭṭu* 'start' etc. do not allow *-konu*. This type of a complement clause as their object as sentence (iii) illustrates.

(iii) **raamuḍu akka ḍillii we[[indani puurticeesāḍu*
Ramu's sister Delhi went that completed

*-ani* complements can not be used with most of the abstract nouns such as *alawaaṭu* 'habit', *iṣṭam* 'liking', *sukham* 'happiness', *maamuulu* 'ordinary'.

In Telugu the finite complementizer [*ani*] may be replaced by an adjectival form [*anee* or *anna. anna*] which consists of *an+i+na* 'say+past participle marker+ adjectival participle marker. In speech [*-i*] is usually dropped. *anee* consists of *an+ee* 'say + habitual participle marker'. With such adjectival forms an abstract noun such as *sangati* 'fact', *maaṭa* 'thing' etc. are used. The following sentence illustrates the use of *anee* and *anna* in Telugu.

(iv) *aayana tirupati we[[i{anee} sangati winnanu*
*{anna}*
{comp}

[*an[[ee*] the conditional form of the verb 'to say' in Telugu is used in sentence (v).

(v) *siitaki gulaabi puulu peṭṭukooṭam (an[[ee) iṣṭam*

On the other hand, there are predicates with which the use of *an[[ee* is obligatory e.g. *iirṣya* 'jelousy', *ciraaku* 'irritation' *mooju* 'fondness' etc. as sentences (vi) and (vii).

(vi) *raajuku basloo we[[aṭam* [*an[[ee*] *ciraaku*

(vii) *raajuku kotta baṭṭalu konaṭam an[[ee mooju*

In light of the above discussion on [*ani*] in MST, let us study it's use in GT. The following sentence (17) illustrate the use of

[*anukooni*] *in* place of [*ani*] in GT. But [*anukoonu*] has the meanings of intention, to say to one'self, think, consider, suppose etc. in MST.

17) 'He said that, hey! it is with me, but you pay'

| | | | | | |
|---|---|---|---|---|---|
| (i) MST. | *naakaaḍa* | *undi* | *kaṯṯuraa* | *an-**i*** | *annaaḍu* |
| | my with | is | pay-hey! | say-past participle | say-non.fut-IIIsg.masc |
| (ii) GT. | *naakaaḍa* | *undi* | *kaṯṯubee* | *anu-**koon-i*** | *annaaḍu* |
| | my with | is | pay-hey! | say- refl.past participle | say-non.fut-IIIsg.masc |
| (iii) G.Or | *mɔtule* | *achi* | *bayndebee* | *beli-**kini*** | *kɔhila* |
| | my with | is | pay-hey! | say-compl. part. | say-non.fut |
| (iv) S.Or. | *mɔpəkhare* | *achi* | *deidee* | *bɔli-**kɔri*** | *kɔhila* |
| | my with | is | pay-hey! | say-compl. part. | say-non.fut |

## 15. Indefinite Human Plural vs. Interrogative Pronoun

For the indefinite human pronoun ***kondaru*** 'some people' of MST, in GT the interrogative pronoun ***ewḷu (ewaru)*** 'who' is used, which is due to *ketejɔŋɔ* 'how many persons' form of Oirya (see example 18)

In MST where there is an oblique form (***paala-poḍi***) of the plural noun there is no oblique form in GT (***paalu-guŋḍa).***

18) 'Some people gave rice, some flattened rice, and some gave milk powder to the children'.

| | | | | |
|---|---|---|---|---|
| (i) MST. | *kondaru* | *biyyamu,* | *kondaru aṯukulu* | *kondaru pillalki* |
| | some | rice | some flattened rice | some children-to |
| | *paal-apoḍi* | *iwannii* | *iccæru* | |
| | milk-obl.-powder | all | give-pastIIIhum. pl | |
| (ii) GT | *ewḷu biimu, ewḷu aṯukulu* | | *ewuḷu pillalki* | *paal-uguŋḍa* |
| | who rice who flattened rice | | who children-to | milk- powder |
| | *iwannii* | *iccuŋḍri* | | |
| | all | give-past-IIIhum.pl. | | |
| (iii) G.Or | *ketejɔŋɔ* | *cauḷɔ* | *ketejɔŋɔ cuɾa ketejɔŋɔ* | *pilamanɔŋku* |
| | who | rice | who flattened rice who | children-to |
| | *dudhɔguŋḍɔ e* | *sɔbu* | *dele* | |
| | milk- powder | all | give-past | |

| | | | | | |
|---|---|---|---|---|---|
| (iv) S.Or. | *ketejɔɳɔ* | *cauɭɔ* | *ketejɔɳɔ cuɽa ketejɔɳɔ* | | *pilamanɔŋku* |
| | who | rice | who flattened rice who | | children-to |
| | *dudhɔguɳḍɔ* | *e sɔbu* | *dele* | | |
| | milk- powder | all | give-past | | |

## 16. Tag Question

The tag question particle *kadaa* 'isn't it' is used in MST, whereas in GT the Oriya particle [*to*] is used. Oriya has [*tɔ*] 'isn't it' as the interrogative particle. This is reflected in example 19.

19) 'We have studied Oriya isn't it? Therefore, it has become a habit'

| | | | | |
|---|---|---|---|---|
| (i) MST. | *oḍiyaa* | *caduwukunnam-**kadaa,*** | *alawaaṭu* | *aypooyindi* |
| | Oriya | read-refl.- isn't it | habit | become-aux-past tense-IIIn.masc.sg. |
| (ii) GT. | *oḍḍem* | *caduwukooynaam-**to*** | *abyaasam* | *aypoynaadi* |
| | Oriya | read-refl.-isn't it | habit | become-aux-past tense-IIIn.masc.sg. |
| (iii) G.Or | *oṛia* | *pɔḍhicu-**tɔ*** | *ɔbhyasɔ* | *heijaici* |
| | Oriya | read isn't it | habit | become-aux-past tense |
| (iv) S.Or. | *oṛia* | *pɔḍhicu-**tɔ*** | *ɔbhyasɔ* | *heijaici* |
| | Oriya | read isn't it | habit | become-aux-past tense |

## 17. Copula Constructions

The verb 'to be 'has different manifestations in many languages of the world. The two main functions expressed are: one by the existential and the other by the predicative verb. The Dravidian languages have two verbs to express these semantic distinctions, whereas Hindi and English have only one verb. This difference at the lexical level, have interesting manifestations at the syntactic level of languages.

In Indo-Aryan languages NP–is-NP constructions like 'That is a tree' and 'NP exists' constructions contain a copula verb. But, in MST and other Dravidian languages in the above type of constructions, there is no copula. Even though, Oriya belongs to Indo-Aryan family it does not contain the copula in the above type of constructions, which might be due to Dravidian contact.

GT contains a copula verb *awu* 'to be/to become' in the durative form of the NP-is-NP construction. This resembles SVO type of order, which is prevalent in Munda languages. This may be a Munda feature, which Oriya got due to contact with Munda languages and from Oriya GT got it. For example:

(20) 'His native place is Hyderabad'

| | | | |
|---|---|---|---|
| (i) MST | *itanidi* | ——— | *haidraabaad* |
| | his | | Hyderabad |
| (ii) GT. | *itanidi* | ***awtnaadi*** | *haidraabaad* |
| | his | become-dur.-IIIn.masc.sg. | Hyderabad |
| (iii) G.Or. | *yaŋkarɔ* | ***hawc(h)i*** | *haidraabaad* |
| | his | becoming | Hyderabad |
| (iv) S.Or. | *yaŋkarɔ* | ***hawc(h)i*** | *haidraabaad* |
| | *his* | *becoming* | Hyderabad |

The verb *awu* 'to be/to become' has also the meanings such as 'finished' or be 'completed' in MST (Vijaya Lakshmi, 1982). But in these constructions the subjects, usually are process noun phrases. For example:

Present (Progressive)

| | | | | | | |
|---|---|---|---|---|---|---|
| MST | *ii* | *madhya* | *haidraabaadloo* | *caalaa* | *pramaadaalu* | *awutunnaayi* |
| | this | between | Hyderabad-in | many | accidents | happening |

'Now-a-days many accidents are happening in Hyderabad'

The verb *avu* 'to be/to become' in sentence (20) does not have a change of state of the object, nor 'completive', or 'finished' meanings it is unacceptable in MST. But in Oriya this type of sentences are acceptable and normal, therefore, this aspect needs a further detailed investigation.

### *18. Relative Clause*

In the Clausal type of Relative clauses, an interrogative pronoun or the correlative marker [*ee*] + the complementizer [*oo*] occur in the sub-ordinate clause and it is followed by the main clause beginning with the corresponding demonstrative pronoun or correlative marker (*aa*). But in GT dialect the complementizer [*oo*] is absent and on the interrogative pronoun the particle [*ki*] is added,

which is a Oriya particle. The particle [*ki*] in Oriya can occur as a post-position (e.g. *bhaiki* 'to brother'), or can occur as an interrogative pronoun (e.g. *ki kamɔ* 'what work?') Similarly in the sentence (22) apart from the absence of complementizer marker, the negative verb *leeḍu* 'not to be' is used in place of *kaaḍu* 'not to be/not to become' in GT.

(21) 'How much you know that much you tell'

| | | | | | |
|---|---|---|---|---|---|
| (i) MST | *niiku* | *enta* | *telus-oo* | *anta* | *ceppu* |
| | you-to | how much | know-comp.suf. | that much | tell |
| (ii) GT. | *niiku* | *enta-**ki*** | *telsu-ø* | *anta* | *seppu* |
| | you-to | how much-to | know | that much | tell |
| (iii) G.Or. | *tumɔku* | *jeti-**ki*** | *jaaɳi c$^{h}$u* | *sotti-ki* | *kɔhɔ* |
| | you-to | how much | know | that much | tell |
| (iv) S.Or. | *tumɔku* | *jeti-**ki*** | *jaaɳi c$^{h}$u* | *sotti-ki* | *kɔhɔ* |
| | you-to | how much | know | that much | tell |

(22) 'The person who has beaten me and went away, that person is not my brother'

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| (i) MST. | *ewaḍu* | *nan-**nu*** | ***koṭṭ-i*** | | ***weḷḷāḍ-oo*** | | |
| | who | me-accu. | beat-pt.part. | | went-past tense-comp.suf. | | |
| | ***waaḍu*** | *naaku* | *annadammuḍu* | | ***kaaḍu*** | | |
| | he | me-to | brother | | not to be | | |
| (ii) GT. | *ooḍu* | *naa-**ku*** | *koṭṭ-* | ***eldu-ø*** | ***aaḍu*** | *naaku* | |
| | who | my-dat. | beat-pt.part. | went | he | my-to | |
| | *annatammuḍu* | | ***leeḍu*** | | | | |
| | brother | | not to be | | | | |
| (iii) G.Or. | *jee* | *mote* | *baḍayla* | *seṭa* | *mo* | *bhaay* | ***nuhɛ*** |
| | who | me-dat. | beat-ø. | he | me | brother | not to be |
| (iv) S.Or. | *jee* | *mote* | *baḍayla* | *seṭa* | *mo* | *bhaay* | ***nuhɛ*** |
| | who | me-dat. | beat-ø. | he | me | brother | not to be |

**Peri-Clausal Type:** It is very similar to the Clausal type and more open than the first one and occurs in conversations. It expects a speaker and an addressee. It also implies that the event has occurred earlier and both are aware of it. The following sentences, which were noticed in the GT speaker's conversation, show that the relative marker [*ee*] is absent.

(23) 'The person who has beaten me that person is my brother'

| | | | | | |
|---|---|---|---|---|---|
| (i) MST. | *ippuḍu* | *koṭṭǣḍ-ee* | *aa maniṣi* | *naa* | *annatammuḍu* |
| | now | beat-past.tense.-relat.part. | that person | my | brother |
| (ii) GT. | *ippuḍu* | *koṭṭǣḍu-ø* | *aa maniṣi* | *naa* | *annatammuḍu* |
| | now | beat-past tense | that person | my | brother |
| (iii) G.Or. | *jee ebe* | *baḍaila* | *seṭa* | *mo* | *bhaai* |
| | now | beat-past tense | that person | my | brother |
| (iv) S.Or. | *jee ebe* | *baḍaila* | *seṭa* | *mo* | *bhaai* |
| | now | beat-past tense | that person | my | brother |

## 19. Use of Emphatic Particle

MST has the emphatic particle [*ee*], whereas in GT the Oriya particle [*tɔ*] is used. [*tɔ*] in Oriya apart from being used as interrogative particle can also be used as emphatic particle.

(47) 'We did not have it in the beginning'

| | | | |
|---|---|---|---|
| (i) MST. | *manak-**aytee*** | *modalu* | *leedu* |
| | us-to-if so | beginning | not to be |
| (ii) GT. | *manaku-**too*** | *modalu* | *leedu* |
| | us-to- emphatic | beginning | not to be |
| (iii) G.Or | *amɔrɔ-tɔ* | *muḷɔru* | *nahĩ* |
| | us-to-if so | beginning | not to be |
| (iv) S.Or. | *amɔrɔ-tɔ* | *muḷɔru* | *nahi* |
| | us-to-if so | beginning | not to be |

## 20. CONCLUSION

The Kupwar study by Gumperz and Wilson (1971) points out that constant code-switching by the speakers has far reaching effects on the grammatical systems of the languages in contact. A comparison of sentence–by-sentence natural conversation of texts of three varieties in contact reveals that there is a high degree of translatability from one variety to other variety, so much that simple morph by morph substitution is possible. Even though the languages in contact have distinct lexical items, still they have similar grammatical categories and identical constituent structures. Therefore, they have concluded that 'the codes used in code-switching situations in Kupwar have a single syntactic surface structure'. Similar kind of translatability between GT dialect and G..Or is observed in the casual speech of the texts studied. This is evident from the examples discussed above.

Gumperz and Wilson (*ibid*) further confirm the findings of Weinreich (1953), Emeneau (1962) and others that both lexical and grammatical items can be borrowed and that content word borrowing is more frequent. They also make a finer distinction and state that after content words in order of frequency are adverbs, conjunctions, postpositions and other similar function words. Derivative suffixes are third in the order.

In the foregoing sections I have presented some of the GT morpho-syntactic features, which have resulted due to contact with Oriya.

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**Abbreviations**

| | |
|---|---|
| HiUr. | Hindi-Urdu |
| Ku.Ur. | Kupwar Urdu |
| Ku Ma | Kupwar Marathi |
| Ku. Ka. | Kupwar Kannada |
| MST | Modern Standard Telugu |
| GT. | Ganjam Telugu |
| G..Or. | Ganjam Oriya |
| S.Or. | Standard Oriya |

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# PERCEPTUAL FACTORS IN PHONOLOGICAL DISORDERS: A TOOL FOR ASSESSING INPUT PHONOLOGICAL PROCESSING IN TELUGU-ENGLISH BILINGUALS

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## ABSTRACT

Spoken verbal communication involves perceptual, cognitive-linguistic and output mental processing plus oro-motor skills. Consequently, the search for a single ability in one of these aspects of speech processing that can explain phenomena in acquisition or disorder is misguided. During children's phonological development, the ability to process auditory-verbal stimuli (e.g. perceive speech contrasts in different co-articulatory contexts) might develop at a different rate from cognitive-linguistic ability (deriving the phonological constraints specific to the language(s) heard) or motor-speech ability. The rates of acquisition of these abilities might reflect individual differences between children due to aptitude or the language-learning environment (e.g. monolingual Vs bilingual). Yet, the topic of testing perceptual abilities as part of phonological assessment has not gained sufficient attention from clinicians or researchers in the field of communication disorders. After reviewing some of the debates on the role of perception in phonological disorders, an assessment procedure that focuses on one aspect of perceptual processing in Telugu-English bilinguals is described in this paper.

## INTRODUCTION & BACKGROUND

Theoretically, phonological disorders might be due to deficits in any of the mental abilities: speech perception, cognitive-linguistic ability, speech-output processing. Such deficits might occur singly or in combination (due to co-occurrence of deficits or

interaction between deficits). It is also probable that there are different types of deficits that can occur within any one generic set of abilities (e.g. accessing mental representations of words as opposed to having mental representations of words that are incomplete). Effective intervention depends upon careful assessment of the range of abilities involved in speech processing. Most of the commonly used assessment procedures today draw on formal linguistic (phonological) theories that focus mainly on the output and organizational abilities and ignore the perceptual aspects. The main aims of this paper are (1) to provide a brief state-of-the-art scene on this topic with reference to English speaking monolingual and bilingual children, and (2) to describe an assessment procedure applicable to the Indian context.

In the early 90's, a special clinical forum on phonological assessment and treatment was organized in the USA for promoting exchange of views on the topic (Fey 1992). The need for a broad based model of phonological disorders that makes a distinction among perceptual, cognitive-linguistic and production levels was emphasized by many of the participants of this forum (e.g. see Kamhi 1992). A decade later, in 2002 another special forum on phonology was organized, once again in the USA. A number of scholars who have been working in the area of phonological disorders were asked to describe what kind of assessment they would do for a specific child with expressive phonological problems within 60-90 minutes (see Williams 2002). In both these occasions a majority of the participants agreed that an assessment of perceptual capabilities is an integral part of phonological assessment, but failed to specify any procedures for testing children's perceptual capabilities. In the epilogue to the 2002 forum, Williams commented that most of the contributors still emphasized the organizational level of phonology and not the perceptual level although there is a shift from adherence to descriptive models (phonological process or rule based models) to explanatory models of assessment, and that the role of theory appears to be as relevant today as it was in 1992.

The decade between 1992 and 2002 is also the decade when

considerable technological advances have been made in the field of communication disorders which in turn contributed to new research into perceptual capabilities of very young participants, both monolingual and bilingual. However, the insights gained from such research have not been able to impact on the clinical practice sufficiently. One of the reasons for this is insufficient understanding of the nature of bi/multilingualism in relation to communication disorders in different societies. In their opening paper to the new Journal of Multilingual Communication Disorders, Muller (2003) talked of the need to raise the profile of multilingual individuals, communities and societies in the contexts of both research and clinical practice and that speech language pathologists, linguists, developmental and educational psychologists, and all others whose duties include the evaluation of, and intervention in human communication have a responsibility for this task.

It should be noted that hundreds of published reports of phonological analyses based on formal linguistic (phonological) theories are available with reference to monolingual English speaking children. Even though concerns were expressed that the complete reliance on formal theories and methodologies might help describe some of the patterns in the production data but that it cannot explain the source of the problem, process-based analyses continued to dominate the clinical scene till date. One of the earliest critiques of commercially available phonological analysis manuals for speech clinicians was that of Butcher (1989). The main points of his criticism are summarized below:

1. Most of the phonological profiles are restricted to examination of consonant articulations because they are easier to transcribe and fit into process-type analysis than vowels.
2. The acquisition of control over vowel length is crucial for signaling of final consonant distinctions and yet, these tests do not target high vs. non-high or front vs. back vowel contrasts.
3. Supra-segmental aspects of disordered speech are also

completely neglected once again due to difficulties in transcribing such data.

4. Purely impressionistic transcription used in isolation (that is, without support from instrumental analysis) can result in inadequate phonetic detail or even unreliable observations leading to over-diagnosis of phonological disorder.

5. The fact that all phonological contrasts do not convey the same functional load is completely ignored in these procedures.

6. The effect of the disorder on speech intelligibility is not adequately assessed.

7. The numbers in the charts tell us little about the child's perception of the consonants and little about his / her intelligibility in normal conversation, nothing about the phonetics of his / her speech and nothing at all about the etiology of the disorder.

8. Processes such as 'stopping' and 'fronting' are nothing but convenient descriptive labels for specific speech behaviours. Unless we investigate child's perception, speech motor control and overall intellectual ability, we cannot EXPLAIN anything using phonological process analysis.

Responding to some of the criticisms listed above, researchers also developed procedures for analyzing vowel errors (see Pollock and Keiser 1990; Pollock 1991) and some of the supra-segmental aspects of disordered speech. However, these procedures remained data-oriented in that they offered solutions to organize the data neatly with little, if any, insight into the nature of the disorder itself that is causing the problem. Further, these phonological process manuals generated limited data on individuals experiencing phonological disorder in a bi / multi-lingual environments (but see Yavas and Goldstein 1998 and Ray 2002).

Spencer (1988) argued that the generative theories tend to

sidestep the important learnability question and that the primary research question in the field of phonological disorders should be: what mental transformations are performed over phonological representations during that process of motor skill acquisition that constitutes the development of articulation? He took issue with the unstated assumption underlying applications of phonological process analysis – that the child has available a perfect perceptual command of the adult surface system of phonemic contrasts and that the problem with his / her own articulation is the result of applying phonological rules or processes to those 'perfect' representations. Subsequently, attempts were made to design phoneme discrimination tasks for English speaking communicatively impaired individuals (see for e.g. the test described by Tylor 1992). However, there is insufficient debate on the role of phoneme discrimination in developing and disordered phonologies in young children who are exposed to more than one language.

By mid-90's speech clinicians working in close association with the psychologists began to notice that children with expressive phonological impairments have difficulty identifying internal segments of which syllables are composed and that this in turn will have detrimental effect on other aspects of language, particularly, vocabulary acquisition, reading and spelling (see Bird, Bishop and Freeman 1995). There were attempts to subgroup disordered phonological systems of bilingual children using psycholinguistic approaches that make some reference to stored internal representations (e.g. Holm et al 1996-97). Others began to notice that the concept of sonority or perceived loudness of segments can influence production and segmentation of consonant clusters both in normally developing children and in those with expressive phonological disorders (see for instance, Barlow 2005; Ohala, 1995; Yavas and Gogate 1999).

There is yet another strand of research that suggests deficits in memory may underlie difficulties in phonological acquisition / processing. Some of these researchers began to use non-word

repetition tasks with phonologically disordered children. Their argument is best stated in Bowey (2001:444): "non-word repetition is a complex phonological processing task involving a number of different components including, speech perception, construction of a phonological representation within the phonological store, retrieval of that representation, assembly of articulatory instructions from the phonological representation and articulation itself". Some of her research has shown that concurrent association between non-word repetition and vocabulary is mediated by an underlying phonological processing ability, which may partially reflect the quality of available phonological representations. She held that non-word repetition and phoneme sensitivity both reflect that ability.

Van Bon and Van Leeuwe (2003) reported a study that was designed to establish the validity of phoneme recognition as an indicator of phonemic awareness in Dutch kindergarten children. This longitudinal study based on 171 students revealed that unlike phoneme segmentation task, phoneme recognition competence can develop in the absence of literacy skills. Prosodically controlled word and non-word repetition tests have been designed for English speaking children and described in Roy and Chiat (2004).

Phonological processing research dealing with word-level material suggested that there is a need to look at the contexts where certain phonological contrasts get neutralized. It was pointed out for instance, that the loss of phonological contrasts occurs in contexts in which perceptual cues to specific contrast are relatively weak (see Hume and Johnson 2001). Wright (2001:253) elaborated this point by discussing the concepts, contrast and cue thus: phonological contrasts are built on cues; there may be a *one-to-one relationship; a one-to-many relationship, or a many-to-one relationship between cues and contrasts.* In other words, the same aspects of the signal that provides the listener with information about one contrast may simultaneously provide the listener with information about neighbouring contrasts as well (one-to-many relationship). For instance, he cited the case of second formant

transitions out of a stop consonant's closure serving as cues both to the place of articulation of that consonant as well as to the quality of the vowel following the consonant. The amount of information a cue may carry is proportional to its importance to a given contrast in phonological processes. He argued that it is erroneous therefore to assume that there is a single invariant 'primary cue' underlying each contrast. He presented experimental evidence to show that consonant manner cues in fricatives and nasals have an inherent advantage over stop releases with respect to durational information as evident by their robustness in being able to survive greater environmental noise degradation. The weight a cue carries for a given contrast varies across syllable types, prosodic environments, and background noise conditions.

Cho and McQueen (2004) reported phoneme monitoring/restoration experiments designed to gain a better understanding of place assimilation and cluster reduction processes in Korean. They stated that velars are perceptually more salient than labials that in turn are more salient than alveolars and that in C1C2C3 clusters, Korean listeners benefited from the preservation of velars, but not from that of labials. They concluded that human speech recognition system is sensitive to the acoustic / perceptual properties of individual segments to a different degree, which is further modulated by the prosodic structure of a given language.

Cross-linguistic studies have revealed that place assimilation processes target nasals more often than stops in the languages of the world such that there exist an implicational relationship between nasals and stops: stops never undergo place assimilation in any given language unless nasals do so as well. But the question is, can one attribute this to weaker acoustic cues associated with nasals that make them more susceptible? Winters (2004) reported a study that investigated Dutch and English listeners to discriminate between nasals and stops of varying places of articulation in an AX discrimination experiment. In a separate experiment, Winters investigated the possibility that the difficulty of articulating

consonant clusters consistently and accurately might account for nasals' comparative susceptibility to place assimilation. The results of these two experiments revealed that in Dutch nasal-stop sequences had greater durational variability (in the production) than stop-stop sequences and that this difference explained the differential pattern of responses to place assimilation in the two languages suggesting that the cross-linguistic asymmetry between nasals and stops as targets of place assimilation may be motivated more by the difficulty of articulating nasals in consonant clusters than by listeners' relative inability to perceive their place of articulation correctly.

Rvachew, Nowak and Clutier (2004) compared two computer based intervention techniques designed to improve phonological awareness: one, targeting phonemic perception and another targeting vocabulary knowledge along with regular speech therapy were compared. The results of this study revealed that phonemic perception intervention significantly improved the effectiveness of speech therapy that is directed at remediation of children's articulation errors. They stated that there exists a relationship between phonemic perception and articulation accuracy on the one hand, and phonemic perception and phonological awareness skills on the other hand.

MacLeod and Stoel-Gammon's (2005) study on Canadian English and Canadian French monolinguals and bilinguals revealed that the bilinguals produced monolingual like phonemic contrasts and phonetic variation for all but the English voiced stops. The authors proposed that bilinguals strive to maintain acceptable language specific distinctions while simultaneously reducing the processing load by producing overlap in some contrasts.

It should be obvious from the brief review of literature presented above that there is a need to interrogate common place concepts such as 'minimal pair' and 'phonological process' by taking into account the listener's perspective.

## PHONEME DISCRIMINATION IN TELUGU / ENGLISH
### Rationale for the Proposed Tests

It should be noted that in the context of India, multilingualism is extremely common especially in the urban cities. Mani Rao and Mukundan (1996-97) for instance reported a study based on a survey of multilingual communication disorders in the city of Mumbai, India. They noted that the observed language use patterns among families of multilingual children with communication disorders in that city differ so much from the ones discussed in the Western literature that there is a need to set up new typologies of bi/multilingual families and the language use patterns in those families.

Stop place assimilations and assimilations based on manner or voicing of adjacent segments have long been noted and reported in the literature pertaining to typically developing Telugu children (e.g. Lakshmi Bai and Nirmala 1978; Nirmala 1981) and those with phonological disorder whose native language is Telugu (e.g. Vasanta 1994). In these and a few other studies dealing with Indian languages, the participants were not strictly monolingual. They were all exposed to a number of loan words from English which have become part of their native language (assimilated to native phonological system). Over the years, the population of children being exposed to English right from their kindergarten years is steadily increasing. Currently, there is little if any discussion on the nature of 'phonological learning' in individuals with communication disorders who use two or more languages in their day-to-day communication in the Indian context.

Teasing out individual cues underlying phonological contrasts and determining their weights (contribution) in different listening environments with respect to the various languages in use by groups of individuals is indeed a stupendous task. Tests such as those described below might serve at least as screening tools to isolate subgroups of phonologically disordered individuals whose problem may have something to do with phoneme discrimination, one of the components of input processing (see Chiat 2000 for

more details). When applied to typically developing children, they might throw light on the distinctness or separateness of phonological contrasts across typologically different languages.

## DESCRIPTION OF THE TESTS

The information provided here about the proposed tests is limited to the type and number of contrasts used to test phoneme discrimination, administration and scoring of the test. Neither the contrasts nor the stimulus words selected to represent each contrast are exhaustive of the languages under consideration. One of the characteristic features of Telugu is that a majority of Telugu words end in open syllables. In other words, they lack coda consonants. Also, Telugu has numerous long consonants (geminates) and clusters in word medial position. In native Telugu words, clusters are not common in word initial position and virtually absent in word final position. Such facts dictated the choice of contrasts, which as far as possible remained the same across the two languages. Listed below are the contrasts included in both the languages:

1. Vowel height
2. Vowel place
3. Vowel duration (Telugu); monophthong/diphthong (English)
4. Consonant place
5. Consonant manner
6. Consonant Voicing

Most of the test items in both the tests are two syllables in length. Selection was NOT based on frequency, familiarity or grammatical-class considerations, as they would have made it impossible to get sufficient number of contrasts that vary on only one feature. Since every item is meaningful, testing for discrimination of each pair of items is justified. For the vowel contrasts, each test has made use of simple syllable structures, whereas the consonantal contrasts were signaled using both simple and complex syllable structures, the latter containing geminates or clusters. The glosses for the Telugu words are given in the

appendix. In terms of administration, tape-recorded items are to be presented in an ABX paradigm. To illustrate with Telugu examples:

| Contrast | Item A | Item B | X | Answer |
|---|---|---|---|---|
| /e –a / | *e:ru* 'stream | *a:ru* 'six' | *a:ru* | 2 |
| | pe:lu 'lice' | pa:lu 'milk | peelu | 1 |
| /m – n/ | *miiru* 'you' | *niiru* 'water' | *niiru* | 2 |
| | *gumpu* 'crowd' | *gundzu* 'to pull' | *gundzu* | 2 |

Computerized versions of the test can be developed such that the program permits the listener to look at the pair of A & B items on the monitor each time while deciding whether an X-item is either A or B and then press the corresponding answer button. For the sake of convenience in scoring, the number of items included under each contrast was distributed in such a way that the Telugu test will yield a maximum score of 50 and the English test will yield a maximum score of 50 making up the grand total, 100. The most common practice of assigning 1.0 to a correct response and zero marks to wrong response is recommended for the time being. Other ways of scoring can be used after obtaining some empirical data using these tests. By changing the item representing X from among the words within the test, more randomized versions of each test can be generated. Tables 1 & 2 display the Telugu items, whereas, Tables 3 &4, items from the English test.

***Table –1: Vowel Contrasts in the Telugu test***

| Item # | Contrast | A | B | X | Ans. | A | B | X | Ans. |
|---|---|---|---|---|---|---|---|---|---|
| 1. | /i/ - /a/ | iTu | aTu | iTu | 1 | wiipu | waapu | wiipu | 1 |
| 2. | /e/ - /a/ | eeru | aaru | aaru | 2 | peelu | paalu | peelu | 1 |
| 3. | /u/ - /a/ | uupu | aapu | aapu | 2 | muula | maala | maala | 2 |
| 4. | /i/ -/u/ | iika | uuka | iika | 1 | niiru | nuuru | nuuru | 2 |
| 5. | /e/ -/o/ | eeDu | ooDu | ooDu | 2 | teelu | toolu | teelu | 1 |
| 6. | /e/ - /u/ | eedi | uudi | uudi | 2 | meeta | muuta | muuta | 2 |
| 7. | /a/ - /aa/ | adi | aadi | adi | 1 | nadi | naadi | naadi | 2 |
| 8. | /i/ - /ii/ | ika | iika | iika | 2 | widhi | wiidhi | widhi | 1 |
| 9. | /u/- /uu/ | uri | uuri | uuri | 2 | puri | puuri | puri | 1 |
| 10. | /a/ -/ai/ | addu | aidu | addu | 1 | waram | wairam | wairam | 2 |

***Table –2: Consonant Contrasts in Telugu Test***

| Item # | Contrast | A | B | X | Ans | A | B | X | Ans |
|---|---|---|---|---|---|---|---|---|---|
| 1. | /b/-/d/ | baDi | daDi | baDi | 1 | Rubbu | ruddu | ruddu | 2 |
| 2. | /b/ /g/ | biida | giida | biida | 1 | Mabbu | maggu | mabbu | 1 |
| 3. | /p/ -/t/ | paaDu | taaDu | taaDu | 2 | Wampum | wantu | wantu | 2 |
| 4. | /t/- /k/ | taaru | kaaru | kaaru | 2 | Natta | nakka | nakka | 2 |
| 5. | /s/-/sh/ | siila | sheela | sheela | 2 | Ceestaa | ceeshTa | ceestaa | 1 |
| 6. | /p/ -/T/ | piika | Tiika | piika | 1 | Gampa | gaNTa | gampa | 1 |
| 7. | /m/-/n/ | miiru | niiru | niiru | 2 | Gumpu | gundzu | gundzu | 2 |
| 8. | /w/-/b/ | waalu | baalu | waalu | 1 | Garwam | garbham | garwam | 1 |
| 9. | /r/- /l/ | reepu | leepu | leepu | 2 | Potram | poTlaam | potram | 1 |
| 10. | /c/-/sh/ | caalu | shaalu | caalu | 1 | Pacci | pakshi | pacci | 1 |
| 11. | /c/ -/k/ | caalu | kaalu | kaalu | 2 | Pacca | pakka | pacca | 1 |
| 12. | /dz/-/g/ | dzaaDi | gaaDi | gaaDi | 2 | Waadzu | waagu | waagu | 2 |
| 13. | /m/-/b/ | muura | buura | buura | 2 | Bomma | bobba | bobba | 2 |
| 14. | /p/ -/b/ | paaTa | baaTa | paaTa | 1 | Dappu | Dabbu | Dappu | 1 |
| 15. | /k/-/g/ | kooru | gooru | kooru | 1 | Mokka | mogga | mogga | 2 |

***Table-3: Vowel Contrasts in English Test***

| Item # | Contrast | A | B | X | Ans. | A | B | X | Ans. |
|---|---|---|---|---|---|---|---|---|---|
| 1. | /i/ - /æ/ | beat | bat | beat | 1 | Spin | span | spin | 1 |
| 2. | /e/ - /ʌ/ | bed | bud | bud | 2 | bend | bund | bend | 1 |
| 3. | /u/ - /a/ | fool | fall | fall | 2 | Stool | stall | stall | 2 |
| 4. | /i/ -/u/ | peel | pool | peel | 1 | Fleet | flute | flute | 2 |
| 5. | /e/ -/o/ | bet | boat | boat | 2 | Held | hold | held | 1 |
| 6. | /e/ - /u/ | made | mood | made | 1 | Flake | fluke | fluke | 2 |
| 7. | /i/ - /ɔ/ | beat | bought | bought | 2 | Spit | spa | spit | 1 |
| 8. | /a/ - /ai/ | far | fair | far | 1 | Small | smile | smile | 2 |
| 9. | /a/- .au/ | law | loud | loud | 2 | Shut | shout | shut | 1 |
| 10. | /o/-/ou/ | boat | bout | bout | 1 | Bones | bounce | bounce | 2 |

***Table –4: Consonant Contrasts in English Test***

| Item # | Contrast | A | B | X | Ans. | A | B | X | Ans. |
|---|---|---|---|---|---|---|---|---|---|
| 1. | /b/ - /d/ | big | dig | dig | 2 | bumble | bundle | bumble | 1 |
| 2. | /b/ -/g/ | boat | goat | boat | 1 | jumble | jungle | jungle | 2 |
| 3. | /p/ -/t/ | pear | tare | pear | 1 | wasp | vast | vast | 2 |

| Item # | Contrast | A | B | X | Ans. | A | B | X | Ans. |
|---|---|---|---|---|---|---|---|---|---|
| 4. | /t/- /k/ | top | cop | top | 1 | dust | dusk | dust | 1 |
| 5. | /s/-/sh/ | sell | shell | shell | 2 | single | shingle | single | 1 |
| 6. | /f/-/s/ | fun | sun | sun | 2 | scarf | scars | scars | 2 |
| 7. | /m/-/n/ | map | nap | map | 1 | ample | ankle | ankle | 2 |
| 8. | /w/-/b/ | wheat | beat | beat | 2 | curve | curb | curve | 1 |
| 9. | /r/- /l/ | rate | late | late | 2 | prayer | player | player | 2 |
| 10. | /c/-/s/ | chin | sin | chin | 1 | march | mars | march | 1 |
| 11. | /c/ -/k/ | chick | kick | kick | 2 | pinch | pink | pinch | 1 |
| 12. | /dz/-/g/ | dzig | gig | dzig | 2 | binge | bing | bing | 2 |
| 13. | /m/-/b/ | melt | belt | belt | 2 | grammar | grabber | grabber | 2 |
| 14. | /p/ -/b/ | pill | Bill | pill | 1 | staple | stable | staple | 1 |
| 15. | /k/-/g/ | coat | goat | goat | 2 | sink | Sing | sing | 2 |

## IMPLICATIONS

Empirical data based on these tests with typically developing Telugu-English bilingual children when compared with that of those with communication disorders can throw light on the nature of phonological disorders in these populations. These tests can also be administered to ESL learners in order to monitor acquisitional patterns in learning English. They may also yield interesting information about intelligibility problems in adult neurologically impaired population.

The results can also be used to calculate functional load of phonological contrastivity in a given speaker. Connolly (1980) for instance, proposed a metric termed contrastive power (C) with which the functional load of a system with N terms in parallel distribution can be calculated. Thus if a vowel system of a speaker has five phonemes (for instance, /i /, / u /, / e /, /o /, / a /), then the contrastive power of that system is given by the formula:

$$C = N (N-1)/2$$
$$5 (4) /2 = 10$$

Suppose one of the terms is removed (say vowel /o/), the contrastive power of the reduced system becomes 6.0. In other words, the reduced system has only 60% of the contrastive power relative to the original system. This reduction will affect a person's capacity to

signal functional distinctions. Connolly went on to demonstrate how this concept can be extended to the measurement of functional load at both phonological and syntactic levels in English language. In a subsequent article, Connolly (1989) discussed the usefulness of this notion in the context of language disorders. Such information would of use in planning and monitoring progress during therapy with phonologically disordered individuals.

Finally, information based on these tests when administered to normal hearing people against different degrees of background noise might offer some information about the susceptibility and / or robustness of different contrasts in different languages which are simultaneously in use.

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## APPENDIX
## Glosses for the Telugu words

### Vowel Contrasts

| First set | Second set |
|---|---|
| This way – That way | back – swelling |
| Stream – six | lice - milk |
| To swing – to stop | corner - garland |
| Feather – chaff | water - hundred |
| Seven – to lose (in a game) | scorpion - skin |
| Where – to blow | fodder - cover |
| That – measurement | river - mine |
| Now – feather | fate - street |
| Noose – having soaked | hay stack – fried bread |
| To press – five | boon - enmity |

## Consonantal Contrasts

| First set | Second set |
|---|---|
| school – fense | to grind – to rub |
| poor – buffaloe | cloud – mug |
| to sing – rope | bend – turn |
| tar – car | snail – fox |
| earring stopper- name | (I) will do – act |
| rubber nipple – vaccination mark | basket – bell |
| you (plural) – water | crowd – to pull |
| angle – ball | pride – pregnancy |
| tomorrow – to lift | grinding stone – paper packet |
| enough – shawl | unripe – bird |
| enough – leg | green – mattress |
| jar – cart | vase – stream |
| measure – whistle | toy – blister |
| song – road | drum – money |
| to scrape – nail | plant – bud |

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# ASSESSING ENGLISH LANGUAGE PROFICIENCY USING CLOZE TESTS

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## ABSTRACT

In the recent past, the focus in second language research has shifted from the teacher to the learner, in particular to the factors affecting learners' proficiency in using the language. An attempt has been made in this paper to show how cloze tests can be used to test the strengths and weaknesses in the narratives of a group of college students coming from English vs. mother-tongue medium backgrounds.

## INTRODUCTION

The Cloze tests have been used extensively in testing reading ability in the field of education. Performance on these tests has been shown to correlate well with reading comprehension. In the classic procedure, every fifth word is deleted, no matter what that word is, and syntactic processing ability of the participant is tested by noting how well he /she is able to fill in the deleted portions. The pseudo-random cloze procedure also has been in use for at least 35 to 40 years as a measure of readability and reading comprehension, although little research has been carried out to examine the effect of deleting specific words from the text.

This paper reports on an experiment, where three cloze tests were administered on a sample of 60 students. The main aim of this paper is to assess the language proficiency among the under graduate professional students. The sample is divided into two groups, one of English medium background students and the other of mother tongue medium background students to identify their potential in processing (comprehending) English texts.

### Origin and Purpose of a Cloze Test

The cloze form, originally suggested by Taylor (1953),

contains systematically deleted words. The cloze procedure was developed for testing readability of a text in order to measure 'the effectiveness of communication' for native speakers, which was soon applied to the second language (L2) situation. The name cloze, pronounced like the verb 'close' is derived from the gestalt concept of closure - completing a pattern. This term in Gestalt psychology applies to the human tendency to complete a familiar but not quite finished pattern. (Taylor 1953:415)

The cloze procedure is typically used to-

a) Determine what students already know about the given topic and

b) To assess the suitability of a new text for students by testing prior knowledge and language competence as they attempt to fill in the deletions.

**Cloze can also be used to -**

1. Check the readability of foreign language passages, just as it was first used to test the readability of native language passages.
2. Test global reading comprehension skills.
3. Check for an awareness of grammatical relationships.
4. Diagnose particular learner problems. (Cohen 1980:95-96)

## THREE VARIANTS OF CLOZE ACTIVITIES

### Option 1 - Random or Rational

An option in designing a cloze is to delete every $n^{th}$ word consistently, be it fifth or seventh; in this way all types of words have an equal chance of being deleted. Random cloze approach is believed to provide a truly integrative reading. A rational cloze refers to one in which a specific type of word is deleted. Example - verbs or adjectives.

### Option 2 - Free or Multiple Choice

In a free cloze test, the reader must come up with the/a

correct word and no choices are offered. A multiple-choice activity is a novel notion. Cohen (1994) states that 'multiple choice cloze tests appear to be easier than free cloze tests.'

### Option 3 – cloze Elide (A Unique Variation)

Items are added rather than deleted and the task of the reader is to spot these irrelevant additions and delete them.

### How to Analyze a Cloze?

Haskell (1975) suggests three levels of scoring a cloze test.

1. **Independent Level**: In this level, the mean score of the students should be at least 53% correct indicating that they find the test easy to comprehend.
2. **Instruction Level**: In this level, the mean scores of the students are 44-53%. Scores between 44 and 53 percent may indicate that the passage is just at the appropriate level of difficulty for the class.
3. **Frustration Level**: If the mean score is below 44% correct, they are considered to be in frustration level. It indicates that the students find the passage too difficult to comprehend.

In the present study these three criteria were used with the two main groups of participants.

| | **Students with English medium background** | **Students with mother tongue medium background** |
|---|---|---|
| Independent Level (over 53%) | | |
| Instruction Level (44-53%) | | |
| Frustration Level (below 44%) | | |

## Participants for the Present Study

The sample in this study consists of sixty B Tech first-year students (all girls).These students belong to a corporate Engineering college affiliated to Jawaharlal Nehru Technological University. The sample is an amalgamation of different students coming from different regions all over the state. The sample is divided into two groups; the first group is called EMBS (English medium background students) and the second is called MTMBS (Mother tongue medium background students).In the first group the number of students were 47 and in the second group there were 13 students, all these students study English only in their 1 year B Tech. The sample selected for the study belongs to the academic year 2005-2006.

## Administration of the Tests

To assess the language proficiency, the students were given three cloze tests at different points of time. These tests tested the grammatical and lexical abilities.

A pseudo-random cloze was selected for this study which is quite contrary to the fixed ratio method. In pseudo- random cloze, all types of words have an equal chance of being deleted. Cloze- 1 tested the students on both the content words and the grammatical words. Cloze-II and III tested the students on grammatical and content words respectively.

## CLOZE TEST -I

The passage for the test was selected from B Tech 1- year text book **Learning English, ELT, A Communicative Approach**. The passage had 70 blanks to fill in, with approximately seven or eight words between blanks. The method of pseudo-random cloze (Oller1979, cited in Cohen 1980:95) was followed which is quite different from the fixed ratio method. The students were given 45 minutes to complete the cloze passage. It was felt that the performance of all the students was very low. The students may have found it difficult to fill in 70 blanks while keeping the

thematic whole of the entire passage in mind. Hence, a second cloze was tried on the students.

## CLOZE TEST -II

The second cloze test was administered on the same set of students. The passage was comparatively short, with 50 blanks to fill in. The passage was taken from Wren and Martin High School Grammar book. This passage concentrated on testing the grammatical capability of the students. The time given to the students was 30 minutes.

The performance in cloze II was much better than cloze I. In this test 16 students of EMB (English medium background) could be categorized under the Independent level and 14, the Instruction level. One student out of these 14 belongs to the MTMB (Mother tongue medium background).

As the percentage of Frustration level students was more than half of the total strength of the class (i.e. 60 students) administering the third cloze test was considered as the best option. At this juncture, the whole concept of testing the grammatical power of the students was replaced with an idea of looking at the lexical strengths of the students.

## CLOZE TEST -III

The same passage, after a period of time, was administered on the students with appropriate lexical words to be filled in the blanks. The time given to finish the task was 30 minutes.

Cloze III proved to be a revelation, as 20 students performed well and they could be categorized under the Independent Level. One student out of the 20 belonged to the MTMB group. 17 students came under the category of Instruction level out of which 3 students belonged to MTMB.

On the whole, the total strength of MTMBS is 13, except 3

students all the remaining 9 still were under the category of Frustration level. The EMBS were 47 in number, out of which 14 were categorized under the Frustration level.

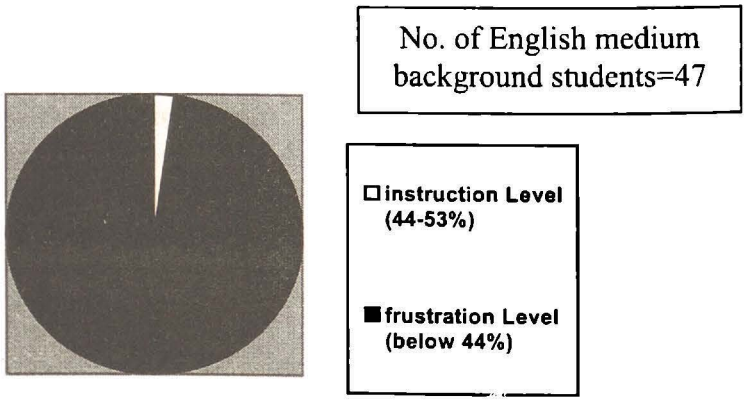
## RESULTS AND ANALYSIS

### CLOZE-I

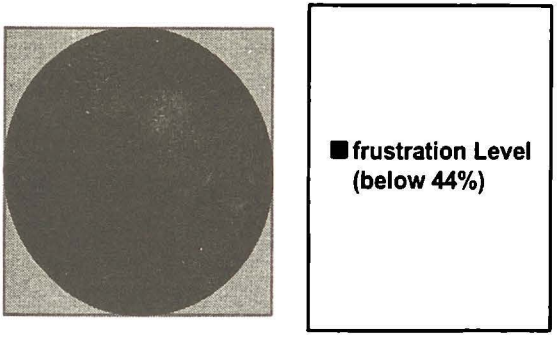
The scores of cloze- I are shown in the following table and figures:

| | **No. of English medium background students =47** | **No. of mother-tongue medium background students =13** |
|---|---|---|
| Independent Level (over 53%) | NIL | NIL |
| Instruction Level (44-53%) | 1 | NIL |
| Frustration Level (below 44%) | 46 | 13 |

It can be seen from the above table that both the groups performed very poorly on the test as illustrated in the two pie-charts (see the small white portion for EMBS and virtually absent white portion for the MTMBS ):



No. of mother-tongue medium background students =13




## RESULTS

The performance of all the students was very low. Fifty nine out of sixty students came under the category of Frustration Level and just one student from the English medium background could be categorized under the Instruction Level.

The reasons for such a low performance could be as follows:-

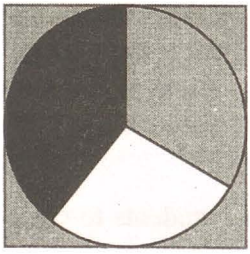
1. The passage was too lengthy for the students to comprehend and cohere.
2. The sentences in the passage were too long, this might have made the task challenging for the students in guessing the right word.
3. The students could not cope with the standard of the passage. The task was challenging as it was taken from their English text book (B Tech 1 year).
4. The passage had blanks to be filled up with both function words and content words.

**CLOZE – II**
**Haskell Criteria:**

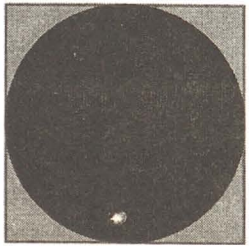
| | **No of English medium background students = 47** | **No of mother-tongue medium background students =13** |
|---|---|---|
| Independent Level (over 53%) | 16 | NIL |
| Instruction Level (44-53%) | 13 | 1 |
| Frustration Level (below 44%) | 19 | 12 |

**Whole Sample:-37%**
**Mean Score:-47%** (EMBS)
**Mean Score:-26%** (MTMBS)

No. of English medium background students= 47




No. of Mother tongue medium background students= 47



## RESULTS

There is a remarkable improvement in the scores of English medium background students. Out of 47 students, 16 EMBS came under the category of Independent level and 13 of them in the Instruction level and 19 of them in the Frustration level.

The performance of Mother tongue medium background students is constant, as there was no difference in the score except for one student who secured between 44-53%.

## PROBLEMS FACED BY THE MTMBS

1. Majority of the students were unable to fill all the blanks, most of the deleted items were function words.
2. The students found a great difficulty in filling the blanks with appropriate prepositions.(See Appendix page No ii)
3. Almost all the students found the passage difficult to comprehend. For instance, they were unable to fill blanks, where they had to just repeat the word that was already stated in the earlier context (e.g. rule-ruled in the sentence below)

   Example:- 1) A time may come when they _____ rule us altogether, just as we _____ them. (Answer for blank 1- will, Answer for blank 2- rule).

## CLOZE TEST -III

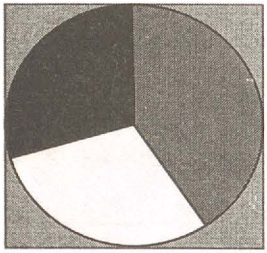
As cloze-II tested the grammatical ability of the students, it proved to be difficult for MTMBS. Cloze- III was administered with a view to find out whether the students can perform better in the area of content words.

For cloze III the same passage was administered after a period of one month on the same group to test the students' ability in content words.

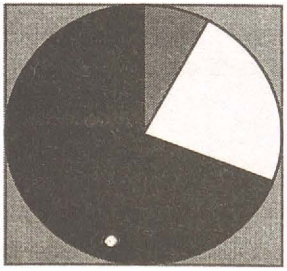
| | **No of English medium background students = 47** | **No of mother tongue medium background students = 13** |
|---|---|---|
| Independent Level (over 53%) | 19 | 1 |
| Instruction Level (44-53%) | 14 | 3 |
| Frustration Level (below 44%) | 14 | 9 |

**Mean Score = EMBS – 63%**
**MTMBS – 38%**
**Whole Sample = 51%**

No. of English medium background students=47




No. of mother-tongue medium background students =13



## RESULTS

The students performed comparatively well as they found connecting sentences with content words much more easy than filling it with grammatical words. For instance, words like 'children', 'machines', 'energy, 'time', 'strive', 'whole', 'less',' point', 'hospitality', were used accurately by the students. There were a few words which were substituted for actual words; these words were accepted as they were closer to the actual words in meaning.

| | Actual Words in the Cloze III | Words Substituted for Actual Words |
|---|---|---|
| 1. | We use them like small children. | We use them like small kids. |
| 2. | He (man) has grown so dependent on them (machines) | He has become so dependent on them. |
| 3. | They (machines) are in a fair way have become his masters. | They are in a fair manner have become his masters. |
| 4. | They (machines) do not get their food when they expect them. | They do not get their fuel when they expect them. |
| 5. | Man has a better chance today. | Man has a better opportunity today. |

### Overall Findings

The MTMBS performed better in a cloze test on content words than cloze- I and Cloze - II where Grammatical words were concerned. The performance level of MTMBS in cloze-II is 26% whereas in cloze III they scored 38% with a drastic improvement by 12 %. This proves that the mother tongue medium students have more potential and capability in content or lexical words than in grammatical words.

## CONCLUSIONS

English medium background students have more exposure to

English than mother tongue medium background students which seems to make them more proficient in the use of grammar and content words. The results reported in this study suggest that mother tongue medium students are not far behind the EMBS. If provided with the same exposure in the later stages of their learning they can improve their grammatical skills gradually and compete with English medium students.

Thus, in a multilingual country like India where English for some learners is a second language and for some the third, using a pseudo-random cloze for testing language proficiency proves to be more effective. In a pseudo-random cloze every genre of language is given equal importance, and hence the researcher can be more confident about the results obtained on this test. While the present paper discussed the use of cloze tests for assessing English language proficiency in general, it should be noted that teachers can use these tests to monitor learning of individual grammatical categories by improvising cloze procedures through selective deletion of specific categories (such as prepositions, tense markers etc.).

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## APPENDIX

**List of Errors** – The list of errors is made taking into account the whole class of 60 students. As the cloze passage tested the grammatical capability of the students, errors can be classified broadly into the following:

**Errors in the use of Prepositions,**

**Errors in the use of Verbs**
**Errors in the use of Auxiliary verbs**
**Errors in the use of Nouns**
**Errors in the use of Adjectives.**

For examples within each category, the expected answer is given in brackets and the response obtained from the participant is underlined.

## ERRORS IN CLOZE - I

### Prepositions:

1. Eight hours cycles <u>for</u> rotation. (By)
2. Eight hours cycles <u>in</u> rotation.
3. Midnight <u>of</u> 8 a.m. during the next month. (During)
4. Midnight <u>at</u> 8 a.m. during the next month.
5. One cause was introduction <u>to</u> the night bulb. (Of)
6. People should learn <u>about</u> sleep (to)
7. Extra sleep for weekends can help (during)
9. Drivers falling asleep while in the wheel. (At)
10. Drivers falling asleep while on the wheel.
12. Women have to stay awake on track of the market. (Keeping)

### Auxiliary Verbs:

1. Even after local T. V. transmissions <u>was</u> closed. (have)
2. Some accidents <u>to</u> be traced to drivers falling asleep. (can)
3. They wake up by daybreak and, thus, <u>had</u> get nine hours of sleep. (could)
4. How <u>ever</u> this change in sleep habits come about? (did)
5. How <u>was</u> this change in sleep habits come about?
6. But where there <u>have</u> been severe deprivation. (has)

### Conjunctions:

1. According to <u>biologists the specialists</u> in sleep disorders. (and)
2. According to <u>biologists sleep therapists'</u> specialists in sleep disorders.

**Verbs:**

1. They cannot do calculations. (make)
2. They cannot find calculations
3. To stay awake to track of market developments. (keeping)
4. Sensible thing to do would be to bring back to our old time.(go)
5. Sleep habits came about. (came)
6. Sleep habits are about. (came)
7. Sleep habits is caused about. (came)
8. Electric bulb became into common use. (came)
9. One way is to give a siesta in the afternoon. (take)
10. One way is to have give a siesta in the afternoon
11. How could this change in our sleep habits what about? (come)

**Articles**

1. This is most sensible thing to do. (the)
2. As the life of the civilized community became more complex. (a)
3. As the life of our civilized community became more complex. (a)
4. As the life of highly civilized community became more complex.(a)

**Prepositions**

1. Powers fit beyond god. (for)
2. Grown so dependent of them. (on)
3. Waiting for machines. (upon)
4. Petrol as drink. (to)
5. Destruction all with them. (round)
6. We have to wait for them. (upon)
7. What we are to do for them. (with)
8. Aids for civilization. (to)
9. Justice equally for man and man. (between)
10. Less about fear. (to)
11. After removing the causes. (to)
12. Quarrels in nations. (between)

**Verbs**

1. Machines were made to make man's servants. (be)
2. Fair way to become his master. (be)
3. Just as we made animals. (rule)
4. What we make with all our time. (do)
5. Energy to do more and more better machines. (make)
6. If he will spend his time. (give)
7. To come out more and more about the universe. (finding)
8. Machines had given us. (have)
9. Machines had won for him. 9have)
10. Being civilized by making and linking beautiful things. (meant)

**Auxiliary Verbs**

1. They to be kept at right temperature. (must)
2. When they might rule us altogether. (will)
3. We also try to become mere civilized. (should)

**Nouns**

1. Difficult either to work or play without the energy. (machines)
2. For the civilization themselves. (machines)

**Adjectives**

1. We use them like the children. (small)
2. For the given part we use our time and energy. (most)
3. More and many machines. (better)

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# AGE EFFECTS IN THE DETECTION OF LEXICAL AMBIGUITY

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and
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## ABSTRACT

The study was designed to compare the performance of a group of younger and older healthy English speaking adults on a task involving matching of multiple meanings of words. 31 young adults (mean age 21.76 years) and 34 older adults (mean age 76.87 years) participated in the investigation. The stimuli comprised of homonymous words, polysemous words, as well as unrelated words. The printed target items were presented on white index cards along with four other words. The participants were instructed to identify all the words that were related in meaning to the target word. The data was analyzed and subjected to statistical treatment. No statistically significant difference was noted for homonymous words and polysemous words between the two groups. It was concluded that aging did not impact significantly on the ability to discern lexical ambiguity when words are presented in isolation.

## INTRODUCTION

One of the most commonly studied forms of ambiguity in language is lexical ambiguity. It has been suggested that at least 50% of a reasonably adequate English lexicon is constituted of either homonymous or polysemous entries (Zipf, 1968).

Traditionally, linguists have defined polysemy as a major shift in the meaning of a word (Lyons, 1977), the result being a number of different but interrelated meanings. Homonymy on the other hand, refers to the phenomenon of different meanings that are not related in any way. They are thought to have developed from distinct lexemes, which for various reasons have acquired the same form (Schreuder and d'Arcais, 1992). Polysemous words are often

used interchangeably with homonyms and homographs and are often used as semantic "ambiguities" to test theories and models of lexical access.

Many psycholinguistic studies of homonymy processing have shown that subjects have access to two important sources of information to resolve ambiguity. One source is from the subjects' prior experience with homonyms. The second is the fact that a particular meaning of a homonym may be more frequent or dominant than another. Evidence from a number of studies indicates that dominant meanings are activated more quickly and likely to be integrated into higher-level representations than subordinate meanings (Simpson & Burgess, 1985; Frazier and Rayner, 1990).

Simpson (1984) reviewed studies on the effect of lexical ambiguity on word recognition and concluded that 3 models of ambiguity processing are relevant.

i) The context dependent model which states that meanings of ambiguous words are activated by the context of sentences in which they occur, so that only contextually appropriate meanings of the ambiguous word is activated.

ii) The single access model that proposes that meanings of ambiguous words are derived serially according to their frequency (Forster and Bednall, 1976). The most frequent meaning is retrieved first, and the search stops if the meaning is appropriate to the context. Otherwise, the next most frequent meaning is selected. In the absence of context, retrieval favors the dominant (most frequent) meaning (Simpson, 1981).

iii) The multiple access model states that when an ambiguous word is presented all the word meanings are retrieved. It is only following this that context has some influence on selection of the appropriate meaning. Although context affects the selection process, lexical activation occurs automatically for all meanings (Holley -Wilcox & Blank

1980; Onifer and Swinney, 1981; Seidenberg et al, 1982). Onifer and Swinney (1981)'s findings support a multiple access model where all meanings are accessed regardless of the frequency of association between the ambiguous word and its meaning.

In an attempt to test the predictions of the multiple access model (iii above), the present study aimed at investigating the performance of younger and older adults on a task of discerning multiple meanings of words presented in the absence of context. Drawing on the published literature in the field, it was hypothesized that the two groups of participants would not differ significantly on their performance in this task.

## METHOD

### Participants:

The participants included two groups of English speaking volunteers. One group comprised 31 healthy young individuals, 12 male and 19 female, in the age range of 18 – 28 years (Mean age = 21.8 years). The second group consisted of 34 older individuals, 14 male and 20 female in the age range of 65 – 98 years (Mean age= 76.9 years). Of these, 16 were in the 65-74 age group (Group-I), 10 in the 75-84 age group (Group-II) and 8 were + 85 years and above (Group-III). All the subjects fulfilled the following criteria:

a) Had no significant history of neurological disorders, head injury, psychiatric illness or alcohol abuse.

b) Had normal / corrected vision and could see well enough to read a typed sentence.

c) Had no known hearing impairments. The older subjects were administered a speech discrimination test in which they had to discriminate speech well enough to obtain 80% accuracy on a Phonetically Balanced (PB) word list (ISHA, 1990).

d) Used English as their primary language of communication as ascertained by a language-use questionnaire specifically designed and administered for the purposes of this study.

e) Had at least 12 years of education in the case of young subjects, and a minimum of 8 years of education in the case of the elderly subjects.

f) Were active, alert and lived independently or with their families.

g) Did not report any memory problems.

**The information about their age, gender and educational background is summarized in Table 1 below:**

| | Age (years) | | | Education | | | Gender | |
|---|---|---|---|---|---|---|---|---|
| | **Mean years** | **Range** | **S.D.** | **Mean years** | **Range** | **S.D.** | **M** | **F** |
| Young | 21.76 | 18-28 | 3.29 | 15.16 | 12-18 | 1.77 | 12 | 19 |
| Old | 76.87 | 65.98 | 8.44 | 12.07 | 8 - 18 | 2.64 | 14 | 20 |

***Table 1: Age, Education and Gender of the participants in the 2 groups***

**Stimuli:**

The stimuli employed were 20 target words and four alternate meanings for each target word. The target words included 10 polysemous words and 10 homonymous words. All the polysemous and homonymous words were selected from Durkin and Manning (1989). Care was taken to ensure that the final word list included three homonymous words and three polysemous words that had three correct related meanings. The target and alternate words used in this study (H = homonymous; P = polysemous; boldfaced = highest meaning frequency) are listed below:

| **TARGET** | | **ALTERNATE MEANINGS** | | | |
|---|---|---|---|---|---|
| PALM (H) | ; WELL | TREE | **HAND** | DOOR |
| BANK (H) | : **MONEY** | ROPE | RIVER | DEPEND |
| BALL (H) | : WHEAT | DANCE | PAINT | **TOY** |
| DATE (P) | : **TIME** | FRUIT | PIECE | CALENDAR |
| FILE (H) | : CABINET | BLOCK | GROUND | TOOL |
| PUNCH (H) | : GUARD | DRINK | **HIT** | FALL |
| BAT (H) | : **ANIMAL** | LETTER | BOOK | CLUB |

| | | | | |
|---|---|---|---|---|
| SHIP (H) : | SEND | CHAIN | BOAT | GAME |
| LIGHT ( P) : | POSE | IGNITE | LAMP | STOOL |
| SHEET (P) : | **BED** | BOX | PAPER | UTENSIL |
| MARCH (H) : | CLOUD | **MONTH** | WALK | PROTEST |
| PLUG (P) : | ELECTRIC | PIPE | **STOPPER** | LOAF |
| NOTE (P) : | TRAILER | **MESSAGE** | HEED | MUSIC |
| CHOP (P) : | CAP | FROCK | **CUT** | MEAT |
| MOUTH (P) : | FACE | CAVE | RIVER | PLAY |
| TRIP (P) : | FALL | SLEEP | **JOURNEY** | STORM |
| SINK (P) : | SUBMERGE | STAR | FUEL | **RECEPTACLE** |
| COUNT (H) : | **ADDITION** | NOBILITY | MIX | MATTER |
| SEASON (H): | MEASURE | **TIME** | FLAVOUR | STREET |
| PART (P) : | SEPARATE | ROLE | **SECTION** | COVER |

**Procedure:**

The stimuli were presented on white index cards. Each single target was printed in black at the top of the index card. Four other words were printed underneath each target word, spaced at regular intervals with no indication of frequency or any other psycholinguistic attributes). Instructions were provided on an index card as follows:

"You will see a single target word followed by four other words. Indicate those that are related to the target word in meaning. There may be more than one correct choice".

**Example (Practice Item):**

BOW

BEND ARROW FIND WHEEL

**Scoring:** The number of correct multiple meanings for each target word was computed and scored as indicated below:

| | **Scores** |
|---|---|
| All meanings identified | 1.0 |
| Two out of three meanings matched | 0.66 |
| One out of two meanings matched | 0.5 |
| One out of three meanings matched | 0.33 |

The responses were recorded on the data sheets and tabulated for statistical analysis.

## RESULTS AND DISCUSSION

### Homonymous Words:

Means and standard deviations were calculated to determine the performance of the experimental groups on the task of matching homonymous words. Younger and older subjects appeared to perform comparably, with the younger group being slightly ahead. While the younger group achieved a mean of 8.49 (S.D. =0.88), the older group obtained a mean of 8.42 (S.D. =0.86). Variability of scores was small for both the groups indicating that the groups were homogeneous. To determine if the differences in performance of younger and older groups on the matching of homonymous words was statistically significant, one-way Analysis of Variance was carried out. The difference in the means of the groups was found to be not significant ($F(3, 61) = 2.45$; $p > 0.05$).

Further analysis to compare individual groups was carried out using Duncan's post hoc test. The means for three groups fell into one subset, namely, 8.91 for older group- II, 8.49 for the younger group, and 8.4 for older group- I. The older group- III with a mean of 7.84 fitted into another subset; however, it was comparable to the means of the older group- I as well as the younger group. The older groups- II and -III differed significantly at the .05 level. It was observed that the mean scores for the different age groups were confined to a narrow range.

### Polysemous Words:

Discerning the multiple meanings of polysemous words appeared to be a task that presented slightly more difficulty to the younger group than to the older one. While the younger group had a mean of 8.47 (S.D. =0.84), the older group achieved a mean of 8.65 (S.D. =0.7). Both the groups are homogenous as borne out by the fact that variability is minimal. A one-way Analysis of Variance to compare the means of the different age groups on matching of polysemous words was done. A non-significant difference was obtained ($F(3, 61) = 2.03$; $p > 0.05$).

Duncan's post hoc test was applied to study whether

individual pairs of groups differed significantly. As with the homonymous words, a similar pattern was observed. The older group- II with a mean score of 8.98, the older group-I with 8.68 and the younger group with 8.47 all fell into one subset. The older group-III with a mean score of 8.18 appeared in another subset along with the scores of older group-I and the younger group. Again, the older groups-II and -III differed significantly at the $p< .05$ level on this task.

The results thus reveal that the younger and older groups did not differ significantly in terms of their ability to process different meanings of ambiguous words. However, the older group- II, which performed best of all, differed from the older group- III at the $p<0.05$ level. Thus beyond the age of 85 there appeared to be some deterioration in the ability to perceive lexical ambiguity in the absence of context.

## Error Analysis of Words with Three Meanings:

To examine if the ability of younger and older subjects differed for discerning more than two different meanings of ambiguous words, an error analysis was performed. Attempt was also made to study differences between the experimental groups in processing of noun-verb meanings.

## Homonymous Words:

Analysis of the errors of younger and older participants on the homonymous words with three correct meanings showed that both groups made maximum number of errors here (Table 2).

| | Homonymous Words | | |
|---|---|---|---|
| | **BANK** | **COUNT** | **MARCH** |
| #Younger | 16 | 19 | 11 |
| # Older | 16 | 23 | 15 |

***Table 2: Number of subjects in the younger and older groups who made errors on homonymous words with three meanings***

It can be seen that the participants in the two experimental groups had difficulty in discerning all three meanings of the homonyms. For instance, when BANK was presented subjects in both groups could identify two of the meanings namely, MONEY and RIVER, but not the third meaning- DEPEND. It was, however, the older group which had greater difficulty on two of the homonyms, namely, COUNT and MARCH. This difficulty appears to be related to the extremely low meaning frequencies associated with the alternate words that they could not detect.

Further, it was found that in the processing of homonyms with verb-noun meanings, both groups made errors on two homonyms (BANK and MARCH) i.e. they missed out on DEPEND and PROTEST - the verb meaning of these homonyms, both of which occurred extremely rarely, less than 5% of the time.. In addition, the older group had difficulty with one other homonym, namely, SHIP, where they failed to match SEND as one of the meanings.

**Polysemous Words:**

Error analysis for polysemous words revealed that both the young and older groups encountered difficulty in identifying the three different meanings of the three words (Table 3). However, the number of older participants who missed out on all three meanings of NOTE and MOUTH appeared to be higher.

| | **Polysemous Words** | | |
|---|---|---|---|
| | **DATE** | **NOTE** | **MOUTH** |
| Younger | 18 | 20 | 10 |
| Older | 16 | 23 | 15 |

*Table 3: Number of participants in the younger and older groups who made errors on polysemous words with three meanings*

In the processing those polysemous words with verb-noun meanings, both the younger and older groups failed to identify MESSAGE as one of the meanings of NOTE even though it was

reported to have a meaning frequency of 58.0 (see Durkin and Manning 1989). However, the younger group also had one more frequent error namely, SINK, where they failed to match SUBMERGE as a possible meaning (even though it had a meaning frequency of 42.0 as opposed to the alternate word, receptacle with 53.0 meaning frequency).

The results thus showed that accuracy rate for homonymous and polysemous words with three different meanings were poor in both the younger and older groups and that it may have something to do with the frequency with which those words are used in the language. However, a substantially higher number of older subjects than younger ones seemed to encounter difficulty in appreciating the alternative meanings of these words when the contextual support is missing.

Simpson and Burgess (1985) suggested that a frequency coded multiple access model can account for the activation patterns in the processing of ambiguous words in isolation. Evidence of the interaction of context and dominant meaning emerged from the investigation of Duffy, Morris and Rayner (1988). Their results showed that in the absence of biasing context, all meanings of balanced homographs were accessed. Reeves et al (1998) suggest that due to its strength in lexical representation the most frequent meaning of a word may always be accessed; less frequent meanings may become active only in neutral or subordinate-biased contexts.

In the present study, both younger and older groups of subjects could access subordinate meanings of ambiguous words to the same extent. While most of the ambiguous words had two targets, there were six words that involved three targets. No differential performance between the groups was observed for these targets.

Previous research has also addressed the issue of whether experimental findings are influenced by the grammatical class of

two meanings of an ambiguous word. For instance, a study by Seidenberg et al (1982) showed that when a primary context was presented, both meanings of words with noun and verb interpretations were activated; however, in the case of noun and noun meanings, only the contextually intended meaning was accessed. The authors claimed that it was the syntactic class of a word's meaning which determined whether word-access was exhaustive or selective and not the context per se. It was proposed that meanings of words with the same grammatical function compete for access in a way that words belonging to different grammatical classes do not.

In the current study no contextual elements were involved. Both the younger and the older groups were able to activate noun-verb interpretations for six of the ten items without much difficulty. They failed to access verb meanings for BANK, MARCH and NOTE. In addition, the older group did not access verb interpretation of SHIP while the young group similarly missed out on that of SINK. It may be noted that the meaning frequencies reported above for some of the items relate to data from Australian English speakers. There is lack of information on the frequency of occurrence of the target words in Indian English used by both monolinguals and bilinguals. Once such information is available, future studies can be undertaken to probe further variables affecting lexical ambiguity involving sentential contexts.

## CONCLUSION

The results of this investigation suggest that there is no statistically significant difference in the accuracy with which younger and older adults comprehend ambiguous words presented in isolation. However, it appears that beyond the age of 85 years there is some decline in the accuracy with which lexical ambiguity is processed. There is a need to explore lexical ambiguity effects in sential contexts for all age groups. Such research would throw light on the strategies that need to be adapted to minimize ambiguity in communicating with older individuals.

**Note**: This study was carried out by the first author as part of her doctoral research under the guidance of the second author. All the participants are residents of Mumbai.

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# DEPARTMENTAL NEWS

- **Prof. D. Vasanta took charge as the Head of the Department on April 2, 2007.**
- Prof. A. Usha Rani assumed the responsibilities of the Chairperson, Board of Studies in Linguistics in May 2007.
- Prof. K. Nagamma Reddy and Prof. V. Swarajya Lakshmi retired from University service in June and July 2007 respectively.

## Joint Advisory Committee Meeting

The Joint Advisory Committee meeting of CAS and ASIHSS was held on 31.3.2007.

## Academic Activities of the Faculty

### Prof. Aditi Mukherjee

Editor, Osmania Papers in Linguistics Vol. 32 (2006).

### Paper Presentation:

'Mother tongues, language learning and dialogism'. Symposium on Mother tongues and Language Learning, organized jointly by OU Centre for International Programmes (OUCIP), Goethe Zentrum, Hyderabad, Alliance France, Hyderabad, February, 2007.

Lectured on Language and National Integration at Geophysical Survey of India.

Co-investigator of the Research Project of CAS in Linguistics entitled "Collecting and Analyzing spoken and written narratives in Telugu and Hindi using picture based stimuli"

Discussant in the National Workshop on Linguistics & Communication Disorders organized by CAS in Linguistics, O.U.

## Prof. D. Vasanta

### Seminars / Conferences / Workshops

January 6-7: Coordinator for a National Workshop on Linguistics and Communication Disorders organized by the Centre of Advanced Study in Linguistics, O.U.

June 15, 2007: A talk on Research Proposal Writing at a Workshop on Research Methodology in Humanities and Social Sciences by Osmania University Arts College at the ICSSR hall.

September 1, 2007: Lecture on `Linguistic factors and research trends in learning disabilities' at the Seminar on Learning Disability organized by the Dept of Psychology, O.U.

October 16-17, 2007: Resource person in the first meeting on "Language and Cognition" held at Manesar, Haryana as part of the Cognitive Science initiative by the Department of Science & Technology, during the XI Plan.

November 28, 2007: Resource person in a Workshop organized by All India Institute of Speech and Hearing, Mysore to finalize the syllabus for a P.G.Diploma course in Clinical Linguistics.

November 29, 2007: Core group meeting of "Corpora for Spoken language deficiency", part of the Linguistic Data Consortium set up by the CIIL, Mysore.

Co-investigator of the Research Project of CAS in Linguistics entitled "Collecting and Analyzing spoken and written narratives in Telugu and Hindi using picture based stimuli"

## Prof. A. Usha Rani

Joint Coordinator for the National Workshop on Linguistics and Communication Disorders organized by the Centre of Advanced Study in Linguistics, O.U.

Discussant for 2 papers presented in the National Workshop on Linguistics and Communication Disorders organized by CAS in Linguistics, O.U.

i) Sentence processing in Telugu Aphasics by Swathi Ravindra

ii) Linguistic aspects of a case with transcortical sensory aphasia in Telugu by Dr. Sudheer Bhan.

Co-investigator of the Research Project of CAS in Linguistics entitled "Collecting and Analyzing spoken and written narratives in Telugu and Hindi using picture based stimuli".

## B. Vijayanarayana

Co-edited (with P.C. Narasimha Reddy, G. Umamaheshwara Rao, and M.V. Ramanaiah) *Bhaasha: International Journal of Telugu Linguistics*, Vol. **2**:1, 2007.

Topicalized and left-dislocated constructions in Telugu. Paper presented at the 1st National Conference of Telugu Linguists' Forum held during November 6-7, 2007, organized by CALTS, CDE, IL-IL-MT Project, University of Hyderabad, Hyderabad.

## K. Ramesh Kumar

Gave a lecture to the participants in the Workshop on Preparation of Dialect Dictionary in Telugu on the topic "**An Outline History & Methodology in Dialect Studies",** 10th August, 2007 at P.S. Telugu University, Hyderabad

Participated as a resource person in the Workshop on "Preparation of Curriculum for Tribal Culture Specific Text Books for Class I-V in Tribal Dialects", 2007. Organised by Sarva Siksha Abhiyan, at the State Project Director's Office, SSA, Hyderabad, AP.

Participated as a resource person in the Workshop on "Preparation of Dictionaries in Tribal Languages", October, 2007. Organised by Sarva Siksha Abhiyan, at the State Project Director's Office, SSA, Hyderabad, AP.

Gave two lectures (*An overview of Linguistics and Language Teaching and The Place of Telugu in Dravidian*

*Languages*) to the Telugu teachers of Solapur, Maharashtra in the **"Orientation Course in Telugu"** Jointly organized by SRLC, CIIL, Mysore and International Telugu Centre, P.S. Telugu University, Hyderabad during 12-11-2007 to 18-11-2007.

Participated as a resource person in the Workshop on "Editing of Class IV Multilingual Education Textbooks", 27-12-2007 to 31-12-2007. Organised by Sarva Siksh Abhiyan, at the State Project Director's Office, SSA, Hyderabad, A.P.

## VISITING FELLOWS

1. Prof. H.S. Ananthanarayana, Retired Professor of Linguistics, O.U., spent two weeks at the Centre under Visiting Fellows programme and delivered a series of six lectures in Indian Grammatical Tradition during July-August, 2007.
2. Report on the lectures delivered by Dr. E. Mani Rao, Visiting fellow at the Centre of Advanced Study in Linguistics, O.U during Dec. 2006 and Jan. 2007.

### Summary of Dr. Mani Rao's Lectures:

Dr. E. Mani Rao, a speech-language pathologist currently working at the Royal Hospital for sick children, Glasgow, U.K as a specialist in the area of Specific Language Impairment and other literacy difficulties among school children spent two weeks at the Dept. of Linguistics under the visiting fellow programme of the UGC. During her two weeks stay she delivered six lectures and interacted with the staff and students from the department as well as researchers from other institutions in the twin cities.

In the first lecture on 'Introduction to Phonological Disorders', Dr. Mani Rao offered definition of the various terms relating to developing as well as disordered phonological system in relation to English. She also gave examples of typical phonological processes observed in English speaking children, discussed possible causes for them and the impact of these simplifying processes on intelligibility.

In her second lecture on 'Analysis of phonologically

disordered speech', Mani Rao provided a historical account starting from the picture articulation tests to the decade of 90's dominated by phonological process analysis, psycholinguistic approaches etc. which made use of theories such as non-linear phonology and optimality theory; she spoke of the subgroups of phonologically disordered children identified through these recent assessment batteries.

In her third lecture on 'Perception vs. production vis-à-vis phonological disorders', Dr. Mani Rao discussed using illustrations concepts such as categorical perception, perception of homophones, discrimination of minimal pairs, acoustic cues such as VOT, formants and formant transitions etc. and shared her experience of how these concepts can help in the diagnosis and treatment of children's phonological disorders.

In her fourth and fifth lectures on 'Specific Language Impairment' she dwelt upon linguistic aspects of early vs. late language. Specifically, she argued that while language of pre and early school age children has been studied from the point of view of lexicon, morpho-syntax and semantics, the later language development in the adolescents requires attention to the use of idioms, analogies, narratives, verbal inferences and other metalinguistic skills. She discussed the difficulties in arriving at the diagnosis of SLI, some of the risk factors, causes (including genetic factors) and assessment issues. She provided a list of standardized tests currently in use in measuring deficiencies in a range of language skills (both expressive and receptive) among English speaking children diagnosed with SLI.

In the final lecture titled, 'Language and Cognition: Insights from SLI', Dr. Mani Rao discussed with the help of a normal probability curve what is meant by the term, diagnosis by exclusion in relation to SLI and then went on to talk about the sub-systems of language and how they relate to perception, learning, memory and organizational skills in typically developing children. Drawing on a modular perspective on cognition, she spoke of SLI as a condition in which specific aspect of language, in particular the grammar

(and processing of grammatical relations) is affected in the absence of intellectual impairment.

These lectures delivered at the New Seminar hall of the University college of Arts and Social Sciences, O.U. were attended by more than 50 participants from the following institutions: Research students from the CIEFL (recently re-named EFL University); Staff and B.Sc and M.Sc students of Speech and Hearing from Helen Keller Insitute of speech and hearing, Southern Regional Centre of AYJ NIHH, Sweekar-Upkaar Rehabilitation Centre; Telugu University; the staff members, M.A. Students and research fellows of the Dept. of Linguistics at O.U. Dr. After her lectures, Dr. Mani Rao stayed on to participate in the National Workshop on Linguistics and Communication Disorders organized by the CASL during Jan. 6-7, 2007.

## NATIONAL WORKSHOP

A report on the National Workshop 'Linguistics and Communication Disorders' organized by the Centre of Advanced Study in Linguistics, Osmania University, Hyderabad during Jan. 5-6, 2007 is given below:

The characterization, assessment and remediation of communication disorders require active collaboration among different disciplines such as linguistics, psychology and neurology, and yet opportunities for such collaboration are limited. Speech-language clinicians need specially designed assessment and remediation tools that are specific to particular clinical contexts and specific languages. To facilitate focused deliberations on this topic in relation to some of the Indian languages, a group of practicing speech language pathologists and neurophysicians were asked to prepare descriptive case studies in communication disorders affecting both children and adults. Each case study was referred to a selected group of trained linguists interested in the fields of communication disorders with a request to raise points for discussion at this workshop as to how each study can be enriched with the help of linguistic theories and methodologies. The workshop was coordinated by Dr. D. Vasanta and Dr. A. Usha

Rani, faculty members of the Centre of Advanced Study in Linguistics at Osmania University.

This workshop was held at the new seminar hall of the University College of Arts and Social Sciences, Osmania University during January 5-6, 2007. The Principal of the college, P.L. Visweswara Rao, professor at the Dept. of Communication and Journalism, O.U. served as the chief guest, and Uma Rangan, Professor of Psychology, O.U. presided over the inaugural session. Prof. Aditi Mukherjee, Head and Coordinator of the Department of Linguistics, O.U. welcomed the participants and spoke about the department's contribution to applied areas of linguistics; Dr. D. Vasanta talked about the background, aims and scope and organizational aspects of the workshop. Dr. Usha Rani gave a vote of thanks. The scientific sessions that followed the inaugural session provided a common platform to discuss a wide variety of communication disorders (Stroke aphasia, dementia, Mental retardation, LK syndrome, hearing impairment, Specific Language Impairment etc) experienced by adults and children speaking Indian languages (Hindi, Marathi, kannada, Malayalam and Telugu). In addition to several local participants (including students and faculty members from sister institutions in the twin cities), there were others who came from Indore, Mumbai, Bangalore, Manipal, Trivandrum, and Mysore to attend this workshop. The following institutions were represented by the participants (both paper peresenters and discussants, one or two of them could not be present, but they did send in their comments which were read out):

- All India Institute of Speech and Hearing, Mysore.
- AYJ National Institute for the Hearing Handicapped, Mumbai (including their Southern Regional Centre in Secunderabad).
- Central Institute of English & Foreign Languages, Hyderabad
- College of Allied Health Sciences, Manipal Academy of Higher Education.
- Hyderabad Central University.
- MGM Medical College, Indore.

- National Institute of Mental Health and Neurosciences, Bangalore.
- Nizams Institute for Medical Sciences, Hyderabad.
- Sri Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum.
- Sri Ramachandra Medical College & Research Institute, Chennai.
- Sruthi Institute for Research and Training in Speech and Hearing, Secunderabad.

Four neurologists and eleven speech language clinicians discussed 12 different case studies of patients with communication disorders (with breakdown at phonological, syntactic and semantic levels) that they have studied in detail. A group of ten different linguists responded to the papers. These responses pertained to issues of assessment tools (e.g. problems with Hindi adaptation of Western Aphasia Battery); the question of bilingualism / multilingualism; the question of standard vs. dialect; the question of determination of syntactic complexity in the spontaneous speech samples of multi-lingual speakers; the question of cultural specificity of items in a semantic battery etc. One of the problems specific to the India context identified at this workshop was, the lack of information on language use patterns in multi-lingual speakers (about their preferred language in different domains). In the final session devoted for consolidation and planning for future, participants (especially the clinicians) made several suggestions listed below.

The Centre of Advanced Study in Linguistics, O.U. was asked to take initiative in developing the following:

1. A course in language analysis (with ref. to any Indian language) for neurologists to be offered in the distance mode.
2. A (web-based) course on structure of one or two Indian languages for in-service speech-language pathologists; or other continuing education programmes.

3. Sharing of soft-copies of data based on disordered communication between linguists and clinicians to facilitate analysis and designing of new assessment tools in relation to Indian languages.
4. Develop a web-based list-serve utility so that sub-groups of participants could share their views on language analysis and work on different themes.
5. Develop a course-book to help speech language pathologists do language analysis in a systematic manner in relation to any of the Indian languages.
6. Compile linguistic terminology in Hindi language.
7. Prepare glossaries of homographs, homophones, homonyms, synonyms etc in different Indian languages.
8. Collect video-taped spontaneous speech samples for analyzing pragmatic aspects of normal communication in the Indian context involving children and adults.
9. Initiate Institutional collaboration to replicate Malayalam semantic battery prepared by Sri Chitra Tirunal Institute for Medical Science and Technology, Trivandrum in other south Indian languages and to field test the items.
10. To request the Central Institute of Indian Languages to explore the possibility of collecting language-use history information as part of the large scale linguistic survey of India that they are planning to conduct soon.

## RESEARCH DEGREES AWARDED

**Awarded Ph.D. degree to Ms. N. Prasanna Lakshmi for `A Comparative Study of R.K. Narayan and Arundhati Roy: Linguistic and Literary Aspects. Supervisor: Prof. B. Lakshmi Bai.**

## ABSTRACT

Broadly speaking, Indian English (IE) is that variety of English used by a large number of educated Indians as a second

language. Kachru (1983) used the term 'Indian English' for the variety of English used generally in the South Asian countries. David Crystal (2003) observes that in India the numbers of English speakers outrank the combined number of speakers in USA and UK. This indicates the importance that English has acquired in the Indian polity. English has an important place in Indian society, due to its use in the legal system, government administration, secondary and higher education, the armed forces, the media, business and tourism. A considerable body of creative writing is also produced in English and is increasing steadily. Writers like Mulk Raj Anand, R.K.Narayan, and Raja Rao, and Manohar Malgaonkar, Kamala Markandaya, Anita Desai, Salman Rushdie, Arun Joshi, and Arundhati Roy, have become part of India's literary tradition and they may continue to hold their status in world literature too. The use of Indian English in different domains in interaction with other regional languages has resulted in its development and recognition as a distinct variety in its own right.

The present research is an attempt to study the styles of two of the prominent writers of Indian English, namely R.K.Narayan and Arundhati Roy by examining the different linguistic and literary aspects as reflected in their selected fictions- R.K.Narayan's "Swami and Friends" (SF) and "The Guide" (TG) and "The God of Small Things" (GST).

Stylistics, the study of style, is concerned with the analysis of distinctive expression in language and the description of its purpose and effect (Peter Verdonk 2002). In the traditional approach, stylistics was looked from literary point of view studying traditional poetics (rhetoric) which includes metaphor, metonymy, irony etc. In linguistics, stylistics is viewed from the point of view of language features of a text.

Essentially, the modern linguistic approach combines the literary and linguistic aspects of style features. Leech and Short (1981) have abstracted a number of style markers for studying styles. These style markers are broadly classified into the following four categories: 1. Lexical: (e.g. compound words, rare or specialized vocabulary etc.); 2. Grammatical: (e.g. verbless

sentences, question formation etc.); 3. Figures of speech: (e.g. parallelism, metaphor, simile etc.); 4. Cohesion and Context: (e.g. lexical cohesion, ellipsis, coordinating conjunctions, character representation) etc. However, besides these style features which hold for monolingual contexts, Indian writings in English also needs to be analyzed in the contexts of Bilingualism and Multilingualism wherein special linguistic features like transfer features from Regional languages participate in the repertoire of the stylistic devices available to an author.

Kachru (1970) for instance, has identified reduplication, pre-head modifiers, compounds, collocations, loan words, hybrid words, transferred idioms, metaphors, and proverbs as distinct style features of Indian English.

In the present research both types of style features are explored in the writings of the two writers with a view to understanding their intended stylistic effects.

As for methodology, for limited goals like author identification, problems of chronology and integrity of texts or extraction of genre specific linguistic features computational tools have been used in different studies, for instance Sameen (2003). But, since stylistic analysis whether of literary or non- literary texts should essentially consists of not only identifying linguistic patterns and their quantification but also understanding their stylistic relevance, the method adopted in this approach involves a combination of the two methods namely machine and human interaction. In any stylistic study, rather than simply using literary texts as a linguistic study, it is essential that the quantitative properties of texts should be related to literary interpretation. This type of approach to style when attempted through the computer may be quite useful in stylistic studies in order to grab the larger texts to recognize and count the phonological, grammatical and lexical features involved. The quantitative analysis of texts may bring us important style features which would otherwise have been unnoticed, and then lead us to further investigation.

Unlike previous studies done on stylistic analysis relating to Indian English fiction, my approach is more systematic and is

based on a framework designed to study the prominent style markers. Nambiar (1973) uses a very general method to study Indian English Women Novelists between 1947–1967. He does not apply any statistical procedures to prove his argument. Anil K. Dandhich (1996) works upon a theoretical method to study the introductory pages of four novels of R.K. Narayan. He also does not make use of any quantification methods to support his study. In our approach an in-depth study of the texts are made to understand the style features of the authors. These preliminary observations then are further investigated for confirmation, wherever possible, with a few computer tools capable of performing linguistic analysis. For instance, Web tools like ENGCG, Link parser and TACT were used for abstracting non-English words, i.e. words of Indian origin. Similarly, Wordsmith and CALTS tools were used to extract the most frequently used word lists and INTEX & NOOJ for hyphenated words, pre-head modifiers, verbless sentences etc. However, these tools only served as helping aids in the research. In the present study, I have tried to use some of the text analysis tools in a limited way for preliminary exploration. Web Tools, CALTS, INTEX and NOOJ helped us to identify ambiguous or unknown words, which are very large in Roy's writings compared to those in Narayan's. INTEX and NOOJ helped us in obtaining the selected fictions' characters, tokens, diagrams, and frequency of the wordlists, hyphenated words and statistical output of some of the lexico-grammatical style features. The study reveals that there are quite a good number of text analysis tools to pursue quantitative method of stylistic studies in Indian English fiction writing. The applications of tools are quite helpful in abstracting certain lexico-grammatical features. Nevertheless, the tools have their own limitations. They cannot cover all the different linguistic devices employed in the creative use of Indian English.

The detailed results of the study are discussed in Chapter V-Data and Analysis. The presentation of Data lists style features in R.K. Narayan and Arundhati Roy's texts using the framework of Leech and Short followed by Kachru's. Common style features in the two writers' texts as well as their specific stylistic devices are discussed in detail with examples.

An examination of selected fictions of the two writers of this study has shown that stylistic analysis can be a rich field of enquiry in Indian English. Studies of the present kind can be used as a source material for applied linguistics. They can be extended for a comparative study of stylistic traits of Indian writers and non-Indian writers. The study suggests the possibility of further research in comparative stylistic studies in Indian English fiction, on the one hand, and American, British, or Australian fiction, on the other. Our comparison of the two writers, one of the colonial period and the other belonging to the post-colonial period, suggests that a more extensive stylistic study of Indian writing in English is called for to understand the changing phases of English in the socio-cultural ethos of the Indian society. Scholars like Kachru (1983) and Nambiar (1973) have tried to study the style features of different writers in terms of their place in the bilingual cline. However, our study shows that writers like Roy use English as one among the many native mother tongues and innovate in it freely. The stylistic devices of such writers may differ from those of writers who use English as a second language.

The thesis is organised as follows: Chapter-I is an introduction to Indian English, its importance and the objective of the research. Chapter-II deals with review of literature on Indian English as well as stylistic studies in Indian English fiction. Chapter-III gives a brief introduction to the texts chosen for study. Chapter-IV discusses the methodology adopted in the study. Chapter-V discusses the results of the study and makes a comparison between the two authors' styles. Chapter – VI consists of a summary of the research and concludes with suggestions regarding further research needs in the area of Indian English fiction.

**Awarded Ph.D. degree to Mr. K. Ramesh Kumar for Ganjam Telugu: A Sociolinguistic Study by P.S. Telugu University. Supervisor: Prof. B. Ramakrishna Reddy**

The Ph.D. thesis contains 8 chapters, the first chapter deals with review of literature, and the need for analyzing language

contact situations. The views of scholars like Weinreich, Haugen, and others on western language contact situation are presented. The works of Emeneau, Southworth, Krishnamurti, Gumperz, Wilson, Sjoberg, Annamalai, Ramakrishna Reddy and their contribution to Indian language contact phenomenon are presented.

The second chapter presents the historical background of Telugu speakers in Ganjam district of Orissa State, India and the aim of the thesis. The study focused on the structural variation in Ganjam Telugu (GT) and compared it to that of Modern Standard Telugu (MST)on the one hand and on the other it tried to account the various factors that are responsible for speech variation.

The third chapter presents the Phonemic inventories of GT, MST and Modern Standard Oriya. The Phonological variations are due to the influence of Oriya, and some are due to regional and social variation.

The fourth and fifth chapters present the various aspects of Noun and Verb morphology respectively.

The sixth chapter deals with the existential verb *uṇḍu* 'to be' in GT and its morpho-syntactic study. The verb *uṇḍu* 'to be' has lexical meanings such as exist, live, stay, wait etc and in the non-lexical use it carries aspectual distinctions. The verb *uṇḍu* in GT is compared with that of the other displaced Telugu dialects spoken in Tamilnadu, namely Rajaplem, and Salem. GT dialect shows a four-way tense distinction on the verb *uṇḍu* 'to be' but in MST it is future vs. non-future and in RD and TD it is a three-way distinction. GT dialect retains some of the old Telugu features and it also developed certain structural similarities with Oriya because of its contact with Oriya. The past negative form of the verb *uṇḍu* 'to be' is one such case, similar kind of development in TD with Urdu strengthens this point. Kumaraswamy Raja based on this verb structure predicted that the migration of Telugus to Tamilnadu is about three centuries ago. Since parallel kinds of structures are noticed in GT, may

be more or less of the same period Ganjam Telugus migrated to this region. In other words it reveals us the settlement history of Telugus in Orissa.

Chapter seven deals with, interference of Oriya and convergent changes that are taking place in Ganjam Telugu. The chapter also presents the feature matrix proposed by Annamalai (2001) to study the linguistic processes that happen in the context of language contact phenomenon. Various types of interferences namely, phonological, lexical etc. were presented. The Kupwar study by Gumperz and Wilson (1971) showed structural convergence among the languages in contact. It is noticed similar kind of convergent changes in GT as well. The use of dative case suffix *ki/ku* for accusative *ni/nu*, locative case suffix for dative, absence of plural suffix on the head NP and modifier, absence of oblique form in the plurals, copula constructions, tag questions, relative clause construction types, use of past verbal adjective for habitual adjective, use of reflexive *kooni* for past participle, etc. are some examples for Oriya influence. There is high degree of translatability from Oriya to GT, so much so that simple morph-by-morph substitution is possible. Even though the contact languages belong to two genetically unrelated language families, they have similar grammatical categories and identical constituent structures.

Chapter-8 presents the quantitative study of linguistic variables in Ganjam Telugu. They are : (i) (r) - [ɭ], [*r*] the variable [ɭ] occurs as person agreement marker in III person human plural such as *tintaaɭu/tintaaru* 'they will eat' ; (ii) (l) - [*n*], [*l*] the variable [*n*] occurs in word initial position ( e.g. *needu/leedu* 'not present') and medial position (e.g. *anaaga/alaaga*.) The variable [*n*] occurs most frequently for [*l*] in the illiterate speech of Kalinga dialect; (iii) (*nt*) -[nt], [*nt*] the variable [*nt*] occurs in -*n* ending verb roots

in future and habitual tense and in progressive aspect (*unɳaaḍu/untaaḍu* 'he will be present'); (iv) ((C)V̄C)-[(C)V̄C], [(C)VC] Nasalization occurs in word initial long syllables in Kalinga dialect and also in Ganjam dialect. (e.g. *paata/pããta* 'old one'). To study these variables the Chi-square test is applied to check whether the occurrences of two phonological variables (at a time) are completely independent of each other or not for a given sample which is sociolinguistically determined and defined. A 2/2 joint frequency distribution of occurences to each of the pairs of phonological variables [*ɭ*],[*r*]; [*n*],[*l*]; [*ɳɭ*], [*nt*]; [(C)V̄C], [(C)VC] and their association to the different sociolinguistic variables is calculated.

The study shows that there is a marked difference in the use of non standard forms i.e. the linguistic variables [*ɭ,n,nt,(C)V̄C*] in the female subjects. This is also reflected in the Chi-square values which are highly significant at .002%, .0014%, .0011%, .0000% level respectively. The social variable age did not show significant marked difference in the use of four linguistic variables. The subjects belonging to BC's show the use of the three linguistic variables [*ɭ,n,nt*] more than that of the other two caste groups namely SC and FC. The reason for using more standard forms by SCs than the BCs is their recent migration to some of the centres and in some centres there are no Telugu migrant SCs. The social variable education also plays a significant role in the selection of non-standard linguistic variables. This is also reflected in the Chi-square value which is highly significant at the .0000% level for all the four linguistic variables. The social variable profession/occupation does not play a very significant role with respect to the variation. Migration plays a very significant role in the use of all four linguistic variables. Subjects who have migrated 150 years ago show that the use of linguistic variables [*ɭ*],

[*n*], [*ɳɭ*] more than that of the two other migrant groups. This is also reflected in the Chi-square values which are significant at .0001%, .0000%, .0000% level with df=2. Whereas for the linguistic variable (C)V C the significant level is low at .0043% with df=2. The variable income is also playing significant role in the use of the linguistic varaibles. From this study it is clear that the social variables are playing a large impact on the linguistic variation among the speakers of the afore said area. This definitely confirms the Labov's study that the social variables do play an important role in linguistic variation in a speech community.

The responses for the language attitude questions are briefly touched upon in this thesis and they are not quantified. Since it was aimed at getting the pulse of the GT speakers, an indepth study is not attempted here. There is mixed response for the question number 20, that if schools are opened for teaching Telugu would they (GT speakers) support it. The older generation said they support it. But the younger generation said that studying Telugu is not of much use to them and it is an additional burden for them and if they fare better in Oriya their job prospects are better in Government recruitment. The older generation said that they want their girl child to study Telugu, so that when they seek marriage proposals for them with the mainland Telugu speakers is of use. For question 21 the majority responded of mixing of Oriya words in their Telugu. Similarly for question number 23 that all of them stated that learning Oriya language is advantageous in getting a job. But did not agree that it is prestigious. The majority of GT speakers also responded to the question number 25 that the Telugu dialect they speak is different form that of the mainland Telugu dialect and it is of a mixed variety. They also expressed that the mainland Telugu dialect is a pure one.

The appendix presents the sample texts of casual

speech of Ganjam Telugu informants, dialect vocabulary of GT, verb paradigms, and maps showing Ganjam district as part of Madras Presidency in 1911.

## 1. Dialectal features

GT dialect has retained a number of old/literary Telugu features both at the grammatical as well as lexical level. Since GT speakers were not in contact with the mainland Telugu speakers, probably they could have retained some of these relic features. It also shows certain similarities with that of the other displaced Telugu dialects spoken in Tamilnadu. The following are some of the interesting dialectal features that are noticed in GT.

(1) Presence of old Telugu /literary Telugu tense markers especially in the past tense – *ʈi/ti/nu (<enu)* e.g. *unnu* 'he/she was there'.

(2) It was found that the use of intermediary past tense form – *ee* > *ǣ* for example: *ceppeenu* 'I told' in the Parlakhimidi area by old rural uneducated informants.

(3) The use of past tense marker */naa/*on the verb *poo*, which might have resulted due to the dropping of */yi/* from the past tense i.e. *pooyinaaɖu*> *poonaaɖu* 'he went'.

(4) The present progressive form in postive is expressed by MV+ *t+naa*+GNP (MV+ *tuu+unaa*+GNP MST) in GT. e.g.. *aɖugutnaanu* (*aɖugutunaanu* MST) 'I am asking'.

(5) The use of imperative singular suffix *(m)mi* indicates intimate or non-politeness. -e.g. *rammii/raamii (<rammu)* 'you (sg.) come' *pommii/poomi (<pommu)* 'you (sg.) go'

(6) The existential verb *uŋɖu* 'to be' and its tense distinctions are interesting. The archaic past tense

(contra factual conditional tense) forms are retained on this verb - *unduḷu* 'they were there' *unduḍu* 'he was there'.

(7) Use of labialised velar consonant when followed by velar mid rounded long vowel [*oo*]. e.g. *kwooḷḷu* 'daughter-in-law' (<*kooḍalu* MST)

(8) The use of dative case suffix for accusative for the animate objects.

(9) The presence of waa*ḍnu* which might have resulted from the old Telugu form *waaḍanu* in the pronominalized predicates/contrafactual conditional tense is an archaic form. Its equivalent in MST is *waaṇṇi* which is an oblique form.

(10) The use of auxiliary verb *poo* – 'to go' on the negative verb stem to indicate future negative tense is a characteristic feature of GT.

(11) The use of *leekuṇṭini* 'I was not there' for the past negative, which is similar to Ganjam Oriya verb Morphology. Similar kind of patterns are found where the Dravidian languages are in contact with Indo-Aryan languages. For example Telugu in contact with Urdu in Hyderabad.

(12) The use of past adjectival form for contrafactual conditional/polite imperative.

(13) Lack of pronominalized adjectives in G.T. may be due to Oriya influence. Ex: *mee-m manci vaḷḷu* 'we are good persons'.

(14) Use of *allakkaḍa* 'Those at that place', for *adigoo akkaḍa; illikkaḍa* for *ikkaḍa* of MST.

(15) Use of vocatives: *oleey,* 'hey (informal addressing a male person younger than the speaker), for *oreey; oolappaa* for *oo akka* 'hey (informal addressing a

female person who is older/ then the speaker), *oolammoo,* for *oo yammoo,* (expression of surprise).

(16) The use of *naaniki/anduku* 'for' which have the meaning of 'purpose' or 'intention' in GT. but in MST it is expressed with *-aʈaaniki* 'for';

(17) The use of *yellpoy wastnaadi* for *wastunnadi* 'coming' which is similar to Ganjam Oriya form. The equivalent for this *caʅi asibi* 'coming'.

(18) Presence of nasalization on the long vowels of initial syllables is also a characteristic feature of GT.

(19) For the MST ayipoowu 'to get exaust, to complete' GT dialect has *sellipoowu* as its equivalent in use.

MST *bǣʈrii ayipooyindi* 'battery is exausted'

GT *bǣʈrii sellipooyindi* 'battery exausted'

The appendix presents the sample texts of casual speech of Ganjam Telugu informants, dialect vocabulary of GT, verb paradigms, and maps showing Ganjam district as part of Madras Presidency in 1911.

## 2. Suggestions for Future Research

Since the younger generation is compelled to study through Oriya medium, and there are better job prospects if they know Oriya, they are shifting to Oriya even in the home domain. Therefore, one can study in-depth on language maintenance and shift, and also on language attitudes of GT speakers.

Code-switching between Telugu and Oriya can be studied so that it may reveal the communicative strategies and the speaker identities.

Due to the influence of Telugu on Oriya, there are interesting structural changes taking place in Ganjam Oriya. It will be interesting to study the convergence phenomenon from this direction as well.

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# OSMANIA PAPERS IN LINGUISTICS

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## CONTENTS



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