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CERTAIN MODELS OF BILINGUAL MEASUREMENT AND THEIR USEFULNESS IN THE INDIAN CONTEXT

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Language tests developed before the Chomskyan revolution naturally neglected the thinking that language was a series of separate or discrete points which when added up, made the whole. Language was not viewed as a synergistic and social phenomenon (Erickson 1981). Verbal expression is frequently the medium through which social interaction, cognition and other behaviour is studied. Thus a sociological orientation to both first and second language learning has developed. The author in this paper has discussed different language tests and tried to analyse their validity in the Indian situation.

Inherent in the assessment of bilingual bicultural children is the diversity of definitions and theories on how first and second or subsequent languages are acquired. We are aware of the circular phenomena that how one views language is reflected in how it is measured, which is reflected in how it is viewed ad infinitum. Verbal expression is frequently the medium through which social interaction, cognition and other behaviour is studied and knowledge of the probable verbal performance of childern can often be vital in determining the most satisfactory design for an experimental study. Thus a sociological orientation to both first and second language learning has developed. Researchers have become increasingly concerned with the importance of the social setting, interactors, and topic of discourse (Cazden 1970, 1972 a, 1972 b,) especially in regard to minority dialects and bilingualism (Fishman 1972 : Labov 1972).

Language tests developed before the Chomskyan revolution naturally neglected the thinking that language was a series of separate or discrete points which, when added up, made the whole. Language was not viewed as a synergistic and social phenomenon (Erickson 1981). From this structuralistic viewpoint one would measure vocabulary with instruments or methods such as the Peabody picture vocabulary test (Dunn 1965)

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or syntax with the North Western Syntax Screening Test
(Lee 1969). Some tests measured several discrete points. For
example, the Michigan picture Language Inventory (Lerea
1958) evaluated vocabulary and syntax as well as the under-
standing and production of other structural relationships such
as singulars, plurals, prepositions, present and past tense of
verbs, possessive pronouns, comparatives, and superlatives.
Most of the discrete point tests also have limited or questionable
statistical support, especially in regard to their use with mino-
rity children.

In order to conduct meaningful "dynamic" studies of
social relations, personality growth and the like, we must first
have normative studies of children's development, performance
in articulation, vocabulary and communication of meaning in
the languages they are exposed to and subsequently acquire.
Way back in 1973 Mc Carthy and Davis established a ground-
work of such studies, delineated area of investigation. and
supplied norms of fundamental significance. Templin (1957)
improved on these efforts on two counts : 1) He collected
in one study on one sample of children, normative measures of
articulation of speech sounds, sound discrimination, sentence
structure. and vocabulary. Thus allowing the study of interrela-
tionships among these measures. 2) The design permits a
comparison of contemporary norms with data established on
similarly selected children in an earlier period. But maybe today
these studies, especially reliance on comparative studies do not
help much in the Indian bilingual context, because one cannot
expect the exact situations to exist, say even five years from
now. The children tested today in a particular linguistic setting,
will not remain the same after five years because the linguistic
environment may be totally different and therefore difficult to
draw comparative inferences.

Moreover certain tests in English were translated into
other languages. This procedure obviously violated the sta-
tistical support for the tests which may have been statistically
weak from the beginning. In addition, the cultural and lingui-
stic relevance of items often becomes inappropriate. In
other instances attempts to evaluate English proficiency of

bilingual children utilized the test designed for other purposes such as for evaluating reading or achievement.

Communication Assessment Models :

A communication assessment model that includes an analysis of function along with supportive information on form can satisfy the evaluation criteria of reflecting contemporary theories as well as the nature of the communicative process. Whether communication samples are obtained in a natural setting or through interview probes, they can be analysed within a contemporary theoretical framework. This evaluation would relate to the bilingual education model of the community and be an on-going process rather than simply a pre and post-test approach

In this paper I have attempted to analyse the validity in the Indian context, of a few tests used to assess first and second language proficiency and dominance. The tests may be divided into two categories 1) Discrete Point Language Tests of bilinguals and 2) Discrete Point and integrative oral language tests or Quasi-intergrative approaches.

Discrete point language tests :

These are currently in use in most academic second language and bilingual instructional settings. Language was seen as a series of distinct structural units (eg. phonemes, morphemes), and mastery of each of these separate units was judged to be equivalent to mastery of the language. Adequate instruments to test each of these individual structural units were designed. Therefore, discrete point tests were developed.

James Language Dominance Test (James, 1975).

The James Language Dominance Test was designed by Peter James to assess production and comprehension of the

Spanish and English lexicon used by Mexican-American Kinder-garten and first grade children in the Austin, Texas area. Test results are used to determine the child's present bilingual pro-ficiency and to permit subsequent classification into one of the following five categories : 1) Spanish dominant 2) Bilingual with Spanish as the home language 3) Bilingual with English as the home language 4) English as the dominant language but bilingual in comprehension, and 5) English dominant in both comprehension and production.

Procedure :

The author suggests that the simplicity and relative ease of administration are positive features of this test. It is recomm-ended that the test examiner be a bilingual paraprofessional and the test administration time is 10 minutes. The stimulus includes 40 picture cards in conjunction with the questions "What is this?" and "Where is the-?" in both Spanish and English. In the 40 test times, only 19 and 20 call for a two word (noun and verb) response in correct grammatical sequence, while other items require only a one word (noun) response. Each correct-response is awarded one point.   Total production and separate home item scores are then recorded and used to classify child-ren into one of the five above mentioned categories.

Validity :

According to Day et al (1981) inadequate sample size and lack of supportive data substantiating these lexical items as representative of the home language environment, severely undermine the applicability of using these responses to predict the child's language dominance in that setting. Furthermore inaccurate judgements about the urban child's language dominance in the home may be rendered as a result of the use of possible unfamiliar and therefore, inappropriate test item hose/manguera. Therefore, the actual value of this aspect test as true measure of any child's bilingual proficiency is seriously in question.

1. Scores obtained from the responses to particular lexical items in the test which reflect the home-language environment.

Adaptability :

In the absence of a uniform linguistic environment in India, the categorisation should be carefully done after taking into account the regional area, sociolinguistic situation of the regional area in which the test has to be administered For example, if it is testing a child with Bengali as his mother tongue in a Telugu speaking area where other languages like English, Hindi, and Lx coexist then the categorisation may be done as follows :-

L_1Bengali, L_2English, L_3Hindi, L_4Telugu, Lx-Any other language.

1. Bengali dominant.

2. Bilingual with L_2/L_3/L_4/Lx as home environment.

3. L_2/L_3/L_4/Lx dominant but bilingual in comprehension.

4. Classification according to the dominance in both comprehension and production in L_1/L_2/L_3/L_4/Lx.

If one has to keep so many categories in mind then the number of items must be representive and effective enough to help classification. Pictures should include items covering all spheres of the daily life of children, from household items, kinship terms, objects of nature, celestial objects, animals etc. Items for testing Lx should be optional and used according to the appropriate setting. There should be proportionate usage of stimuli for eliciting one word (noun) and two word (noun, verb) responses. Each correct response should be awarded 2 points and one minus mark for mistakes in word order for the two word responses and mixed-words response Phonological variations may be overlooked if it is only one per word and for more than one, one minus mark may be given.

Quasi-integrative Approach :

A combination of discrete point and integrative oral lan-
guage production instruments are currently being used to assess
bilingual children. These approaches to assessment are attempts
that recognize the importance of spontaneous language samp-
ling as the basis of assessment.

Examples of this approach are the Oral Language Evalu-
ation (OLE), Basic Inventory of Natural Language (BINL) and
Bilingual Syntax Measure (BSM). Each of these approaches
calls for a sample of natural language, cued by pictures, scored
in a discrete point fashion, with emphasis on syntax, vocabulary
and length of response.

Bilingual Syntax Measure :

The B.S M. was designed by Burt, Dulay and Hernandez-
Chavez, (1976) to determine the child's dominant language,
level of second language acquisition and degree of maintenance
or loss of the first language. The test instrument assesses the
language competency of an individual child by measuring syn-
tactic ability which is more stable across ideolects and dialects
than either pronunciation or vocabulary skill. The aim is to est-
ablish 5 levels of competency 1) Not Proficient in L_1 and L_2,
2) Receptive in L_1 and L_2 Skills only. 3) Survival L^1 or L^2,
4) Intermediate L_1 or L_2 5) Proficient in L_1 or L_2.

Procedure :

Each version (one to test L_1 and the other to test
L_2) consists of 20 questions (not translation equivalents) that
are intended to elicit particular grammatical structures about a
series of seven pictures.

Responses for both versions of the test are recorded in
their respective scoring booklets and later analysed for accepta-
bility and point value Responses are deemed acceptable if gram-
matically correct, despite their appropriateness to the question
that was delivered or their length. Therefore single word res-
ponses are also awarded points. For example when the child is

presented with a picture of small birds in a nest and asked "What are those?" the response would be scored thus :

(Grammatically Correct)	(Incorrect)
Babies	Baby
Baby Birds	Baby Bird
They are babies	They Babies
They're ducks	He is a duck.

Like wise when reference is made to a picture of a fat man and the question "Why is he so fat?" is delivered, the following responses would be scored.

(Grammatically Correct)	(Incorrect)
Because he drinks Beer	Because him drinks beer
Because he eats junk	Because he eat junk.

Scoring is accomplished by awarding 1 point to grammatically correct and no point to incorrect responses. The points are summed up and the child is placed in one of the five above mentioned categories in either L1 or L2. Concerning the field test edition, structural scoring that relied on the concept of obligatory ocasion[2] was employed. Each obligatory context was regarded as a test item that the child passed, by supplying the required morpheme or failed by supplying none, or an incorrect one. Each time a child set an obligatory occasion, for a structure, two scores were obtained : the expected score, which consisted of 2 points per occasion, and the actual score, which varied according to the child's performance on a structure. Two separate scores were summed up for all occasions of a specific structure with respect to each child and percentage of accuracy in producing that struture was obtained by dividing the total score by the total expected score. Following the precedent of Brown (1973) the criterion of acquisition was 90% correct usage across all obligatory occasions of that structure. Cut-offs for competency levels were established as follows

2. According to Rosanky (1975) The limited nature of the questions with respect to the context of the pictures and also the sheer limitation of the number of utterances may bias or even restrict opportunities for the subject to create a sufficient number of obligatory contexts for some of the morphemes.

95% - 100%	Proficient
85% - 94%	Intermediate
45% - 84%	Survival.

Validity:

One of the basic assumptions underlying the B.S.M. is that children learn L1 as well as L2 by the same process, creative construction. The rules for acceptable sentences were stringent and not flexible to accomodate language variations which are acceptable in their own social settings, therefore in terms of language proficiency there may be a bias in testing certain populations In response to criticisms regarding the low reliability figures of the B.S M., the authors state that these scores reflect changes that take place in child language Sometimes structures may be used for a while and then discarded before they are fully acquired. They feel that extremely high reliability coefficients would indicate insensivity to such changes.

Adaptability 1

Since the main emphasis is on syntax in this test, preparing corresponding tests to suit the Indian context is a complex matter. Depending on the linguistic environment separate lists of words for the languages in question have to be prepared. The original version does not take into account code switching or code mixing which is prevalent in the Indian context and scoring would be difficult with the Discrete Point System.

Scoring will be more effective if the evaluator considers the following criteria on a six point scale, ranging from (totally acceptable to totally unacceptable) before giving his or her judgement.

1. Totally acceptable

2. Insignificant deletions

3. Comprehension capacity and reactions time

4. Incomprehensible response

5. Interference in affixation

6. Degree of grammatical irregularities

7. Dialectal variation (syntactical)

8. Incomplete sentences

9. Totally unacceptable

This test may be administered to slightly older children $4 \pm$ and $5 +$ as syntactic development is more extensive in them and not limited to one or two word responses. And finally it is most important for the evaluator to know the language of the region in which the children are tested.

The bilingual syntax measure seems to be an effective measure keeping in mind the amount of research that preceded it as well as being grounded in current linguistic theory, but if one has to evaluate according to the use of standardised forms it creates a bias which may hamper measurement. One may use non standard syntax and still be considered intelligible speakers of the language in the question. Before a test is considered adaptable in the Indian Bilingual context, one has to be aware of their limitations and realise that they do not necessarily measure what they purport to measure. The significance of a test can only be determined after the results obtained prove the degree of efficiency of a particular model.

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METHODOLOGICAL CONTRIBUTIONS OF
TELUGU DIALECT DICTIONARIES[1]

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Dialect surveys, linguistic atlases etc. are known for a fairly long period but dialect dictionaries continue to be desiderate. In Andhra Pradesh, there has been considerable activity in this field right from 1949. Some persons who were interested in language aspect showed keen interest in the preparation of dialect dictionaries. The author has made a critical review of the dialect dictionaries prepared by them. The survey of Telugu dialects conducted by Andhra Pradesh Sahitya Akademi under the supervision of Bh Krishnamurti, opened new vistas in the study of Telugu dialects. Dialect dictionaries pertaining to different occupations were prepared. The methodology originally devised and modified later for the compilation of these dictionaries is vividly discussed.

1.0   Study of dialects has not yet gained the importance it deserved. The reasons are many and varied. One of the popular beliefs that politicians, who really matter have normally been entertaining is that through dialect studies the linguist is bringing out to surface the differences among people while they themselves are trying hard to obliterate them. This is known to every language planner   Laymen share with the man-in-the-street, the folkloristic misconception that dialects are degraded and corrupted forms of the standard language (Read 1962: 222). Chambers and Trudgill testify after a couple of decades that the notion is still persisting eventhough it does not make any kind of sense to suppose that any one dialect is in any way linguistically superior to any other (1980 : 3). And, the so-called 'standard' is only an abstraction. But it is a pity if, in spite of the grandiloquent propaganda of Max Muller, linguists of the calibre of Andre Martinet also maintain the same innocent view and classify the dialects into 'legitimate' and 'illegitimate' forms of language (Read 1962 : 323).   _

1.1   Dialect surveys, linguistc atlases etcetera are known for a fairly long period but dialect dictionaries continue to be desiderate. Studies in dialectology have not gained the necessary

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1 This paper formed the endowment lecture on chinnaysuri and Seeta rama charyulu delivered at the XI All India Conference of Dravidian Linguists held in Hyderabad in 1981.

momentum in all parts of this sub-continent. Malklel conside-
red dialect dictionaries an 'exceptional group comprising highly
specialised vocabularies of trades, crafts, arts and sciences
unrepresentative of the core of the common lexicon' (1962:23).
They contain hyponyms or specific words and, on the basis of
their distinctive features, they are typologically classified as
specialised dictionaries. G.A Grierson is considered the first
scholar in this field among those worked on any Indian
language. His *Bihar Peasant Life* (1985) was 'a catalogue of
the names used by the Bihar peasant for the things surrounding
him in his daily life' (Krishnamurti 1962 : 5). He covered all
rural occupations. His treatment was topical and method
narrative. Ambaprasad Suman's *krsik jivan sambandhi braj-
bhasapadavati* (1960) was prepared on similar lines (Ibid.).

    1.2. In Andhra Pradesh, there has been considerable acti-
vity in this field right from about 1949. Some scholars published
lists of dialect words in the Sunday issues of *Andhra Prabha*
(daily) that year and this practice is going on sporadically till
now. Of the many dialectal studies published so far, some
deserve mention even though all of them are not dialect dic-
tionaries. *Madrasu Telugu* by C. Radhakrishna Sarma (1969),
Mandalika padakosam compiled by M. Kondandarami Reddy
(1970), *Rayalasima mandalikam-Anantapuram* prantiyata by
R. Nagabhushana Rao. *Srikakulam Prajala bhasha* by V. C.
Balakrishna Sarma (1975) and *Raavisakhiyam* by A. Narasimha
Rao (1977) are noteworthy for their contribution to dialectology
through wordlists. A Commercialese Telugu Glossary (vanijya
Padakosam) of the Telugu Akademi is under print and a diaect
Dictionary *Mandalika pada kosam* of the same organization is
under preparation. Two of the above works are interesting for
two different reasons. *Srikakulam prajala bhasha* was compiled
by an Economics Lecturer out of passion for Telugu. It contains
a lengthy introduction which heavily borrowed from other
books and some theoretical discussions without acknowledging
the source books but the author was honest enough to state
that he completed his survey within a record time of ten days.
and he did not attempt at any scientific classification of the
vocabulary and that he made no effort in that direction
(page 59). Nevertheless it contained more than 2 000 words

in usage, many of which occur in the greatest literary piece of all times *Kanyasulkam* of G. V. Appa Rao. The compiler tried to give usages along with meanings. The other interesting work of the above list is *Ravisakhiyam* containing 1,781 words that occured in the writings of one of the most popular short story writers of the present time, R. Viswanatha Sastry, with references to page numbers of works wherein they occured in the senses reflective of the Vizag dialect. This may be considered an 'ideolectal' dictionary and is therefore a novelty. The only book of the above list that may attract attention as a dialect dictionary is *Mandalika pada kosam.*

      1.3. Kodandarami Reddi's work contains more than 11,000 entries of standardized dialect vocabulary. He called himself a *kuurpari* or Compiler and was assisted in his task by a *parisodhaka sangham* consisting of four scholars. Through the good offices of the Andhra Pradesh Sahitya Akademi he engaged 19 other scholars from within and outside Andhra Pradesh to collect data. He also incorporated the word lists published in 1949 by 24 other scholars. The compiler prepared a basic list of 2, 500 words in popular usage of his native district (Nellore) and mailed them to scholars whose names are not mentioned. The lists were received back with additions etc. and an 'editorial committee' met, examined and decided upon the format of the dictionary (p. xiii). The principles governing the collection and the methodology followed were not explained in the preface but the conclusions reached were mentioned explicitly (p.i). The editor discovered that all but the coastal districts north of the River Penna are devoid of notable influence of other languages'. The influence of Tamil in his own native district, that of Urdu in Telangana, and that of other languages in border districts are conveniently forgotten. The dictionary contains words, single and compound and phrases. In most cases, the districts where a word in question occurs is indicated. Antonyms are sometimes listed under the entries. Neither the sources of information are quoted nor the principles of standardization explained. The very basis for selection of words that should fill the dictionary is not known Its contribution to methodology is therefore impressionism rather than a scientific approach.

1.4. Leaving aside the two dialect dictionaries of the Telugu Akademi (one in print and the other in preparation) the series of dialect dictionaries published by the Andhra Pradesh Sahitya Akademi remained to be discussed in detail. The Survey of Telugu dialect vocabulary started in 1958 under the general supervision of Bh. Krishnamurti. The results are published under the title of *Mandalika vrttipada kosam* in several volumes. The first volume dealing with the agricultural vocabulary was first published in 1962 with Bh. Krishnamurti as editor and its second edition appeared in 1974. It was in its introduction that the methodology devised for the purpose was explained in some detail and that, on the basis of the dialect maps published, four distinct regional dialects were identified.

1.5. After setting the record straight, it may also be pointed out that the publication of these dialect dictionaries was envisaged as part of a more comprehensive and ambitious program of preparing a standard Telugu Dictionary on historical principles and was simultaneously taken up by the Sahitya Akademi with the preparation of concordances for outstanding Telugu classics (Krishnamuri 1962 5). When the work was taken up, there were not many theoretical directions and methodological approaches before the editors to be meticulously followed. It is thus important for scholars to examine every detail of what went into the compilation of these dictionaries in prospect and in retrospect. It is known that lists of navigational terms, including terms of shipbuilding have been in special demand since the 16th century in the western world (Malkiel 1962: 23) and that agriculture has been another long standing purveyor of specialized dictionaries but the methodology that was followed is not clearly known. Volume four of the series relating to House Construction and architecture edited by B. Radhakrishna, appeared in 1968 followed by volume two, edited by Bh Krishnamurti, relating to the handloom vocabulary, which was published in 1971. Volume five of the series concerning pottery edited by G N. Reddi saw the light of the day in 1976 and volume six, edited by the same scholar and relating to carpentry is under print. Volume three of the series concerning fisheries and boat-construction and edited by T Donappa and volume seven relating to goldsmithy edited

by G.N. Reddy are still in preparation. Together the published volumes contain 25,000 to 30,000 words. Twenty two years have already elapsed from the time the work was taken up and proposals for compilation of six more volumes are pending with the Sahitya Akademi It may be recalled here that the first ever dialect survey started in Germany by George Wenker in 1976 took half a century to come to fruition in 1926 and a further 3 years to be supplemented by W. Mitzka in 1939 (Chambers and Trudgill 1980 : 18, 19). Similarly, work on the Linguistic Atlas of the U. S. A and Canada which started in 1930 with Hans Kurath as coordinator remained incomplete even by 1976. The survey of English dialects, conceived by Eugen Dieth and Harold Orton in 1948 was completed in 1978 and the survey of Scottish Dialects which only got underway in 1952 has by 1980, completed only the first phase, i. e. collecting data through postal questionnaires (Ibid. 21-23). The author has no authentic information as to whether these foreign scholars worked whole-time or part-time but the part-time work done by Telugu scholars compares well with them in time factor.

1.6 After dwelling at length on prefatory information, the methodology originally devised and modified later (as and when necessary) for the compilation of these dictionaries will be discussed hereunder. The very first decision was that only a sample survey was possible in view of the time and money at the disposal. It was therefore imperative to choose centres which were some 40 to 50 kilometres away from each other. Agriculture being the commonest occupation, collection of data at any point of space, it was believed, would not pose a problem It was also thought that interviewing a single informant from every centre would, as a general rule, be sufficient. This was not possible in the case of volume four since house contruction is a composite activity wherein different skills are in operation and different persons are engaged for different purposes. If density of population in different regions of the state was also taken into consideration, the number of centres visited in different parts of the state would have been somewhat different. But only the geographical area divided into equidistant parts was considered sufficient precaution to arrive at a representative sample of data. It was also decided to

prepare a questionnaire and interview the informants with that aid. Postal questionnaire is a useless tool in this poor country of large scale and wide spread illiteracy. Ladislev Zgusta mentions that there are two main methodological approaches in the preparation of specialized dictionaries, the one being the study of word-field (Wortfoldferschung) founded by J. Trier which concentrates on the delimitation of the meaning of semantically related words and the other, onomasiological method of dealing with the analysis of a coherent part of the extralinguistic world which studies how its single segments are designated as, for instance, analyzing agricultural techniques and studying how tools, activities and processes are named (1971 : 103). The second method appeared to be handy in vocabulary survey. These were some of the general ideas with which the work was started.

1.7 There was a dearth of trained linguists in 1958. Persons who knew the various agricultural processes and have a flair for language and an ear like that of the legendary Edmont had to be recruited as fieldworkers and trained in general phonetics and field methods At the out set, word lists pertaining to agricultural activities were gathered which led to a 'topical analysis' of the occupation resulting in the preparation of a questionnaire' that was used in a 'preliminary survey' of a few centres widely separated by larger rivers and bigger mountain ranges (Krishnamurti 1962 : 100) The test survey helped in devising a vastly improved questionnaire that was divided into sections. The method of collecting the data was only through personal interview. The questionnaire was a tool employed by the field worker to elicit information without forgetting what all he should try to gather and it was later designated 'a scheme of elicitation' to reflect the reality of the situation (Radhakrishna 1968 : 85). The various tools, implements and utensils that the agriculturalists were using were recorded but some of the parts thereof could not be described by the fieldworker. This necessitated the appointment of a willing commercial artist to undertake tour and to draw diagrams labelling the parts. Tape recording of the interviews was not resorted to for want of funds and the field workers were instructed to jot down as far as possible the narrations of the informants such that verbal

forms, idioms, phrases and local expressions other than occu-
pational vocabulary could also be gathered. The scheme of
elicitation, when thoroughly followed, will help in collecting a
minimum of 1500 words per centre and this, it was hoped,
would compare favourably with Gillieron's with a core of 1500
items and the same with 1200 items used in the survey of
English Dialects (Chambers and Trudgill 1980 : 20, 22). The
collection of phrases, etc. accounted for the high degree of
interdependence between nouns and verbs that manifests the
'object of result' constructions and the dictionaries could provide
basic data to have an insight into the syntagmatic relationships
(Radhakrishna 1980 . 1 9). The questionnaires were subjected
to constant revision until the entire survey was over because
new ideas, new divisions of the occupational activity and
related words came to be known from time to time, depending
upon the enthusiasm shown by the informants and the innova-
tiveness of the field workers The field workers were instructed
to mail their reports at the the end of their four-day visit from
the centre of their activity so that the editor could also check up
what items were missing in the report and inform them by the
time they reach the third centre suggesting ways and means of
plugging the loopholes and improving the performance. The
cooperation of the postal authorities was of course there, well
within the limits of the promptness and efficiency at their
command.

    1 8   Recording of the bio-data was prescribed as the
very first duty of a field worker as soon as his selection of the
informant was done   The informant shall be a native of the
village for over two or three generations, preferably illiterate
(and there was no difficulty in selection on this score.) or with
little education (if that could not be prevented). of the age group
of 50-70 years, having few contacts with nearby urban areas
or courts and preoccupied mostly with his own profession. He
shall not be hard of hearing and shall be able to express clearly
without any difficulty. as also free from deformities that impair
memory and/or observation. His status and the status of
persons with whom he comes into contact in day-to-day life,
his role in the communities. his hobbies and other activities also
found place in his biodata   The field worker recorded the

responses of the informant in traditional Telugu orthography making use of diacritics for/æ/and/f/and he sometimes described in his report his inability and to write down a particular sound which, however he had been drilling to reproduce after his return. On an average 120 centres were covered in each case in about two years time. The field-workers who surveyed for the volume on house construction and architecture had to carry home the additional burden of rock samples which were used as building material in different parts of the state, neatly labelling the local names for the rock, its colour and its specific use (like, for instance, only used to build parapet walls or compound walls, etc) and those who worked for the handloom volume had to do the same with cloth samples and samples of yarn, designs, etc So was the case with those who carried fish samples in polythene bags for volume three, yet to be published Field survey was alternated with indexing of the material collected so as to reduce the burden on memory of the field worker in writing down the meanings of the occupational words in his ideolect. The most cumbersome part of indexing was identifying the partial and complete synonyms and indicating the homonyms by raised numbers.

1 9   Every word that occured in the field reports was first indexed along with the meaning supplied by the fieldworker and sometimes it was supplemented by a pencil sketch of a tool or part of it. In the second stage all words with variant shapes but synonymous in meaning were grouped together section by section   Homonymy was found to be widespread (Radhakrishna 1968 88) and certain words had to be provided with descriptive and/or technical meanings as also diagrammatic explanation   They were marked out for the purpose Many indexed words showed phonological variations necessitating some sort of standardization   In the third stage, sectional vocabulary was alphabetized, following a more rational method of arrangement than was obtaining in traditional dictionaries Words with phonetic / æ/and/f/were arranged following those with PurNanusvara (which is a cover symbol for homorganic nasals in orthographic practice) found place at proper places of the respective nasals Words that would have been traditionally written with the symbol for (r) were treated as with /ri/or/ru/

depending upon the pronunciation. In general the alphabeti-
cal order obtaining in DED was followed. In the first volume
relating to agriculture, sectional vocabulary given in alphabeti-
cal order without meanings but with reference to page numbers
in an appendix It was then felt that from the reader's point
of view, sectional vocabulary was more readily consulted with
In practice, printing was delayed because of the need to
rearrange the entire vocabulary in a single alphabetical order
and provide references to page numbers of the occurences of
individual words in the main body of the dictionary. This
practice was therefore abandoned in the later volumes in favour
of a single alphabetical order but in the fourth volume pert-
aining to house construction, sectional vocabulary was also
provided in an appendix. The diagrams which were given at
the end of the relevant sectional vocabulary in the first volume
were relegated to the end of the dictionary in later volumes.
Thus in the case of the first volume, the alphabetical arrange-
ment was combined with topical classification but the former
was preferred later. The third method of narrative presentation
was altogether given up. Then the problem of large scale
phonological variations, etc, were taken up, leading to
standardization and related issues.

    1.10. The large number of phonological variants were
classified into two types, i. e. significant variants or *rupantaralu*
(significant because of the historical or regional developments
they reflect) and sub-variants or *uccarana bhedalu* which appear
to be ideolectal The most frequent significant variant was
considered the basic form and all its other variants were listed
under the entry with cross-reference to the basic form When
two or more forms were equally frequent, the historically older
form and in its absence, that variant which was a lexical entry
was treated as the basic form. Geographical distribution of all
the variants were provided following their meanings and
synonyms. Homonyms belonging to different grammatical
categories, which come under different sectional or sub-sectio-
nal vocabulary and which do not come within any one restricted
semantic range were treated as separate entries and were
marked by raised serial numbers. If any such entry had more
than one meaning in different regions or related occupations,

the different meanings of that entry were numbered in paren-
thesis on the basis of their relative frequency. Meanings were
repeated under each synonymous entry and all the synonyms
were listed in alphabetical order under the most frequent form
of the synonymous entries. When an entry had different mean-
ings each of which had different sets of synonyms with-in a
given semantic range, its different meanings were numbered
in parenthesis. otherwise, the criteria followed in the case of
homonymous entries were applied in splitting it into different
entries marked by raised numbers. Most entries being nouns
in nominative singular, were not marked out as such Their
plural and adjectival forms were provided whenever it was felt
that they would help in internal reconstruction. The verbs that
occur with nouns in idiomatic expressions were indicated in
parenthesis. Part of an entry was given in parenthesis when
the forms excluding that in parenthesis was an abbreviated
form of the whole and was so in usage (Ibid. 88-99).

1.11. Whenever it was felt that the meaning of an entry
would not be clear without a diagramatic explanation, reference
to the particular diagram was supplied mentioning its serial
number. Etymologies of entries were provided in exceptional
cases. Technical names of plants and rocks were given as far
as possible along with descriptive meanings, written in modern
colloquial standard Whenever the meaning of a particular
word was not provided by the field worker or was not clear
from the field reports, the word itself was discarded. In order
to authenticate the enumeration of words and meanings, the
names and other particulars of informants, the place of collection
and (in the case of the fourth volume) the initials of the field
worker who gathered information were all provided in a tabula-
ted form between the detailed introduction and the word atlas.
Similarly, a brief linguistic analysis accounting for the pho-
nological changes, borrowings, literary importance of the
material, notes and dialect maps was also provided except in
the case of volume five relating to pottery The experiences of
the field workers were provided in volume one, a narrative
report on handloom industry was given in volume three, and
folklore surrounding pottery was detailed in volume five. More
details of the methodological approaches can be procured from
                                                        •

the introductions to respective volumes written in Telugu and English. The division of the state into four distinctive regions in terms of dialectal usage is clear from the bundles of isoglosses, phonetic and lexical, that run through the maps. The usefulness of the material for internal reconstruction and in arriving at a historical account of the regional distribution of rare alternations were demonstrated (Radhakrishna 1972, 282-289).

1.12. Theory results from generalisations of practical problems. Methodology evolves out of tailoring the solutions to those problems. Added to these are field problems which are far from being ideal and the fancies of the funding authorities. Both Theory and methodology have to be subjected to constant test in practical situations, checked and rechecked, revised and recast. But the final word is never said because all the problems are never known and are never solved. Indeed, lexicography like teaching, has never had only one methodology, constant and unrevised, absolute and slavishly followed. With this in view, it may be stated that the methodology evolved for Telugu dialect dictionaries was the result of the problems faced and solutions offered. According to Weinrech there is only a 'lexicographic approach' rather than a 'method' because lexicography itself used many methods, none of which have been fully explained' (1957:76). The methodology of the Telugu dialect dictionaries may even be revised while publishing the remaining volumes.

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THE TREATMENT OF SYNTAX IN BALA AND PROUDHA VYAKARANAS[1]

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The early Telugu grammars and their commentories were written in Sanskrit verses. They were mainly concerned about the derivation of Sanskrit borrowings, Sandhi and a few morphological processes. More detailed grammars in Telugu prose were written by Cinnayasuri (1809-1862), and Seetarama Charyulu (1827-1891) entitled Balavyakaranamu and Proudha Vyakaranamu respectively. The latter is the earliest traditional grammar which has a chapter on syntax. The former has some statement pertaining to syntax scattered in different places. An attempt has been made in this paper to gather some of the important notions and discuss the descriptive significance of them.

Telugu grammatical tradition is neither old nor very original. The early Telugu grammars, leading *Andhra Bhasha Bhushanam* by Ketana of the 13th century were composed in Sanskrit verses. *Andhra Sabda cintamani* a Telugu grammar in Sanskrit verses was believed by some scholars to have been written by Nannaya who was also the first translator of Mahabharata into Telugu. which was the first available written literary work in Telugu. Nannaya belongs to the 11th century. Some other scholars disputed Nannaya's authorship based on internal evidence. Another grammar of Telugu *Vikrti Vivekamu* which was supplementary to the earlier one was also written in Sanskrit verses. It was believed to have been written by Adharvanacharya of the 13th century. Again, the authorship is disputable. There was no reference of these grammars earlier than the 17th century. Ahobala wrote a commentary on both these grammars with the title *Kavisirobhushanam* which was again in Sanskrit. Since then there have been a good number of commentories in Telugu also. These two grammars including the commentory were the first detailed available descriptive account of literary Telugu. However, they were mainly concerned about the derivation of Sanskrit borrowings, Sandhi, and a few morphological processes.

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1. This paper formed the endowment lecture on Chinnayasuri and Seetaramacharyulu delivered at the XI All India Conference of Dravidian linguists held in Hyderabad in 1981.

More detailed grammars in Telugu prose were written by Cinnayasuri (1809-1862), and Seetaramacharyulu (1827-1891), entitled *Bala VyakaraNamu* and *ProuDha VyakaraNams*, of which the latter was a supplement to the former. Both of these grammars are popular among Telugu scholars and are used in graduate and Post-graduate courses in Telugu studies. Both of these grammars have been commented upon by eminent scholars.

Whatever may be the reason, syntax received less attention than morphology in Indian grammatical trad tion. We usually don't find a chapter in these grammars. *ProuDha VyakaraNa* is the earliest traditional grammar which has a chapter on syntax. *BalaVyakaraNa* has some statement peraining to syntax scattered in different places. I would make an attempt to gather some of the important notions and discuss the descriptive significance of them. I would have to clarify a point here before going into details. These grammars are prescriptive in intention but are descriptive in technique. Their main purpose was to guide the amateur writers in the literary tradition. They are rather stylesheets for the writers. Since they followed the descriptive technique, they are usefu aids in understanding the structural aspects of classical Telugu.

Karaka Pariccheda, the chapter on the cases is one place where we can find certain statements on syntax. This chapter deals with the case assignment for different semantic relations. The treatment of cases appears to be a three tier-system according to *Bala VyakaraNa*. First *Karakas* are assigned to different cases which are numbered one to seven. These cases are replaced by different case morphemes with the rules sensitive to the semantic, grammatical and phonological features of the noun. For example, a rule says the seventh case is assigned to *adhikarana* (Ba. ka. 17), and the next rule says the morpheme *na* is suffixed to the *u* ending inanimate noun (Ba. ka. 13). In the same chapter, the notion of *Karta* is defined. It would be interesting to examine Cinnayasuri's characterisation of *Karta*. *Karta* is not the surface subject in Indian tradition. However, it is not even agent. *Karta* seems to have been defined in somewhat vague semantic terms

like the following. *Karta* is that word on which the action denoted by the verb (ch efly) depends upon. *Karta* relationship cannot be changed by either passivization or causat vization. Observe the following examples given in *Kriya pariccheda.*

1. maitruDu wanTakamunu wanDenu
    'Maitra cooked the dish'

2. Maitruni ce:ta wanTakamu wanDabaDiyenu
    'The dish was cooked by Maitra'

3. caitruDu maitruni ce:ta wanTakamunu wanDincenu
    'Chaitra caused Maitra to cook the dish'

        maitra is the main noun, on which the action denoted by the verb directly depends upon and therefore it is the *Karta.* Passivization or Causativization either individually or together does not bring about any change in the *Karta* relationship. However, certa n classes of verbs like *pondu* 'reach' ; *teliyu* 'be known' ; *tinu* 'eat' ; *vinu* 'hear' ; *ceppu* 'say' ; *caduvu.* 'read' used in causative sentences, seem to change the relationship. The *karta* of the noncausative sentence becomes the *karma* of the causative sentence.

The following examples illustrate the following.

4. maitrunDu gra:mambun bondenu
    'Maitra reached the village'

5. caitrunDu maitruni gra:mambun bondincenu
    'Chaitra made Maitra reach the village'

Since the noun 'maitra' takes the accusative case, it is treated as an object or karma. It is interesting to note that the 3rd case marker-ce:ta-is not capable of changing the *karta* relationship, while *nin,* the 2nd case marker makes the relationship to *karma.* In the modern tradition the subject of the embedded sentence in causative matrix should have the same relationship irrespective of the case marker. However, in modern Telugu a contrast has developed between the sentences with different case markers.

6. subbammaga:ru suja:tanu cadivincindi
    'Subbamma caused Sujata to read'

7. subbammaga:ru suja:ta ce:ta cadivincindi
    'Subbamma caused Sujata to read'

The case relationship in the former sentence is of general nature and in the later it is specific. For example, the grammaticality of the following sentences is questionable.

9. subbammaga:ru suja:tani ingli:S paaTam cadivincindi
    'Subbamma made Sujata (acc) study English lesson

10. subbammaga:ru suja:ta ce:ta meDikal ko:rsu cadivincindi
    'Subbamma made Sujata (agentive) study a medical course'

The first sentence is possible in the sense that the causative agent applied some direct physical influence on the performing agent. We do not have evidence for such a contrast in classical Telugu. According to *Balavyakarana* (Kriya. 122) a sentence like *ni:wu cu:Dawalayu* 'You should see', the main verb *cu:D* 'see' is the subject of modal verb *valayu* 'should'. We do not know how a verb can be subject of another verb. Probably this view can be represented by having an embedded sentence in the subject NP position :
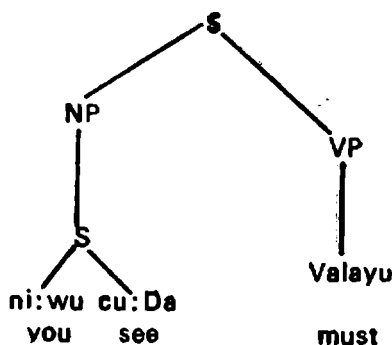
Since the verb is the only obligatory element in a Telugu sentence, we may have to take the verb as a representative of sentence under the dominance of NP. The author of *Bala Vyakarana* adds further confusion to the notion of *karta* while dealing with participle sentences. For example, in *Kriya-38* he makes the following rule.   -i- is added to the earlier time denoter among the common dependants (verbs). This can be paraphrased as the following. "In the case of verbs that express serial actions, all the verbs except the final one are changed into non-finite forms if they have common dependency". The grammarian notes in his explanation *(vritti)* that the common dependency is the key word. In similar places, the word *karta* is used in Sanskrit. The grammarian says sentences like *caitruni ce:ta maitrunDu koTTambaDi maDise* 'Maitra beaten by Chaitra' are possible by using *samaanaasrayas*, common dependents rather than *samaanakartra kaas* (having common *kartas*). In one place the grammarian says the dependency is the relationship of verb with *karta* and in another case as in the present rule, he makes a distinction between the dependency relationship and the *karta* relationship. The reason for this confusion seems to be in the way he characterised the *karta*. Partly the trouble is that the Indian grammatical tradition does not have different terms for logical subject and surface subject. The notion *karta* is close to logical subject but this non-finitization rule does not require logical subjects. This rule requires grammatical subjects for the verbs at the point of derivation. This can be applied before passivization or after passivization, based on the identity of the grammatical subjects at that point. To be fair to the grammarian, we must say that he observed that the notion of logical subject is not sufficient for the nonfinitization rule but he could not formulate it because the traditional theory does not provide a term for the general notion of the subject which varies depending upon the application of rules such as passive.

Chinnaya Suri's treatment of syntax has some interesting parallels with some current notions in linguistics. He assigns *ku* to the *karta* that has no cross-reference in the verb *(Kriya-124)*.

For example in

ra:munaku mithila ga:nambaDiye

'To Rama (dat.) Mithila appeared."

Rama is treated as *karta* inspite of its having dative case marker.

The grammarian assigns the dative *ku* (for him it is genetive) obligatorily if the verb is *kanu* 'to see'; *winu* 'hear'; *tinu'* eat' etc.   He identifies a *ku*-phrase as *prayojya karta*. in the following sentence.

'Viswa:mitruDu ra:muna*ku* mithila*n* ju:penu
Viswamitra (Nom) to Rama Mithila showed'
                          (dat.)   (acc.)

Chinnayasuri treats the above sentence as causative which can be represented in the following diagram.
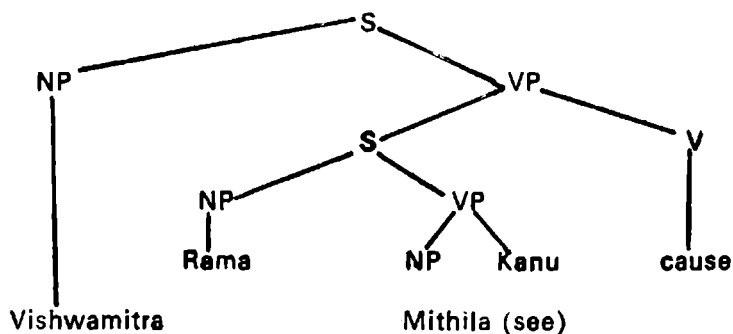
This requires predicate raising and transitive verb insertion besides case assignment rules, if it has to be fully processed. I am not suggesting here that Cinnayasuri implied Mc'Cawley's generative semantic model, but we can safely say that he treated the verb *ka:nipince* 'show' as a semantically complex lexical item.

The other syntactic processes with which Cinnayasuri was concerned were of minor nature, mostly pertaining to case change and agreement. For example in, *Karaka Pariccheda* the grammarian assigns the nominative case by a rule in place of accusative case if the noun is inanimate (Ba. Ka. 24). He also assigns the nom native case for the *Karta* of the embedded sentence when it is nominalised by a gerundive partic ple, relative participle etc. He gives the following examples.

(a) ra:muDu vaccuTa
     'Rama's coming'

(b) ra:muDu ra:ga lakSmaNuDu ga:nce
'Lakshmana saw when Rama arrives'

(c) ra:muDu villandinan trilo:kambulu a:kulambulagu
'When Rama takes his bow, the three worlds shiver'

(d) ra:muDu paTTina pratina va:rimpan darambu ga:du
'It is not possible to prevent the vow which Rama took'.

In the examples there are no alternative forms for (b) and (c), while genitive w th the underlying subject is seen for sentences (a) and (d) which have the clauses with gerundive and relative particple. These alternatives have been given in the *ProuDha Vyakarana*'. *ProuDha Vyakarana* has Similar case assignment rules but were left in *Bala Vyakarana*, like the assignment of nominative to the inanimate locative noun (Pr. Ka. 20), nominative for the animate plural nouns, instrumental and locative cases.

Chinnyasuri has also treated certain other syntactic processes like agreement and word order. He observes that

there is a hierarchy between third, second and first persons progressively with regard to subject-predicate agreement (Ka. 36). He means that if the subject is a coordinate noun phrase with any combination of three persons, agreement is governed by the hierarchy of first, second and third persons in that order. He also notes that if a conjunct noun phrase has a reflexive pronoun as a constituent, the agreement is for singular rather than for the expected plural, as stated in the earlier rule (ka. 36). However, the following example displays a more complex situation.

ra:muDu *ra vaNunParima:rci* si:tayun da:nu saumitri
sahitambuga: puSpaka:ru:DhunDay sa:ke:tambunake:tence.

'Rama, having killed Ravana, Sita and himself along Saumitri, came to Saketa by boarding on Puspaka.

parima rci is a participle for which Rama is the Subject. *e:tence* is the final finite verb for which the subject should be the same, according to the non-finitization rule that we discussed earlier. Therefore, this is not an agreement rule but a pronominalization rule where *ta:nu*, a third person anaphoric pronoun is used in the main clause Modern Telugu does not allow even pronominalization. Equi-NP deletion applies obligatorily in such cores. However, what is worth-noting in the example is that Sita is coordinated, with the pronominal substitute in the main clause. Chinnayasuri states that within a sentence exept in a few cases, all words can be used with no order restriction. The exceptions are certain clitics like *e:ni*. Since attributive constructions are compounds and all compounds are by definition words, the statement can be used with no order restriction. However, this rule ignores the focussing effect that results in the change of normal wordorder. We should not forget that these grammars were not meant for living language but for conventionalised classical language, and therefore word order has no significance.

Chinnayasuri has one rule in which he talked about relativization very briefly. Relativization is considered on par with the other attributive nominal constructions, which are

treated as karmadharaya compounds. (Chinnayasuri in a rule (Samasa. 26) states that 'the relative participle can have a noun phrsae with the relationship other than subject, like object. He also says that this head of the participle has focus. We can infer from the examples that the head noun can have a relation with the participle attribute besides karta (subject), accusative, instrumental, dative of indirect object, dative of destination and locative. These relativizations are also possible in modern Telugu. However, Chinnayasuri could also have pointed that some of these nouns could not express these relations if the subject of the participle is not present in the relativized phrase. This fact was mentioned in Campbell's Telugu Grammar. This has been treated more intensively in modern researches.

Sitaramacharyulu paid a little bit more attention to the details of syntax than Chinnayasuri. Whatever may be the source of inspiration, he has a separate chapter on syntax. He has rules pertaining to syntax at other places also. It has been an unfortunate tradition among Telugu scholars to de- grade Sitaramacharyulu by comparing him with Chinnayasuri. It is a fashion among the teachers of the Telugu grammar to prove that most of the rules of Sitaramacharyulu are unneces- sary, unorginal and unaesthetic. This is an unfair treatment to say the least. These scholars, have failed to see Sitarama- charyulu's contribution to the syntactic description of classical Telugu. I have found him the most original grammarian in the classical tradition in respect to the description of syntax. The critics of Sitaramacharyulu confine themselves only to the word-derivation and sandhi ignoring syntax and pass judgements on the relative merits of these grammarians. ProuDha VyakaraNa treats certain points of syntax in vakya pariccheda. The grammarian gives certain traditional notions of sentence and its constituents in general. For researchers probing into the grammar of classical Telugu, the methodology of Sitaramacharyulu is very useful, because for all his obser- vations he illustrates abundantly from the classical literary texts. We can test his formulations readily against the data and accept, reject or modify them. It is also useful for the study of the history of language because the chronology of

certain features can be established on the basis of the works.
The rules may not be as alliterative or euphonic as Chinnaya-
suri's but Sitaramacharyulu's purpose seems to be to go into
the details rather than writing memorizable rules.

Sitaramacharyulu, following the tradition, has case
replacement rules, many of which are supplementary to his
predecessor. He however, has many more independent rules
that cover agreements of various sorts, the subjecthood of
sentences with conjunct noun phrases, deletions (adhyaryas)
and stylistic devices. As the tradition doesn't object, he
freely used semantic properties for his syntactic rules.

Cinnayasuri formulated that the subject of gerundive
and relative participle would be in nominative. Sitaramach-
aryulu observes that the noun phrase would take genitivecase
Optionally. In fact, the use of genitive phrase in these con-
structions is older than the nominative.

Sitaramacharyulu has many interesting observations in
respect to participial relative constructions. He treated them
on par with other nominal attributive Constructions. He
observes that the relative participles could be attributes to
indeclinable like aTlu 'like' (Samasa.8.). Either a descriptive
adjective or a participle can separate possessed and possessor
construction of the inalienable type.

oDalu	tellani	turago:ttamu
body	white	horse best.

He stated the general participle (taddharma) could be used
in all tenses with no help of time adverbs (Kriya-1).
While Cinnyasuri stated that inanimate object doesn't require
accusative marker, Sitaramacharyulu notices that certain
animate nouns also do not require the accusative case mark-
ing and illustrates them from text where objects are the words
for elephant and horse.

Sitaramacharyulu observes many pragmatic uses of cer-
tain syntactic construction. Verbs with the addition of certain
addressive forms (like *ayya* and *aṃma* denoting male and

female, respectively) can be used in interrogation (Kriya-3), the non-past asserting verb has negative implication with the addition of addressives (Kriya-4), Equi NP deletion is also handled by *anwaya* as in the following statement. When there are more verbs the later verbs have valence with the previous verb that has a *karta* (subj) (Kriya.27).

ni:wu	ra:waccunu,	po:waccunu
you	can come,	(and) can go

Note that the second occurrence of ni:wu 'you' is deleted. Another relationship that handles deletion is *adhyaarya;* understood'. A repeated genetive noun is deleted when it expresses kin relationship (*Waakya-12*), certain diminutive particles like *aina, e ni, e:, o:* are deleted *(Waakya-13)* and in some cases either the *karta* (subject), or the *karma* (object) or the verb is deleted *(Waakya-*14). This means almost any element can be supplied from the context.

Sitaramacharyulu has some interesting observations on the selection of subject in a sentence sequence. In Telugu a sentence can begin with a sequential participle connecting it to and deriving from the verb of the previous sentence as in

a:me	inTiki	weLLinDi.	weLLi	nidra	po:yindi
she	home	went	having gone	(she)	fell asleep

In the second sentence, the subject should be the same for the participle and finite verb, (This point was discussed earlier, while talking about Chinnayasuri's dependency (samanaasraya) concept. However, Sitaramacharyulu found a violation and formulated it in the following statement.

A sequential verb (related to the previous finite verb) serves as a source for a new sentence, if it is required. If so, any member of the subject of the participle can be subject to the new sentence' (Waakya-16).

eg : (poem) dhawaLa:kSul		cani ka:nciri..........
the white eyed women		went and saw...........
(prose) *kani*	kadruwa	winatan *juuci*..............
having seen	Kadruwa	Winata saw................
	(noun)	(acc.)

The first participle in the prose sentences obviously has plural subject while the second one has singular though it is one of the members of the same set.

Sitaramacharyulu observed many more interesting pattetns of agreement than his predecessors. These are extremely useful for tracing the syntax of classical Telugu. He has a number of rules to describe the number, gender and case agreement between heads and attributes of various types, which are not discussed in detail here. There are more interesting observations on subject-predicate agreement in respect to gender, number and person. He observes that a mass noun in singular governs plural agreement in verb as in

munini   ka:yamellan...............
'The whole   group of sages (sg).
atani (n)   bu:jinciri (pl).
him   worshipped.   (Sabda-17).

Sitaramacharyulu notices some peculiar cases of agreements where the subject is conjunct Noun Phrase but the verb agrees only with one of the constituents.

I, II, III persons (Kriya-26).
     eg. a. wipr a   kulunDa ! welwaDumu   ni:wunu nii
         Oh !   Brahmin   comeout you   and   your
                                 (II sg)

niSa:diyun.
(tribal) girl (and).
     b· ne:nu   na: se:nayu   da:DiweLLeda.
         I   (and) my   army   invade (I sg)

Even more surprising are the cases where the verb agrees with the nearest member of the constituent of the conjunct noun phrase, inrespect to gender and number (Waakya-15).

eg. sura, gandharwa prabhrutulu dharaNi: saila
     Sura Gandharva   etc.   earth Mountains
     (a set of demi gods)

a:paga, abdhi   dha:tri:ja:dul,   ni:k   e:(y)
rivers. oceans,   (and) trees etc.   to you what
apakrti ga:wince
harm did (sg).

Sitaramacharyulu, has also dealt with some stylistic devices in his grammar. He observes *iTlaniye* 'he said thus' occurs in the beginning of narration *anina* 'when (he) said thus' occurs after the completion of the narration (Waakya-10). He also mentions a style in which a small sentence embodies the essence of the following narration (Waakya-20).

Finally, I would like to make it clear that this essay is not a complete account of the treatment of syntax of Chinnayasuri and Sitaraamacharyulu nor is it completely evaluative of their works. The purpose of this paper has been to show that the traditional grammars have many illuminating insights, though they lack sufficient technology. I also think that we certainly benefit by thoroughly examining them.

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CONSTRAINTS ON CONSONANT
COMBINATIONS IN MANDA[1]

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Manda is a non-literary minor language spoken by a section of the Kondh tribe inhabiting the Thuamul Rampur area of Kalahandi district, Orissa. It is a member of the South Central Dravidian subgroup and structurally close to the other Kondh languages such as Pengo, Indi-Awe, Kuvi and Kui. In this paper, consonant combinations in Manda taken from the field notes of Ramakrishna Reddy are analysed. The present study restricts its observations to the consonant combinations that can occur within isolated words of monomorphemic structure, excluding sequences that arise across word boundaries due to Sandhi alternations.

Introduction

Manda is a non-literary minor language spoken by a section of the Kondh tribe inhabiting the Thuamul Rampur area of Kalahandi district, Orissa. It is a member of the South Central Dravidian subgroup and structurally close to the other Kondh languages such as Pengo, Indi-Awe, Kuvi and Kui. Manda was identified as an independent language in 1964 by Burrow and Bhattacharya, but they could collect some lexical items only which were included in the DEDS. An extensive fieldwork on this language has been done by Ramakrishna Reddy and the consonant combinations analysed and discussed in the following pages are taken from his field-notes and publications.

The term consonant combination may be used here to refer both to consonant cluster and consonant sequence, as the two are distinguished from one another on the basis of their occurrence or non-occurrence within a syllable. A series

or a sequence of consonants is called a cluster if they occur in one and the same syllable, and a sequence if they occur in two consecutive syllables (see Pulgram 1965 and Nagamma Reddy 1980). This definition, however, presupposes the notion of syllable (established) as a basic unit. At least there is a grammatical criterion for a two-way division of monosyllabic versus polysyllabic words in Manda as discussed in Ramakrishna Reddy (1986). The consonant combinations that occur in word-initial and word-final positions are treated in this paper as clusters and those which occur exclusively in word-medial position as sequences. This is because the word-initial and word final consonant sequences occur as units belonging to the following or preceding vowel respectively, whereas the word-medial are broken down into two separate units belonging to two different syllable nuclei (i.e. the vowel preceding and following). This distinction between cluster and sequence is not clearly maintained in the analysis of the Indian languages. A sequence of two consonants will have to form part of the same syllable if it has to be considered a consonant cluster.

The present study restricts its observations to the consonant combinations that can occur within isolated words of monomorphemic structure, and thereby excludes sequences that arise across word boundaries due to Sandhi alternations. In other words, we will be talking about the morpheme internal clusters and sequences focussing on the vowel nuclei.

The phonemic system of Manda consists of the following consonantal phonemes : /p, t, T, k, b, d, D, g, j, s, h, m, n, N, ṅ r, ṛ l, v and y/. Of these, N ṅ y, do not occur in the word-initial position, whereas all the consonants occur word-medially. The distinction of voiced versus voiceless is confined only to the plosives, i.e. there is no voicing contrast in fricatives, nasals, liquids and semiconsonants. ·Only the fricatives are voiceless whereas the nasals, liquids and semiconsonants are all voiced. The contrast of length in consonants is not uniform in that not all consonants show the distinction between short (single) versus long (double) consonants. The latter are treated as geminates consisting of

two identical phonemes.

In Manda the two-consonant combinations occur in all the three positions of a word. The largest possible combination in this language is only upto three consonants (CCC) and this is found only in the word-medial position. As noted above, the inventory of the number of consonantal phonemes in Manda is 20. Therefore the logically possible sequences of length 2 should be $20^2 = 400$. Of these only 172 are attested in the data. For length 3 the logically possible number of combinations is $20^3 = 8000$. Of these only 22 combinations do actually occur in Manda. The absolute number of combinations of length 2 (i.e. 172) is greater than those of the length 3 (i. e. 22).[2] Thus the number of combinations of two consonant sequences is greater than the number of either the individual phonemes or the number of three-consonant combinations. However, these 22 three-consonant sequences occur only in word-medial position and can be syllabified or divided into C. CC or CC. C which means there are no three-consonant clusters in Manda. The following is a detailed discussion of the distribution of consonant sequences in Manda occuring in all the three positions of a word together with their sequential constraints.

2. Two-consonant combinations ($C_1 C_2$)

The Table given below lists all possible word-initial, medial and final two-consonant combinations in Manda.[3]

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2. For a further elucidation and the universal validity of these findings see Greenberg, 1978 : 249.

3. No attempt has been made here to distinguish whether a cluster occurs in native words or only in borrowed items.

SECOND CONSONANT

FIRST CONSONANT

	p	t	T	k	b	d	D	g	j	s	h	m	n	N	n	r	ṛ	l	v	y
p	o		o	o										*		*	*			o
t	o	o		o										*		o	o			o
T	o		o	o							o			*		*	o	o	o	o
k	o					o	o	o	o	o		o		*		*	*	o	o	o
b						o	o						o		o	*	o	o		o
d				o		o	o	o	o	o						*		o		o
D		o		o		o	o	o	o	o				o		*		o	c	o
g						o	o		o		o		o			*	*	o	o	o
j	o							o				o				o				o
s	o	o	c	c						o				o		o				
h	o	o		o							o	o	o			o	o			
m		o	o	o	+	o	o	o	o	o	o		o	*		*	*	o		
n	o	o		o	o	+	o	+		o		o	o				o			
N			o				+			o										
ŋ				o				+						o				o		
r	o	o	o	o	o	o		o	o	o	o	o	o	o		o	o	o	o	o
ṛ	o	o		o	o	o	o	o			o								o	o
l	o	o	o	o				●		o				o				o	o	o
v			o	o			o			o	⌣					o	o			
y				o		o	o					o				o				

Table of two-consonant combinations

(* = Initial and medial; + = Final and medial; o = only medial)

The vertical line of consonant symbols at the left represents the consonant which can occur as the first element (referring to the consonants in sequence or cluster, reading from left to right always irrespective of their position in a word) and the symbols across the top represent the consonants which can occur as the second element. The consonants listed are the full set of phonemes, whether or not they actually occur in combination with other consonants. An asterisk indicates the consonant clusters that can occur word-initially and word-medially, and a plus indicates the clusters that occur word-finally and word-medially whereas a small circle indicates only the word-medial consonant combinations. As can be seen from the Table all initial and final consonant clusters occur word-medially, but not vice-versa. Though all initial and final clusters occur word-medially, it is striking to note that the initial clusters do not occur word-finally and the word-final clusters do not occur word-initially. The following are the examples of two-consonant combinations in all the three positions of a word.

Examples of two-consonant $(C_1 C_2)$ combinations in word-initial and medial position (word-final combinations are given further below.)

Two Consonants	Word-Initial		Word-Medial	
pp			˙ Dippaha :	'to shoot each other'
pT			ka:pTa	'knee cap'
pk			tu:pka	'sacrificial meat'
pN	pNa:	'old'	TipNi	'a basket'
pr	pɾey	'rice'	ma:pru	' od'
pɾ	peɾ:n	'bone'	'kapɾa	'head'
py			ra:pya	'Tuki-scavenger'
tp			gu:tpaha :	'to wrestle'
tt			atta	'water cooler'

Two Consonants	Word-Initial		Word-Medial	
tk			e:tki	'to think'
tr	trehe	'snake'	jetra	'grinding stone'
tr̩			hitr̩i	'shade'
tl			kitle	'castor'
ty			hatyar	'farm-instrument'
Tp			naTpaha :	'to bargain'
TT			aTTu	'attic'
Tk			muTka	'fist'
Th			Ru:Thi	'last before year'
TN	TNu:k	'to swing'	ku:TNi	'bolt-ring'
Tr	Trak	'to strike'	Du:Tra	'neck'
Tr̩			TiTr̩u	'male myna'
Tl			aTla	'dry land'
Tv			puTva	'a fly'
Ty			ga:Tya	'village-guard'
kp			va:kpa	'to drip (repeatedly)'
kd			nikdel	'a good woman'
ks			kaksa	'a glutton'
kh			rakheṅ	'demon (she)'
kn			hukni	'leaf cup'
kN	kNuvan	'fat'	jekNi	'a hole'
kr	kri :	'to play'	Tikra	'hillock'
kr̩	kr̩ema	'petal'	makr̩i	'monkey'
kl			Dikla	'a bundle'
kv			Takva	'adam's apple'
ky			kukya	'blow of fist'
bD			pabDihi :	'to throw away'

Two Consonants	Word-Initial		Word-Medial	
bg			kabga :	'to vomit'
bN			TubNi	'a pond'
br	bri :	'to bite as abird'	lubra	'a miser'
br̺			gubr̺a	'festival-feast'
bl			sublayki	'to rinse'
by			sa:bya:r̺	'lady-officer'
db			budba:r	'wednesday'
dd			buddihi :	'to take an oath'
dD			udDa a :	'to pull up'
dg			gudga	'flame'
dh			mudha:ri	' guana'
dr	drik	'to unroll'	gudri	'ceiling'
dl			badlayki	'to change'
dy			badyaki	'to castrate'
Dt			baDte	'rope'
Db			muDbaha :	'to quarrel'
Dd			baDde	'bull'
DD			buDDa	'younger brother'
Dg			Ta : Dge	'a large spoon'
Dj			aDja a:	'to choke'
DN			puDNa	'a plant'
Dr	Dre:kuN	'bed-bug'	gaDra	'ram'
Dl			guDli	'a pebble
Dv			buDve:l	'bubble
Dy			buDya	'old woman'
gd			Digda:	'to come in contact with'

Two Consonants	Word - Initial		Word-Medial	
gD			agDa	'much'
gj			pagje man	'to ambush'
gh			vakhe righe	'with much trouble'
gN			hi:gNe	'summer fly'
gr	gruki	'cough'	pagra	'watch-hole'
gr̩	gr̩ih	'to slip'	ba:T ga:gran̄	'wayside liquor'
gl			bagla a:	'to overflow'
gv			sogva	'green'
gy			dugya	'tobacco'
jp			aga:jpur	'sky'
jj			ejjel	'a suitable bride'
jn			vi:jni	'ending'
jr			pajra a:	'to leak'
jy			majya	'middle'
sp			vespe	'finger'
st			sasta	'cheap'
sT			sesTa ki	'to attempt'
sk			iske	'fire'
ss			kossa	'brass'
sr			kusri	'dog'
hp			uhpa:	'to wear clothes'
ht			bahti	'city, town'
hk			ehki	'thirst'
hm			rahmu	'Tuki sacrificial animal'
hn			vehney	'hot water'
hN			mahNi	'ghost'

Two Consonants	Word - Initial		Word-Medial	
hr			bihri	'bamboo hallo to fish'
hr̩			kuhr̩a	'a kind of grain'
mt			lamta	'domestic worker'
mT			simTa	'tongs'
mk			Tamki	'a drum'
mb			pemba	'mother's elder sister's husband'
md			hamdi	'a relative'
mD			hamDa	'twig-temple'
mg			a:sumgar̩	'a married woman'
mj			ta:mji	'his son'
ms			gamsa	'towel'
mn			emni	'which one'
mN	mNing	'waist'	hi:mNa	'young one'
mr	mreh	'moustache'	jamra	'cockroach'
mr̩	mr̩ika	'evening'	kumr̩e:l	'butterfly'
ml			jemli	'ear-ornament'
np			taNanpur	'earth'
nt			panti	'tall'
nk			inanka	'whom'
nb			inbah a:	'to be known as'
nd			mundul	'beginning'
nD			le:nDi	'goat-dung'
nj			ga:nja	'a cock'
ns			ma:nsik	'a promise'
nm			kanmaTa	'eye brow'

Two Consonants	Word - Initial	Word-Medial	
nl		kanliya	'pupil'
NT		iNTiṅ	'this side'
ND		ka:NDi	'bamboo'
Nh		paNhe	'jack fruit'
ṅk		iṅka	'where'
ṅg		Du:ṅga	'valley'
ṅN		he:ṅNe	'an insect'
ṅl		aṅla	'yawn'
rp		urpu:N	'fountain'
rt		bartaniṅ	'lasting'
rT		harTi	'small'
rk		burka	'tiger'
rb		gurba:r	'thursday'
rd		harda	'happiness'
rg		hergi maɽ	'sal tree'
rj		merji	'pepper'
rs		barsahi:	'to console'
rh		harhu	'mustard'
rm		darmu	'ashes'
rn		herna	'deer'
rN		jarNa	'stream,
rr		herra:	'to graze'
rɽ		kurɽu	'the levelling rod'
rl		urli	'mouse'
rv		terve:l	'flag'
ry		mudradarya	'a member of the Tuki committee'
ɽp		torɽpuja	'sacrificial animal'

Two Consonants	Word - Initial	Word-Medial	
ṛt		kuṛta	'shirt'
ṛk		guṛka	'a stringed instrument
ṛb		kuːṛbela	'lunch time'
ṛg		maṛge	'next year'
ṛj		aṛja aː	'to choke'
ṛh		gaːṛhi	'daughter'
ṛv		aṛvaṅ ah	'to mate (as animals)'
ṛy		naṛya	'coconut'
lp		gulpa	'short'
lt		selta	'wick'
lT		dalTi	'big'
lk		dulkuN	'spring festival'
lg		alga	'a lot'
lh		naːlhi	'morning'
ll		belleke	'an appreciation'
lv		tulve	'dust'
ly		alya	'a furrow'
vT		ivTiṅ	'this year'
vd		sovde	'fourteen'
vh		devhe	'roof'
vn		giːvniy	'ghee'
vr		haːvriya urli	'a tree dwelling mouse'
vṛ		eːvṛin	'spit'
yb		roybaːr	'sunday'
yg		tuyga	'to go and wear'
yj		saːyju	'help'
yn		saːyni	'a flirt'
yr		koyṛa	'yellow'

As can be seen from the examples listed above, the number of consonant combinations in word-medial position is considerably larger than the number of word-initial ones, and the word-initial clusters are more in number than the word-final clusters. The sequential types are about 172 in word-medial position, 17 in word-initial position and only 5 in word-final position. The list also shows that the word-final clusters are in complementary distribution with word-initials. Thus the two consonant clusters that can occur at the beginning of a word do not occur at the end of a word in a cluster, which directs us to treat them as two independent systems.

2.1 Word-initial two-consonant combinations $(C_1 C_2)$

Out of the 20 consonantal phonemes, only 9 can occur as the first member of an initial two-consonant cluster, and only 3 as the second member. The following is the pattern of word-initial two consonant clusters :

$$C_1 + C_2 -$$
P – N, r, ɽ,
t – r
T – N, r
k – N, r, ɽ,
b –   r
d –   r
D –   r
g –   r, ɽ
m –   N, r, ɽ

Initially C_1 can only be a stop (oral or nasal, voiced or voiceless) but C_2 can only be a voiced flap (nasal or oral) and a trill. C_2 is restricted to alveolar or near-alveolar place of articulation. The combinations of C_1 and C_2 need not agree in voicing.

The general consonant cluster patterning at the beginning of a word appears to be a plosive or a nasal plus a trill, flap, or retroflex nasal. The fricatives, lateral and semi-

consonants do not appear to occur either as the first member or as the second member. Only the plosives (both voiced and voiceless) and the bilabial nasal occur as the first member of the initial cluster. In the second position, as C_2, only retroflex nasal, flap or trill occur. Among these the trill is the most frequently occurring second element of an initial two-consonant cluster. One striking difference in the patterning of initial clusters is that between the voiced and the corresponding voiceless plosives. Only the voiceless plosives, with the exception of dental plosive, seem to combine with a retroflex nasal, whereas none of the other voiced plosives combines with a retroflex nasal. All consonants which can occur as the first member can combine with a trill, but the retroflex flap and nasal appear to occur rarely with voiced plosives. The retroflex nasal seems to have certain preference to combine with voiceless plosives than with the corresponding voiced ones.

All these clusters which can occur at the beginning of a word in Manda, support Sigurd's rule (1955:13) that "if there is the initial combination /xz-/, there is no initial combination /zx-/". That is, the consonants which can occur as C_1 do not occur as C_2 and the consonants that can occur as C_2, do not occur as C_1 in forming a word-initial two-consonant cluster. There are no cases of plosive plus plosive or plosive plus fricative. However, there are both heterorganic and homorganic combinations in initial position in Manda. But the heterorganic clusters are larger in number than the homorganic type.

2.2 Word-Medial two consonant combinations (-C_1 C_2 -)

There is a variety of combinations that can occur in word-medial position than in word-initial position i.e. the, word-initial two-consonant clusters show more restricted patterns than the word-medial two consonant combinations. There are certain restrictions on the way these consonants are also combined in word-medial position.

It is obvious from the chart (i.e. table) that even in word-medial position, every consonant does not combine with every

other consonant. It is interesting to note that the velar nasal /ṅ/does not combine with any consonant as a second member of the sequence, whereas the trill /r/has the maximum number of combinations both as a first and the second member of the sequence. There are also stop consonants (including the flap) followed by aspiration occurring only word-medially and treated as sequences rather than units in this language.

Generally, with a few exceptions, voiced plosives do not occur after vioceless plosives and the voiceless plosives do not occur after voiced plosives. There are a few instaces of voiced-voiceless and voiceless-voiced combinations such as /kD/or/dT/. However, the nasal + plosive combinations need not agree in voicing, i.e. there are both homorganic voiced and voiceless plosives after a nasal in Manda, as is the case with Telugu, but not with Tamil.

When the fricative /s/ occurs as a first element in the sequence (from left to right), the second element can only be a voiceless plosive or a liquid, i. e. a fricative does not occur before a voiced plosive. Therefore the fricative and nonplosive combinations agree in voicing whereas the fricative and nonplosive combinations do not agree in voicing. According to Greenberg (1965:17) liquid and sibilant do not occur together. There is a counter evidence to this statement from Manda which is similar to Telugu (see Nagamma Reddy, 1980:94). The fricative /s/ as a second member occurs more frequently after a nasal/trill than after a plosive. The combinations of both plosive-plus-liquid, and liquid-plus-plosive are also possible in this language. However, lateral as a first member does not combine with a nasal or a trill. That is, if we compare Manda words with Telugu, there are sequences of both liquid-plus-nasal and nasal-plus-liuqid combinations in Telugu, whereas in Manda there are no liquid-plus-nasal combinations.

Bilabial nasal has a wider combinatorial possibilities as the first member of a sequence than as a second member, which is rather reverse with retroflex nasal, which shows its distribution quite different from /m/, wherein /N/ occurs as a

second member in a large number of combinations than as a first member where very few combinations are found. The trill /r/ as a first member combines with a plosive or a glide /v, y, h./. The semiconsonants, /v/ and /y/, do not occur as second members of the sequence after a fricative, nasal or a semiconsonant. That is, there are no instances of fricative-plus-semiconsonant combination or nasal-plus-semiconsonant combination or semiconsonant-plus-semiconsonant combination. The glides occur most commonly as second members with plosives and liquids. There are still further restrictions on the occurrence of /y/ as a first member which do not combine with voiceless plosives or the consonants other than an alveolar nasal or a trill. One of Greenberg's generalizations is that voiced semi-consonants are not followed by obstruents. Although this is supported by Telugu, the data from Manda show the existence of semi-consonant-plus-plosive combinations.

2.3 **Word-final two consonant combinations (-$C_1 C_2$)**

These are very few in number and are generally of homorganic type of combinations as shown below :

$-C_1$ + C_2		**Examples**	
m	— b	Dimb	'to be cracked'
n	— d, j	gu:nd	'mushroom'
		vanj	'to be cooked'
N	— D	nuND	'to kiss'
ṅ	— g	ta:ṅg	'to wa'k'

Thus in word-final position, C_1 can only be a nasal and C_2 can only be a homorganic stop which is very different from word-initial system of consonant clusters.

The sequence /nj/ should not be interpreted as heter organic nasal plus affricate combination. It is phonetically a palatal nasal followed as a member of a /n/ phoneme. Although it would mislead us when the combinations are classified as heterorganic versus homorganic on the phono-

logical basis, it is phonetically a homorganic combination.
Since the consonants listed in the chart (i. e. table) represent
their phonemic status, the sequence is given as /nj/ for the sake
of consistency, though one should draw general conclusions on
the phonetic classificatory basis in comparing the languages
(see Greenberg, 1978:246; Fischer-Jorgensen, 1952). In Manda
the final system of clusters, phonetically, appears to have only
homorganic combinations, (i. e. there are no heterorganic
combinations in this position).

The patterning of word-final two-consonant clusters,
however, is different from word-initial two-consonant clusters,
where there is a tendency for word-initial clusters to be mostly
heterorganic than homorganic, and for the word-final clusters
are homorganic than heterorganic. Besides, the existence of
final clusters with a structural pattern of homorganic combina-
tions rather than heterorganic and homogeneous in voicing
than non-homogeneous supports Greenberg's generalization on
the assimilation of consonant combinations (1978:270).
Furthermore, looking at the clustering pattern of both word-
initial and word-final consonants, it may be pointed out that in
consonance with language universals there is a tendency in
Manda for sonants to be adjacent to the peak of the syllable.

3. **Three-consonant combinations $(C_1 C_2 C_3)$**

Three consonants in a sequence are found in Manda only
word-medially (i. e. there are no word-initial or word-final
three-consonant clusters). The patterning of these three-
consonant combinations can be represented, diagrammatically,
as shown on page 52.
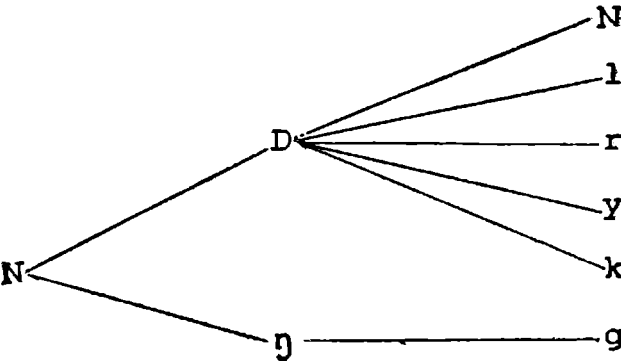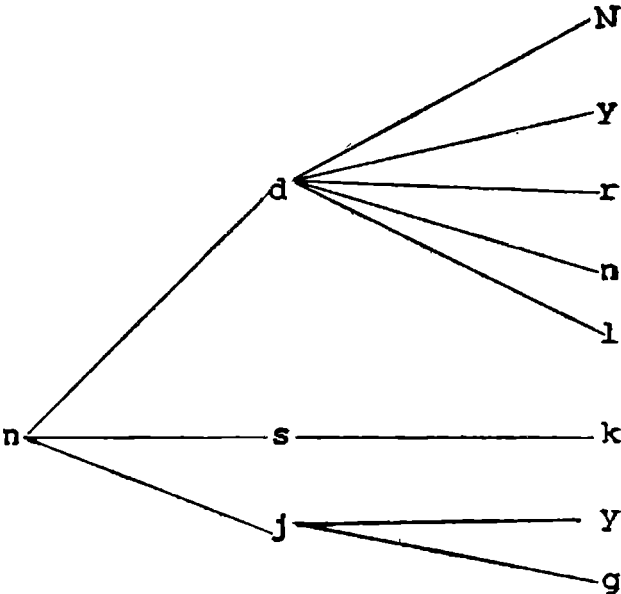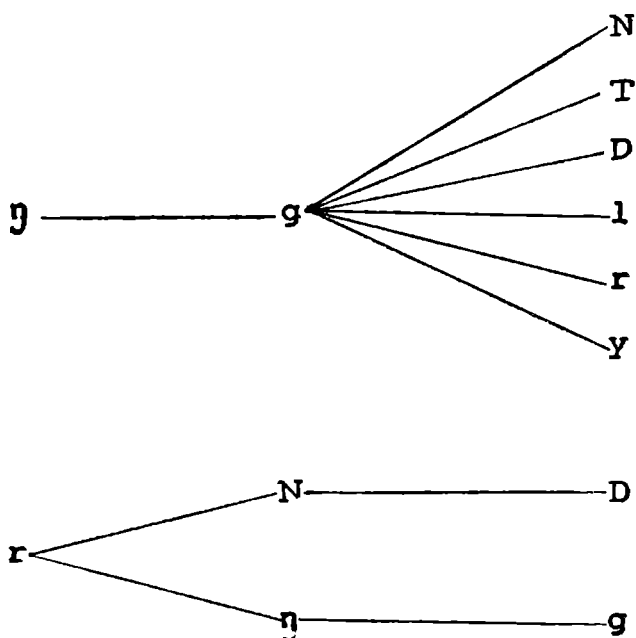
Examples of three-consonant ($C_1 C_2 C_3$) combinations

ndN	ra:ndNi	'a cook'
ndy	mandya vespe	'index finger'
ndr	kindray ki	'to nod'
ndn	bindna	'chisel'
ndl	gundla	'a piece of slick'
nsk	vanskam	'go and cook'
njy	manjya	'middle'
njg	a:njge	'hailstorm'
NDN	maNDNa	'a circle'
NDl	ha:NDli	'mistress'
NDy	eNDya	'breeding'

NDr	aNDra	'male, man'
NDk	Te:NDka	'a garden lizard'
Nṅg	juNṅga	'a variety of lentils'
ṅgN	teṅgNa ki	'to pile up'
ṅgT	be:ṅgTa	'frog'
ṅgD	pi:ṅgDeNDe:r	'anus'
ṅgl	biṅgla	'chameleon'
ṅgr	roṅgrasiya	'a flirt'
ṅgy	duṅgya	'tobacco'
rND	karNDimin	'cadfish'
rṅg	gurṅgula	'a tinkling bell'

Observe that there are only 4 consonants/ n, N, ṅ r/ occurring as the first member (C_1), 7 consonants /d, D, g, j, N, ṅ, s/ as the second member (C_2) and 9 consonants /T, D, k, g, n, N, l, r, y/ as the third member (C_3). There are certain sequential constraints on the way these three consonants are arranged within the word-medial position. Only a nasal consonant can occur in all the three positions in this system. These combinations do not all contain the permitted two - consonant combinations, which violates the general assumption that longer sequences are formed from shorter sequences. Hjelmslev (1936:5) states that as a general phonematic law, if a language admits more complicated clusters, consisting of more than two consonants, these complicated consonant clusters never admit combinations which are not admitted in simple clusters of the same language. Though this is true for Telugu (see Nagamma Reddy, 1980), it does not seem to be the case with Manda. But we must remember that Hjelmslev may be talking of clusters that belong to the same syllable, whereas in Manda we are talking about the sequence of consonants which may not belong to the same syllable.

In Manda material there are a number of unresolvable sequences, such as for instance in /Nṅg/ the /Nn/ as a sequence or in /rṅg/ the /rṅ/ as a sequence are very rare among the two-consonant combinations. Therefore the constraints on

possible sequences of two-consonants in medial position (when another consonant precedes or follows) are not the same.

However, the number of completely resolvable sequences is greater than the number of those which is not completely resolvable. Here the morphemes occur without any internal boundary. The partially resolvable sequences in three-consonant combinations appear to favour part of it a homorganic nasal and a plosive sequence either the first two CCs or the last two CCs. If one treats these homorganic sequences as a special case, when compared to other sequences, by treating them as unit phonemes (in terms of articulation) rather than a sequence, then these three-consonant combinations would be listed as two-consonant combinations or the syllable division falls between C_1 C_2 and C_3 (CC.C) or C_1 and $C_2 C_3$ (C.CC) as in /nd + N/ or /r + ṅg/. If this strategy is adopted, we can say that every contiguous sequence in three-consonant combinations is completely resolvable (cf.Hjelmslev, 1936). Otherwise we end up with non-existent two-consonant combinations in the three-consonant sequences. There is a general tendency in Manda for the first two members of the three consonants to represent word-final two consonant combinations, and the last two to represent the word-medial two-consonant combinations.

The distribution of these three-consonant sequences also shows that the first consonant in three-consonant sequences is generally a nasal and the second consonant is generally a homorganic obstruent. Except the nasal and a trill, no other consonant can occur (as C_1) in the first position of a three-consonant sequence. Only a voiced oral or nasal stop and a voiceless fricative can occur (as C_2) in the second position of a three-consonant sequence. Liquids or semi-consonants do not occur in this position. The third member (i.e. C_3) of the sequence can never be a fricative or a bilabial or a dental plosive. Only liquids, palatal semi-consonant, the retroflex or velar plosives, the alveolar or retroflex nasals can occur in this position. They generally pattern in the following way :

(i)   Nasal + Obstruent + liquid, nasal, plosive, or
            or nasal   semi-consonant

(ii)   Trill + nasal + plosive

It may be observed that only the nasal occurs in all the three positions whereas a trill occurs either in the first or in the third position and an obstruent or a plosive occurs either in the second or the third position.

4. SUMMARY

The homorganic clusters that occur initially and finally in a word have different ways of patterning with each other. In the initial position the order of the sequence is plosive + homorganic nasal (e.g. /TN/), but in final position the order is nasal + homorganic plosive (e.g. /ND/). This reverse order of sequencing in relation to position in a word, supports Greenberg's statement that there are preferences based on the relation to the peak of the syllable.

It may further be observed that among the two-consonant combinations, all those clusters that occur in the word-initial and/or word-final position can also occur in the word-medial position, but not vice-versa. In other words, the medial combinations are predictable on the basis of the patterns of clusters in either of the other two positions.

Since there is a large number of two-consonant sequences when compared to the three-consonant sequences, the shorter sequences (or clusters) are preferred over the longer ones, and the sequences which are analyzable into sub-clusters which likewise occur are preferred over those which are unanalyzable. In general, the patterns of homorganic nasal + obstruent are preferred over heterorganic nasal + obstruent. The obstruent combinations which are homogeneous in voicing are preferred over those which are heterogeneous. The plosive + plosive combinations (except the voiceless velar plosive and voiced retroflex plosive) agree in terms of voicing. Three-consonant sequences can occur only word-medially.

In the case of three-consonants in a sequence, the syllable division falls between C_1 and C_2 in some instances and between C_2 and C_3 in some other cases. If this two-way division is not adopted, we will end up with non-existent two-consonant sequences such as /r/ and /ñ/; or /d/ and /N/ from sequences of the type /rñg/ and /ndN/ respectively. In other words, the proposed two-way division of syllable accounts for the phonetically-based natural sets of two consonants as against the non-homorganic third consonant, which may precede or follow.

Finally it may be observed that not all consonants combine with all other consonants. The two-consonant combinations are preferred over the three, and a greater number of combinations is possible in the word-medial position than in the word-initial or word-final position. The initial and final systems are entirely different from each other. The word-initial clusters mostly are of heterorganic type, whereas the final sequences are of only homorganic type, and the medial combinations are made up of heterorganic as well as homorganic consonants. The final clusters when they are homorganic, they must also agree in voicing. The clusters that occur word initially do not occur word-finally. Only initially and finally two stops of the same points of articulation do not follow each other, i.e the geminate stops occur only word medially.

Another interesting feature of consonant combinations in Manda is that unlike in Hindi (cf Ohala, 1983:56, 62) an oral retroflex flap /ɾ/ can form a cluster. It occurs in Manda as a second member of an initial cluster preceded by a voiced or voiceless nasal or oral stop and as a first or second member of a medial sequence.

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SOME OBSERVATIONS ON NOUNS OF LOCATION
WHOLES, PARTS AND EXTREMITIES

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The notions 'Whole', 'Part' and ·extremity· are introduced by Leech
(1969) to describe the spatial expressions in English. Lyons (1977) also
further discusses these concepts. In the case of Leech, from the very title of the
work and from the data cited it is clear that the generalizations arrived at are
for English only and may or may not be true for other languages. In the case
of Lyons, it is ambiguous whether the generalizations he made are for English
or other languages also. In this paper, the author examines these notions in
the light of the data from Punjabi and tries to study as to how these concepts
are needed as theoretical constructs to classify the nouns of location.

There are various parameters on the basis of which the
'nouns of location'[1] can be grouped into various classes and
which function as the determining principles for the locational
divisions within a 'physical object noun'. These parameters are:
dimensional extension having linguistic relevance[2]; orientation

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1. A noun of location refers to a physical object which allows some 'places' or
space for the location of another object. We are using the terms 'noun of
location', 'physical object noun' or 'physical object' synonymously (cf.
Daswani, 1977).

2. In terms of real world situation each and every object has three-
dimensional extension in space. But all the dimensions of a particular object
may not have linguistic relevance. For instance in the example below :

> kursi kol
> chair near
> 'near the chair'

The postposition *kol* treats the noun merely as a point of reference
irrespective of its dimensional extension. So to explain the collocational
restrictions in Punjabi between the postposition *kol* and nouns of location we
can use the label ⊕ zero-dimensional for any noun of location. But in the
case of the postposition *vicc* 'in' the noun of location have to be 3D (three-
dimensional). Hence,

> ★ Kursi vicc
> chair in

of their extension in space[3]; the nature of the way they are confronted[4]; and whether they are 'wholes', 'parts', or 'extremities' etc.[5]

In this paper we take up the notions of 'whole', 'part' and 'extremity' and study as to how these concepts are needed as theoretical constructs to classify the nouns of location. It may be mentioned here that these notions were introduced by Leech (1969) to describe the spatial expressions in English. Lyons (1977) further discusses these, but his treatment leaves a scope for ambiguity. In the case of Leech, from the very title of the work *Towards a Semantic Description of English* and from the data cited it is clear that the generalizations arrived at are for English only and may or may not be true for other languages. But in the case of Lyons though the data cited is from English yet the very title of the work *Semantics* and lack of any explicit statement about the generalizations, as to whether they were claimed as generalizations for English or other languages also, creates the impression that these generalizations are of universal application. This paper examines these notions in the light of the data from Punjabi [6].

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3. For instance *khu:h* 'well' and *kamra* 'room' both are 3D nouns but because of their difference in orientation they behave differently :

> Dungha khuh
> deep   well
> but,
>
> ★ Dungha : kamra :
>   deep   room

4. What Clark (1973) calls the canonical encounter.

5. For the application of these parameters to the English data see Leech (1969), Lyons (1977) and to the Punjabi data see J. Singh (1987).

6. Though, with respect to Punjabi, these notions were discussed in J. Singh (1987). Yet the present treatment is quite an improvement on that.

The following examples will make the distinctions between 'whole', 'part, and 'extremity' clear.

1. a.   Kamre   vicc 'in the room'
            room + OBL in

     b.   pa:sse   (vicc) 'in the side'
            side + OBL in

     c.   pa:sse   te   'at/on the side'
            side + OBL on

We see that the nouns in 1. a, b and c, *kamra:*, *paissai* and *paissa:*, respectively, are all nouns of location. But the *kamra:* (1.a) differs from *pa:ssai* (1. b) and *pa:ssa:* (1. c) in that the latter ones are not 'autonomous' units the way *kamra:* is. The expressions in (b) and (c) have to be supplemented 'conceptually' or 'linguistically' for their semantic completeness. For instance 2. a. and b.

2. a.   kamre   de   pa:sse   vicc
          room+OBL of+AGR side+OBL in
          'in the side of the room'

     b.   kamre   de   pa:sse   te
          room+OBL of+AGR side+OBL on
          'at/on the side of the room'

We see, further, that the *pa:ssa* in 2.a and pa:sse in 2.b refer to places which are within the boundaries of an entity (hence, 'parts') in the former case, and to places which are either boundaries or at the boundaries (hence, 'extremities') in the latter case. But the noun *kamra:* does not have any feature of that sort related with it. Though in the real world sense *kamra:* 'room' may be a part of larger entity like 'building' or say 'city' but still the speaker conceives it as an autonomous unit. This brings us to the problem of defining a 'whole'. Lyons (1977) defines it as an 'autonomous entity'. But the following example will pose a problem to fit into this definition.

3. a.   roshanda:n   di   guTTH vicc
          ventilator of+AGR corner in
          'in the corner of the ventilator'

    b.   kamre   de   roshanda:n di   guTTH vicc
        room+OBL of+AGR ventilator of+AGR corner in
        'in the corner of the ventilator of the room'

Of the two expressions of Punjabi 3. a and 3. b a Punjabi speaker finds it difficult to accept the naturalness of 3. b. And also for him there is no need to supplement 3. a - for semantic completeness. That is to say that though the *roshanda:n* physically is a part of the larger entity *kamra:* the Punjabi speaker perceives the *roshanda:n* as a 'whole'. This compels to state that the definition of 'whole' as an autonomous entity is inadequate and needs further refinement. We find that defining a 'whole' as 'having its own explicit boundaries' is more adequate. It will clearly rule out *pa:ssa* 'side' to be considered as a 'whole' and will include *roshanda:n* in its definition.

Another aspect of nouns of location discussed in Leech (1969) and Lyons (1977) is the relationship between 'whole' and 'part' and 'whole' and 'extremity' in terms of dimensional extension. Let us turn again to the examples in 1. *pa:ssa* in 1.b. is conceived as a three dimensional space; the use of the postposition *vicc* 'in' [7] shows this. So, it is of same dimensional extension as its 'whole' *kamra:* 'room'. So the relationship between 'whole' and 'part' is symmetrical. That is, a 'part' will have the same dimensional extension as its 'whole'. But in the case of 'whole' and extremity it is asymmetrical. That is, an extremity is one dimension less than its whole'. The use of the postposition *te* 'on' in 1.c shows this. If we delete the *te* the expression *pa:sse* will refer to a 'part' not an 'extremity'. This symmetricity of the whole-part relationship is the reason that *vicc* 'in' in 1.b. can be deleted without any deviation in the locational sense of the expression. But the deletion of *te* 'on' in 1.b. will result into the deviation of locational sense in terms of dimension. That is, then it will refer to a three dimensional 'part' not to a two dimensional 'extremity'.

. For the notions 3D, 2D etc. and their relation to adposition see Leech (1969), Lyons (1977), Daswani (1977), Singh (1987)

As to the dimensional relationship between 'whole', 'part' and 'extremity' Leech (1969) and Lyons (1977) provide the interpretation of the same nature as described above for the English data. But the following example will show that this generalization about the relationship is not adequate.

> 4. ca:dar   di   guTTH vicc   bu:Ta: kahD   de
>   sheet of+AGR corner in   plant embroider give
>   'Embroider a flower at/on the corner of the sheet'

The noun of location in 4., *ca:dar* is a 2D (two-dimensional) noun. The ungrammaticality of the sentence 5 proves this.

> 5.* cadar vicc buTa kahD de
>   sheet in plant embroider give

But still one of its 'parts', that is *guTTh* 'corner', can be conceived as a 3D enclosed area. The presence of the postposition *vicc* 'in' proves this. So, the conclusion drawn by Leech (1969) and Lyons (1977) about the symmetricity of dimensional relationship stands refuted here, atleast in the case of Punjabi. Though, I, at present, find myself unable to provide an adequate explanation of the whole-part relationship, yet the explanation given by the authors cited above does not account for the entire data.

Another aspect of the phenomena under study is the use of common terms for 'parts' and 'extremities'. Though Leech (1969) points out this commonness in the use of terms yet, an important fact escapes his observation. That is that there is a symmetricity between 'parts' and 'extremities' within a 'whole' in terms of their existence. In other words a 'whole' will have as many 'extremities' as its 'parts' and vice-versa. The following examples will illustrate this.

PART :

> 6. a.   kamre   de   pa:sse   vicc
>   room+OBL   of+AGR   side+OBL   in
>   'in the side of the room'

EXTREMITY :

    b.   kamre   de   pa:sse   te
        room+OBL of+AGR side+OBL on
        'at/on the side of the room'

PART :

    7. a.   kamre   di   guTTH vicc
           room+OBL of+AGR corner in
           'in the corner of the room'

EXTREMITY :

    b.   kamre   di   guTTH te
        room+OBL of+AGR corner on
        'at/on the corner of the room'

One more aspect of the 'wholes', 'parts' and 'extremities' phenomena which is of linguistic relevance but unnoticed so far, as for my knowledge of the literature goes, is in terms of the nature of their reference from another point of view. Each noun of location referring to a 'whole' refers to the objects of that class only whereas the nouns referring to 'parts' or 'extremities' are of general application. That is, a particular noun for a 'part' or 'extremity' is used for referring to 'parts' and 'extremities' of many objects which are members of different classes. For example *kahn)a* 'bank/edge' in the following examples.

    8. a.   daria   da   kahnDa
           river of + AGR edge
           'the bank of the river'

        b.   jangal   da   kahnDa
           forest of + AGR edge
           'the edge of the forest'

        c.   khu:h   da   kahnDa
           well of + AGR edge
           'the edge/bank of the well'

This phenomena of general applicability of these terms to the objects across different classes also establishes that there are some systematic principles underlying the spatial or locational divisions within a physical object which are reflected in the language,

I hope, at the end, that the evidence provided here sufficiently proves that the generalization provided by Leech (1969) and Lyons (1977) about differentiating 'wholes', 'parts', and 'extremities' and about the symmetricity of whole-part relationship in terms of dimensional extension do not hold true for the classification of norms of location in Punjabi. I also have mentioned some facts about the 'whole', 'part' 'extremity' phenomena which were unnoticed like the relationship between 'parts' and 'extremities' in terms of their existence and the relationship between nouns of location referring to a particular class of objects and others having reference across classes.

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CHILDREN'S COMPREHENSION OF TELUGU SENTENCES : RESULTS OF AN ACT-OUT TEST

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There are several studies of comprehension of English in child language. Comprehension studies are mostly experimental, and research in this area is increasing in English and few other languages. Yet similar studies are not available on Indian languages. This paper attempts to describe the Telugu children's linguistic performance by using an act-out test prepared by the investigator to study children's comprehension of a few syntactic structures.

Comprehension means understanding. We understand a message when we get the meaning. There are different views about what meaning is and each view of meaning leads to a different view of comprehension. A few such different theoretical approaches and the ways in which investigations are carried out are being described by Paivio and Begg (1981). Traditionally it has been assumed as an indisputable fact that language comprehension is developmentally ahead of language production.

There are several studies of comprehension of English in child language. While Gaer (1969), Sheldon (1974), Fluck (1978) Studied the comprehension of relative clauses, Donaldson (1970) Phinney (1981) de Boyson-Bardies (1979), and others studied negatives. Lust (1957), de villiers et al. (1978) and Ardery (1979) studied coordination. C. Chomsky's (1969) Study aimed at the children's comprehension of certain syntactic structures without any contextual or semantic cues that might aid child. She believed that in the absence of any such cues to help, the child has to make an interpretation of the sentence based on his linguistic knowledge alone. Bridges (1980) Engelkamp and Zimmer (1983) studied sentence comprehension in general. There are also researches based on Imitation, Comprehension and Production tasks (ICP tasks) (Fraser, Bellugi and Brown (1963), Slobin and Welsh (1968) and Clark (1976)). Comprehension studies are mostly experimental, and research in this area is increasing on English and a few other languages. Yet similar studies are not

available on Indian Languages. Most of these studies gave emphasis to the fundamental notion of generative grammar; to understand a sentence, one must know its structure. (Smith 1973).

This paper attempts to describe the Telugu children's linguistic performance by using an act-out test prepared by the investigator to study children's comprehension of a few syntactic structures. In the present study the children were tested for their comprehension of six additive sentences, three alternative sentences, five relative clauses and one reciprocal sentence; a total of fifteen sentences.

SUBJECTS

The children who participated in the test ranged in age from 3;6 to 5;6; classified into four age groups (with six months interval). (1) 3;6 - 4;0 (2) 4;0 - 4;6, (3) 4;6 - 5;0 (4) 5;0 - 5;6. Children between 3;0 to 3;6 who were tested in other tasks like imitation and production studies, could not be included here alongwith some more children belonging to the higher age groups mentioned above. Therefore, only those children who could respond to the instructions containing the sentence to 'perform' or 'act-out' with a few toys could be studied. Therefore, the number of children each group being four, the total number of children participated in the test were sixteen.

METHOD

The children were asked to perform or act-out the instruction (read to them by the investigator) and then were also asked to explain what they did just then.

MATERIALS

The material used in the test consisted of a number of toys; a few dolis (only female), animals (e.g. elephant, dog, camel, giraffee), fruits (mango, pineapple and banana), vegetables (gourd etc.) and some objects like candle sticks (of different sizes) and chairs.

As mentioned earlier, fifteen complex sentences consisting of coordinate, conjoining and embedded structures were considered. An attempt to elicit the comprehension of reflexives and negatives through the same method was found futile and improbable.

RESULTS

The following are the tables Containing the results of the tests grouped into three based on the nature of the sentences as (1) Additives (ii) Alternatives and (iii) Relative constructions. Though there are six sentences (instructions) with finite and non-finite (or participle) forms, the reciprocal form with the reflexive suffix-*kon* (suffixed to the verb) is also included in this set because of its nature of phrasal coordination as well. That is a reciprocal form of sentence may contain two or more nouns conjoined by pause to perform an action against each other. Thus the total number of instructions in this set are seven. The details of the Telugu instructions with their English Translations are given in appendix, an example may be illustrated here as follows :

1.   There are two girls and two chairs. One girl is standing and the other one is sitting on a chair. Put the first girl on her chair and pull out the other one from her chair.

The total number of children who scored 'correct' performed the act exactly in the same sequential order as being given to them in the instruction. Half-correct is marked for those children who did perform the instruction either partially such as chosing a wrong toy other than the one instructed but performed as being asked by them or did only a part of the sentence and not the whole of it. 'Wrong' is the score for the children's in correct performance.

TABLE 1. RESULTS OF ADDITIVES

		3;6 - 4;0	4;0 - 4;6	4;6 - 5;0	5;0 - 5;6
a)	Correct	11	13	14	13
b)	Wrong	12	11	7	7
c)	Half - correct	5	4	7	8
	Total	28	28	28	28

Total number of sentences are 7 and total number of children in each group are 4. Thus making the total as 28.

TABLE 2. ALTERNATIVES :

		3;6 - 4;0	4;0 - 4;6	4;6 - 5;0	5;0 - 5;6
a)	Correct	7	10	10	10
b)	Wrong	4	1	0	0
c)	Alternative to Additive	1	1	2	2
	Total	12	12	12	12

Number of sentences are 3 and the number of children in each group are 4. Total $3 \times 4 = 12$.

Alternative to additive is added in this table where six incidents in total indicate the children's performance of both the tasks in sentence whereas they are expected to do only either of the tasks. The correct score for alternatives is drawn when the children acted on only one of the two instructions as it involved a choice for them to select and do accordingly. The c-category gives us an evidence of children's interpretation of an alternative sentence as an additive. This may be considered to suggest that additives are easier for children to use and understand than alternatives.

There are five sentences containing phrasal relatives and the results are shown below.

TABLE 3. RESULTS OF RELATIVE CONSTRUCTIONS

		3;6 - 4;0	4;0 - 4;6	4;6 - 5;0	5;0 - 5;6
a)	Correct	8	12	12	17
b)	Wrong	12	8	8	3
	Total	20	20	20	20

No. of sentences 5 and the number of children 4. Total 20.

This table reveals that understanding of relative constructions is difficult for the lower age group children.

While there is a significant development from lower age group to higher age group, it also indicates that the development is not very much in progress between four to five years.

The following is the table reflecting the gross-score of the test of comprehension in general :

TABLE 4 RESULTS OF THE ACT - OUT TEST

		3;6 - 4;0	4;0 - 4;6	4;6 - 5;0	5;0 - 5;6
a)	Correct	26	35	36	40
b)	Wrong	28	20	15	10
c)	Half-correct	5	4	7	8
d)	Alternative to additive	1	1	2	2
	Total	60	60	60	60

Number of sentences used in the study are fifteen, Number of children are four in each group. Total $4 \times 15 = 60$.

The above table reveals a progressive increase of the 'correct' performances from lower to older age groups as well as a progressive decrease of the 'wrong' performances. This gives us a clear indication of the development of language comprehension with the growth of age in children. However, in a problem-solving experiment of this type, the children are given very little time to listen carefully (related to perception), remember (memory) and understand before they could perform. In fact there was no time gap between the two, that is the reading out the instruction and action. As a result it left with no time for the children to think carefully. In case, if the child did not act for a few seconds for a given instruction, the experimenter moved to another instruction and after it was performed, again returned to the earlier one and tried it once again. If it was found that the child was not able to do even in a second trial (and rarely for third time as well) it was thought to be decided that the instruction was not comprehended and the score was to be added to wrong. However, no child who participated in the test remained completely silent or indifferent to the instruction otherwise it could have been considered as 'No Response'.

There was only one 'reciprocal' instruction included in 'Additive' where the child was expected to simulate a fight between the toy tiger and toy elephant. The children understood it correctly, picked up both the toys in both their hands and acted as if both the animals were attacking each other. They also narrated the same when asked to explain what the animals were doing.

All this clearly reveals that children's ability to comprehend increases with age and experiments such as problem solving or act-out help us to understand and explore the children's language comprehension. It may also be considered to reveal their knowledge about their lanɟuaɟe.

DISCUSSION

Language comprehension h a s been approached from different perspectives. Some studies have emphasised 'sentence comprehension' considering rhe notion that sentence represents an autonomous level of analysis. But some others emphasise semantic (as opposed to syntactic) factors. It is also believed that comprehension does not consist of passive interpretation of linguistic input, but involves an active constructive process that makes use of the listener's (i. e. child's) general world knowledge and inference making precedence.

Most studies on language comprehension such as Chomsky (1969), Clark (1976), Clark et. al. (1974) and many others mentioned above have viewed language comprehension as a problem-solving process in which the listener attempted to infer the interpretation.

There have also been various assumptions and their respective experimental supports as well. The assumption that language comprehension precedes production is supported by the studies of Fraser et al. (1963), Nelson (1977) and others. While Fernald (1972), argued that Comprehension equals Production Chapman and Miller (1973) and Clark (1974 and 1976) found evidence in support of Production preceding

Comprehension. Most of these experiments are based on the assumptions assessed in terms of isolated linguistic elements without any situational or contextual variables, Bloom (1974) expresses that the relationship between comprehension and production shifts and varies with age, situation and experience.

All these studies, though differ in their experiments and assumptions, share the common hypothesis that comprehension and production can be studied independently. Lebrum (1982) points out that neurolinguistics also provides evidence for the relative independency of comprehension and production. "At the cerebral level speech production and speech comprehension are differently located and relatively independent of one another" (p. 168).

This study, though preliminary, gives us enough evidence to suggest the following: I. The children's understanding of a sentence does not entirely depend on its meaning but is elso dependent on its structure. (These two are infact though inseparable from each other, some researchers have separated them depending on their focus of attention.) II. It shows that the additive sentences are easier to understand than alternative sentences. (III) It indicates that the understanding of relative constructions in the lower age group children is relatively poor in comparison with the coordinate sentences (Table 1 and 3). It may be due to the fact that while coordinate structures can easily be broken into two (both structurally and semantically), an embedding structure is difficult for such a break. It may therefore be suggested that structural complexity or simplicity contributes to the study of comprehension. IV. (It also shows that such studies yield fruitful results and not only enrich our understanding of children's comprehension but may also add to our present understanding of the theoretical notion of native speaker's khowledge or 'competence' based on children's interpretation of the language used in the test. One may, however, also venture to say that comprehension tasks are difficult for children than Imitation tasks because as a listener the child might be a victim of adult abstractness, vocabulary and syntax (Hagtvet 1982, P. 164).

APPENDIX

ACT - OUT TEST - COMPREHENSION

Instructions

The Instructions are given to the children in Telugu; the English translation of which roughly follows as .

'Please listen to the sentence which I read out to you and do as described in it onto the toys; tell me later what have you done'.

The following are the sentences used in the Test, in the order given below :

1. bE:glo: unna palaka,   balapam,   pensil, pustaka:lu
    bag in   is   slate, slate-pencil, pencil,   books
    tifin ba:ks anni: ti:si   bayaTa   peTTu
    tiffin box, all remove out side keep/put

    'Take out all the things; slate, slate-pencil, pencil, books, tiffin box, from the bag'.

2. oka pa:pa kurci:mi:da   ku:rcunTo:ndi,   inko   pa:pa
    one girl   chair-on   sit-progressive-be another   girl
    kurci: mi:da nunDi   diguto:di
    chair   on   from   get-down-is

    'One girl is sitting on the chair and another girl is getting down'. (Help them)

3. a: pa:paki jaDeyya:li, i: pa:pane:mo: nidrapucca:li
    that girl-to plait-put this girl-and   sleep-put

    'Comb and form a plait to that girl, and put this girl to sleep'.

    (The Telugu sentence is obligative; the English translation is Imperative. Since the instruction is already given to act-out, it is translated as Imperative).

4.   amma:yiki   moham   kaDigi jaDe:si, gawn toDigi
     girl-to   face (teeth) wash plait-put gown-put on
     baDiki   ti:sukeLLu
     school-to take-away

    'Take the girl to school after brushing her teeth, combing
    (making a plait) and dressing her up'.

5.   e:nukki   ma:miDipanDu, kunde:luki bi:raka:ya
    elephant-to   mango-fruit   rabbit-to green gourd
      idda:m
    give-let us.

    'Let us give a mango to elephant and green gourd to
    rabbit'.   Combination of sentences after identical vp-
    deletion.

6.   piTTabomma ka:ni kukka ka:ni Ti:carki iwwa:li
    sparrow-toy either dog either teacher-to give

    'Give either a sparrow toy or a dog toy to the teacher'.
    Alternative Sentence

7.   onTe mi:da ka:ni e:nugu mi:da ka:ni pa:pani
    camel on   either elephant on   either girl-acc.
    ku:rco: beTTu
      sit   make

    'Seat the girl either on a camel or on an elephant'.
    Alternative sentence.

8.   talami:da buTTa paTTukunna amma:yiki Seik hEEnd
    head on basket carrying   girl-to   shake hand
    icci hallo ceppu
    give hallo say

    'Shake hand and say hallo to the girl who is carrying
    basket on her head'.

9.   paDaka kurci:lo: ku:rcunna amma:yini onTe mi:da
    arm-chair/easy chair in sitting   girl-acc. camel   on
    ekkincu
    put-sing Imp.

    'Seat the girl who is sitting in an easy-chair on the camel'.

10. kurci: mi:da ku:rcunna amma:yini kindiki dincu
    chair on   sitting girl-acc. down put
    'Get the girl down who is sitting on the chair'.

11. pedda kE:nDilsunu oka pakka, cinna va:Tini maro:
      big   candles-acc. one side small ones another
    pakka   peTTu
    side put/arrange
    'Arrange the big candles on one side and the small ones
    on the other'.

12. peddapuli:, e:nugu koTLa:DukunTunna:yi
    tiger and elephant fighting with each other (reciprocal)

    'The tiger and elephant are fighting with each other'.
    (Make them fight with each other).

13. ma:miDi panDu ka:ni;, ana;sa panDu ka:ni; Ti:carki
      mango fruit either pineapple fruit or teacher-to
    iwwu
    give
    'Give either a mango or a pineapple to the teacher'.
    Alternative sentence.

14. parsu paTTukunna amma:yiki cilakani iwwu
    purse holding girl-to parrot-acc. give.
    'Give the parrot to the girl who is holding a purse'.

15. nallaga; unDe; kukkapilla, da;nni po;ni; Tail
    black like is   pup it.acc. pony tail
    amma;yiki iwwu
     girl-to give
    'Give the pup which is black to the girl who has pony tail'.

1. Alternatives ; Three sentences ; Nos. 6, 7 & 13.
2. Reciprocal ; One sentence   No. 12.
3. Relative constructions ;
   (a) Phrasal relatives ; Four sentences; Nos. 8, 9, 10 & 14.
   (b) Peri-clausal   ; One sentence ; No. 15.
4. Additive constructions ; Six sentences ; Nos. 1, 2, 3, 4,
      5 & 11.

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CONSTRAINTS ON L, N - SUBSTITUTION IN DOABI[1]

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The speech of the community residing between the rivers of Sutlej and Beas, with three main cities Jalandhar, Kapurthala and Hoshiarpur is referred as Doabi dialect. The author in this paper discusses about the social constraints on L, N. Substitution and subsequently its influence upon vowel heightening.

The Doabi dialect here refers to the speech of the community residing between the rivers of Sutlej and Beas, with three main cities Jalandhar, Kapurthala and Hoshiarpur. Traditionally, it is known as Jalandhar Doab. The peculiar linguistic feature that distinguishes it from rest of the Panjabi dialects is the alternative use of /b/ and /v/. The paper in hand primarily concentrates on the social constraints on L, N-substitution and subsequently its influence upon vowel heightening. ɔ —> 0/-l, n/.

METHODOLOGY :

The sample consists of twenty seven subjects which were selected from three adjoining localities using the systematic sampling techniques. These localities are : Rampur, a rural hamlet of Kapurthala district; Kala Sanghian, a semi-urbanized town of Kapurthala district; and New Jawahar Nagar, a model town colony of Jalandhar city. These subjects were further classified based on sex and age.

A questionnaire was prepared to elicit social as well as linguistic information. Though much reliance was placed on free and casual setting data presented here are entirely based on recorded responses, besides personal observations. The style A of this study is a conversational style and remaining two styles of Reading, Passage and word-list are treated here as style B and style C respectively.

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1. L, N-substitution denotes the process wherein retroflex lateral and nasal L, N/ are being substituted by their alveolar counterparts i.e., /l,n/.

The L, N-substitution has been observed by linguists from two different perspectives i.e., Areal and Social. Grierson (1916). Jain (1934), Arun (1961), Gill and Gleason (1963) are some of the scholars who have given the areal distribution of L, N-substitution.

Grierson (1916 : 609) has postulated that the Cerebral L is never sounded in Amritsar (Majhi dialect). The ordinary dental l is always substituted for it. But Gill and Gleason (1963 : 10) have contradicted this observation saying that the standard Majhi Panjabi has a retroflex lateral /L/ in strong contrast with dental /l/. In some other dialects, however, this contrast does not exist. Jain (1934) and Arun (1961) have also shared the latter view.

Linguists who have looked at the social distribution of L, N-substitution are of the view that urban speech patterns are more prone to L, N-substitution than the rural one (Joshi, 1971; Singh et al, 1973; and Sandhu, 1981).

According to Sandhu (1981 : 7) the business community living in cities, generally replaces the L and N with l and n whereas the business community settled in rural areas retain the L and N. Joshi (1971) too has the same opinion.. According to him the tendency to use l, n varieties of the segments is much more amongst the urban women because they think that the use of L and N is a sign of non-literacy or perhaps unpolished speech.

In the following sections L, N substitution among rural, semi urban and urban groups belonging to different sub groups in terms of age and sex is discussed and shown through tables.

	STYLE					
	A		B		C	
Age - group	(N)	(L)	(N)	(L)	(N)	(L)
U – I	97.73 %	100 %	100 %	100 %	100 %	100 %
SU – I	46.80 %	87.50 %	41.52 %	41.37 %	42.85 %	50 %
R – II	00.00 %	00.00 %	3.03 %	3.07 %	2.81 %	9.52 %
U – II	34.37 %	42.30 %	30.64 %	64.06 %	25.35 %	69.76 %
SU – II	9.30 %	31.25 %	60.25 %	62.50 %	15.55 %	57.69 %
R – II	00.00 %	00.00 %	1.05 %	16.27 %	2.12 %	64.28 %
U – III	00.00 %	00.00 %	8.52 %	34.28 %	11.26 %	48.78 %
SU – III	00.00 %	00 00 %	—	—	—	—
R – III	00.00 %	00.00 %	—	—	—	—

Table I L, N-substitution indices by style, Age-group, Inhabitancy.

U	=	Urban	I	=	age group 15 — 30
SU	=	Semi - urban	II	=	age group 31 — 55
R	=	Rural	III	=	age group 56 +

	STYLE					
	A		**B**		**C**	
SEX - GROUP	(N)	(L)	(N)	(L)	(N)	(L)
UF	69.64 %	50 %	59.53 %	84.09 %	53.12 %	89.28 %
SUF	37.70 %	71.92 %	66.95 %	78.83 %	52.25 %	79.54 %
RF	00.00 %	00.00 %	—	—	—	—
UM	29.11 %	45.28 %	36.49 %	50.89 %	39.83 %	60 %
SUM	3 %	4.34 %	23.45 %	14.63 %	4.16 %	7.69 %
RM	00.00 %	00.00 %	—	—	—	—

Table II   L, N-substitution indices by style, Sex-group, Inhabitancy.

UF	=	Urban females
UM	=	Urban males
SUF	=	Semi - urban females
SUM	=	Semi - urban males
RM	=	Rural males
RF	=	Rural females

SOCIAL CONSTRAINTS ON L, N-SUBSTITUTION :

Following Chambers and Trudgill (1980), the constraints can be classified into STRONG and WEAK constraints. The strong constraints allow the application of a particular linguistic variable at a higher frequency whereas the weak at a lower. In this paper, the only social constraints viz. age, sex, and inhabitancy will be analysed as there is no potential linguistic environment which could be proved as a significant context for the application of this variable.

If we look at the Tables I and II, we can arrive at the conclusion that all levels, variability emerges on three distinct patterns of speech with respect to L, N-substitution. These are, rural, semi - urban, and urban. The urban, semi - urban, and rural groups belonging to different sub-groups, in terms of age and sex present a marked contrast in relation to L, N-substitution. The urban age groups I, II show a qualitative difference when compared to their respective rural counterparts. That is, we find that the urban age group I shows 100% use of the l, n varieties. Whereas rural age group I does not permit any substitution and uses L, N segments. The position of the semi-urban age group I lies somewhere in the middle but moving from ths rural relative to the urban one. This further confirms our generalization and L, N-substitution. The rural group being completely non-urbanized does not show any instance of L, N-substitution, particularly in the case of style A. The semi-urban group is at the middle of the scale. The urban group I has completely shifted towards the l, n varieties of the segments under consideration. Similar correlations can be established in the 'rural' and 'urban' areas in terms of sex also.

Coming to the question of the origin of L, N-substitution in terms of age age, it seems that the process of L, N-substitution might have started with the second generation (see table III).

Table III L, N-substitution in different age-gruops

(Style - A)

	III	II	I
U	●	● ʂ 0	0
SU	●	● ʂ (0)	● ʂ 0
R	●	●	●

● = Use of L, N varieties

0 = Use of l, n varieties

 i) the urban age group III i.e., the old generation shows no presence of L, N-substitution in their casual speech (Style A) regardless of the rural-urban parameters ;

 ii) the urban age groups I, i. e. younger generation shows no fluctuation in their speech, that is, they always substitute L, N with l, n. That proves that the respective change is completed in their case. And it is an established fact that any linguistic change can not reach its completion within one generation;

 iii) this leads us to conclude that it is the age group II which has perhaps initiated this change because the speaker belonging to this generation show some fluctuation in their use of the two varieties i.e., retroflexed and non-retroflexed one.

As we have said earlier that the L, N-substitution is a feature of urban speech pattern, we can relate it to above conclusion and say that L, N-substitution has emerged with the second generation of urban speakers of the language, here in Doabi dialect. This is substituted by the following factors.

 i) the urban areas are strong centres for linguistic interference and we know that the process of L. N-substitution may be a consequence of the influence of Hindi (cf. Arun, 1961); and

ii) the direct influence of Hindi on Panjabi being markedly increased after independence with Hindi gaining more prestige and opportunities due to obvious reasons.

L, N-SUBSTITUTION AND VOWEL HEIGHTENING :

Two phonological processes are taking place simulta-neously. These are, L, N-substitution and vowel heightening The applicability of Rule II (vowel heightening) is proportiona-tely determined by the application of Rule I (L, N-substitution).

Rule I   L, N—> l, n
Rule II ɔ—> 0/-n,-l/

A glance at Rule I and Rule II leads us to conclude that Rule I is a gross-feeder of Rule II, i. e. the output of Rule I becomes the input of Rule II. It can be hypothesized that if Rule I applies in Panjabi Phonology, here Doabi, then the application of Rule II becomes inevitable (especially where the low back vowel is followed by a nasal) as the output of Rule I is not acceptable to Panjabi Phonology.

For example :

SɔɔNi   'autumn harvest'   sɔɔni*
PɔɔN   'breeze'   pɔɔn*
tɔ'ɔLa   'grey hair'   tɔ'ɔla

In the process of lexical formation in Panjabi, the number of occurances of ɔ followed by l, n is almost negligible. There is not a single entry of ɔ followed by/n/in panjabi English dictionary (see Table IV) whereas in the case of /l/ the number is sixteen. So in the context where the low back vowel is followed by a alveolar lateral, comparatively, the degree of vowel heightening is low.

TABLE IV

0 + l	0 + L	0 + n	0 + N
62	24	9	182
ɔ + l	ɔ + L	ɔ + n	ɔ + N
16	43	0	803

(based on the Panjabi-English dictionary (1985) edited by Gurcharan Singh et al).

CONCLUSIONS :

From the above discussion, it can be hypothesized that

i) the L, N-substitution has started with the second generation of urban speakers;

ii) urban age group I seems to be the strongest vehicle of L, N-substitution;

iii) L, N-substitutions is a consequence of the influence of Hindi (cf. Arun, 1961); and

iv) L, N-substitution and vowel heightening are two simultaneous phonological processes where the latter is fed by the former.

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OPIL 12 (1986)

NEWS OF THE DEPARTMENT

Award of Research Degrees

Ph. D :

1. Rama Rao, K.   Syntax of Koya language (Supervisor : Dr. C. Rama rao

2. Usha Devi, A.   Acquisition of certain Syntactic patterns by Telugu children : an experimental study   (Supervisor : Dr. C. Ramarao)

3. Usha Rani, A.   A Study of Language disturbance in aphasics with reference to Telugu (Supervisor : Dr. Bh. Krishnamurti)

M. Phil :

Ashirvadam, K.   Reflexivization in Telugu (Supervisor : Dr. B. Ramakrishna Reddy).

Rajendran, S.   Linguistic convergence between Tamil and Malayalam (Supervisor : Dr. A.K. Sharma)

Ramesh Kumar, K.   Grammatical variation in Telugu Dialects (Supervisor : Dr. B. Ramakrishna Reddy)

Vijayanarayana, B.   The expression of time in Telugu and English with a special reference to the problem of translation (Supervisor : Dr. C. Ramarao)

Visiting Scholars and Lectures :

(1) Professor Jody Higgs of the University of Edinburgh gave a series of lectures on Phonetics during January 1986.

(2) Dr. Tilottama Daswani a specialist in Psycholinguistics delivered a series of lectures during February and March 1986.

(3)   Professor P.S. Subramanyam of Annamalai University was invited as Visiting Professor of Comparative Dravidian in the department in the absence of Prof. Krishnamurti, who was away in the United States on leave.

(4)   Professor K. S. Yadurajan of Central Institute of English and Foreign Languages, a specialist in generative grammar was a visiting fellow in the month of February 1986. He gave a special series of lectures on the theory of Government and Binding.

National Seminar :

The Department organised a National Seminar during January 17-18, 1986 on "Syllables in Phonetics and Phonology". The seminar was attended by reputed scholars in the field from all over India and was inaugurated by Prof. Jody Higgs of the University of Edinburgh, U. K.

DISSERTATION ABSTRACTS

USHA DEVI, A. *Acquisition of certain syntactic patterns by Telugu Children; An Experimental Study (Ph. D. dissertation, 1986)*

The study is based on the research techniques namely, elicitation of imitation, comprehension and production to study how Telugu children between the ages of three to five and a half years divided into five age groups could use and understand a few syntactic patterns. The sentence patterns studied were Negatives, Reflexives, Relative Constructions and a few Multi-propositional sentences for Imitation, reflexives and relative clauses for Comprehension, and negatives, reflexives and multipropositional sentences for elicited production.

The results of the Imitation study are analysed and presented in tabular form for different performances for individual pattern. ii) Based on the results, a relative hierarchy of markednese is pointed for negatives. The findings are similar

to those of Nirmala (1981) and Laxmi Bai (1984) and support De Villiers observations as opposed to Bloom's. (ii) Several Semantic functions and uses of the Telugu reflexive forms are identified and discussed under eight types. While the results indicate that children could imitate the pattern of reflexives better than other Syntactic structures, they also reveal the relative difficulty of the classified types in their responses. (iii) Among the relative constructions, phrasal relatives are found to be easier followed by clausal and peri-clausal relative construction, where as psuedo-clausal were difficult to imitate and are marked with in child as well as adult language. (iv) of the seven types of multipropositional structures, the study gives evidence for backward deletion and phrasal coordination to be easier for Telugu children than forward deletion and sentential coordination. It also showed the relative difficulty of alterna- tive constructions in imitation as opposed to additive constructions. It is suggested that such studies are of immense help to understand Children's processing strategies and the degrees of the uses of different patterns, with relative ease or difficulty.

In the second Test, Comprehension, based on act-out performance, it is observed that reciprocal sentences are easier to comprehend; and additives are better understood than alternatives. Between the coordinate and relative construc- tions, coordinates were performed better than relative construc- tions. All these results confirm the finding of the Imitation test.

In the elicited Production, the third test, the production of reflexives and negatives are found to be easier than multi- propositional sentences. However, in the elicitation of negatives younger children preferred to reply in indirect positive forms rathar than the expected direct negative ones. There is a clear reduction of this tendency from younger to older children. This test revealed the children's use of the local variety in their own production when compared to the standard variety sentences provided to them in Imitation test, where only a very few sentences were modified into their own variety.

The comparison of all the finding of the three tests show a clear similarity with many findings of De Villiers (1976, 77, and 78) and his collegues and of Slobin and Welsh (1973) for negatives, coordinates and relative constructions. The findings are also compared with some of the universals proposed by Slobin (1973) and are found to support them.

A. USHA RANI *A Study of Language Disturbance in Aphasics with Reference to Telugu* (Ph. D. dissertation 1986)

The three subjects selected for the study were from Gandhi Hospital. All the subjects were native speakers of Telugu. The aphasics represented in this study were drawn from a particuler diagnostic group, i.e. motor aphasics. Motor aphasia is also known as 'Broca's' aphasia of 'Expressive aphasia'. The peculiarity of this kind of aphasia is that it affects the productive (expressive) skills of an individual most, i.e. the maximum amount of disturbance is caused in his ability to express ideas in speech or in writing. (Wesenberg and Mc Bride 1935). The subjects were found to have had brain damage resulting from a cerebro - vascular - accident (C. V. P.) resulting in right side hemiplegia, i. e. their right upper and lower limbs were paralysed. In all the subjects the C. V. A. resulted from thrombasis.

A test was designed to elicit essential components of phonology, morphology and syntax of the Telugu language. Word lists and sentence lists were made to elicit all the phonemes and different inflectional categories. All types of sentences simple, interrogative, negative, compound and complex sentences were represented in the sentence list of the syntax section. All the words chosen in the list for phonology section were picturable. A Cassette player was used for recording the responses of the subjects. Repetition had to be used as a mode of elicitation as the subjects lacked spontaneous speech. The first recording of each subject was made approxi-

mately 4 weeks after the stroke. The subsequent two recordings were made at intervals of one month each. Each subject was observed for a period of two months. The subjects were made to repeat the word-list after the investigator with the help of objects and pictures. The responses were recorded The same word and sentence lists were used for all the recordings to study the recovery in the subject.

Retroflex stops and affricates were resistant to improvement in comparison with bilabials and alveolars with maximum errors in retroflex consonants. The time adverbials were deleted by the subjects One of the subjects answered all the interrogative sentences instead of repeating them. All the subjects made errors in repeating compound and complex sentences. Two of the subjects could correct most of the ungrammatical constructions given for case and number distinctions, which were given for repetition. They did not correct the constructions with ungrammatical tense and gender markers. One of the subjects did not correct even a single utterance. Since the study is confined only to three subjects and the technique of elicitation was restricted to repetition tasks, only tentative statements can be made.

K. ASHIRVADAM *Reflexivization in* **Telugu**
(M. Phil. dissertation 1986)

Though the study of Telugu syntax has a long history starting from the work of Campbell (1816), serious studies on Telugu syntax within the framework of modern syntactic theory are very recent and a few in number. One of the areas which deserves to be explored and described is the process of reflexivization and its related syntactic phenomenon in Telugu. With this aim in mind, the present work makes a modest attempt within the framework of Chomskyan Standard Theory of transformational generative grammar to describe the reflexivization and its related processes in Telugu with a relevant comparison of English and other languages.

As a background to the present work, the treatment of reflexivization both in Telugu and English is surveyed wherein an attempt is made to characterise the process of pronominalisation in Telugu and its relevant comparison with English. Here the processes like reflexivization, reciprocation, and relativization of English come under pronominalization, but not of Telugu, as these transformations are reflected in rhe verbphrase. Telugu reflexivization is expressed through the verbal structure. Reflexivization is a process where the action of the verb is directed directly on the subject of the sentence. This transformation applies only when both the NPs (subject and object) in the sentence are identical. In English the pronominal inflection i. e., *self* added to the object (noun) converts the transitive into reflexive such as *myself 'yourself' himself, themselves* etc. But Telugu denotes the reflexive meaning in its verb inflection, i.e., by adding *-Kon* auxiliary verb to the main verb, such as *VanDukon* 'cook for oneself' *ra:sukon* 'write for oneself' etc. Here the tanization rule applies optionally and the second or even the first NP of the sentence can be converted into the pronoun *ta:nu*. Then the pronominal deletion rule deletes the pronoun without affecting the meaning of the sentence. For example ([i] Va:Ni tanako:sam vanDukonnadi; [ii] Va:Ni vanDukonnadi) both sentences give the same meaning as 'Va:Ni cooked for herself',

The uses of the *kon* auxiliary verb in different processes like reciprocal, reflexive, as secondary verb and as detransitivizer etc. are explained with suitable examples. The so called reflexive pronoun *ta:nu* and its various uses are discussed. This pronoun is treated as special anaphoric pronoun (SAP), because these pronouns *ta:nu* (sg) *ta:mu* (pl) are used as anaphoric pronouns to disambiguate the meaning of the sentences by using them immediately after the antecedent noun. This pronoun *ta:nu* of Telugu is triggered as a result of tanization transformation, but not by reflexivization.

RAJENDRAN S. *A Study of Linguistic interference and convergence of Malayalam on Tamil in Kanya Kumari District*
(M. Phil, Dissertation, 1986)

This study aims at describing the process of interference and convergence resulting in the affinities between grammatical system of the two genetically related languages namely Tamil and Malayalam because of long time contact. Socio cultural factors which accelerate the processes in a particular direction were also studied. For this purpose the language of a caste group called Krishnavahai which migrated to the erstwhile Travancore from northern Tamilnadu and developed close cultural affiliations with some caste groups of Kerala is studied and compared with the language of non-Krishna Vahai caste groups. The firstchapter introduces the two processes and their similarities and differences in terms of stability, quality of the resultant product etc., and analyses the linguistic and extralinguistic factors that decide the direction of interference, and the quality and quantity of the products. The methodology adopted for the study is discussed in the second chapter.

In the third chapter the phonemic inventories of Tamil and Malayalam are juxtaposed and the phonological interference and convergence of various phonological rules which were assimilated in Kanyakumari Tamil dialect are described. The degree of convergence for a few phonological rules were recorded. The fourth chapter deals with grammatical interference and convergence.

In the fifth chapter, the different forms of lexical interferences and convergence are discussed. In order to assesss the degree of interferences, as many as nine lexical fields were identified, and in each field at least 25 to 40 common vocabulary items were listed and the potential items were examined for interference. The final chapter integrates the findings of the previous chapters and explain the linguistic change. An appendix comprising the questionnaire used for the study and the lexical forms are incorporated.

RAMESH KUMAR, K. *Grammatical Variation in Telugu Dialects.* *(M. Phil, dissertation. 1986)*

The aim of the present dissertation is to describe the grammatical variation in the three regional dialects of Telugu, namely, Standard Dialect (Std. D), Telangana Dialect (T.D.), and Rayalaseema Dialect (R.D.) concentrating on the speech of a cross-section of the speakers and also drawing from the published works on Telugu Dialects.

For the convenience of analysis the dissertation is divided into 6 chapters. The first chapter contains a brief survey of earlier dialect grammars along with the methodology adopted.

The second chapter deals with the differences and similarities in plural formation, case suffixes, post positions and other relevant features in the three dialects. It is observed that some of the case suffixes *ko:le*, *kelli* and *sandi* are peculiar to T.D. and some of the archaic postpositions are retained in this dialect.

The third chapter is concerned with the analysis of verbs and the tense-mood distinctions. For this purpose 26 verbs covering the six classes as postulated by Krishnamurti (1961) in *Telugu Verbal Bases* are taken. The tense distinction in Telugu is Past-Versus non-past in all the three dialects with all the verbs except *unDu*.

The fourth chapter concentrates the verb *undu* 'to be' and it strats with a short summary of the earlier treatments of *unDu.* The tense and aspect distinctions are very interesting with this verb, in that the tense distinction is grammaticalised in a two-way contrast in Std. D. whereas it is a three way constrast in R.D. and T.D.

In the fifth chapter aspectual distinctions of the auxiliary verb *unDu* are discussed and the interaction of tense and aspect as they are manifested through *unDu* in the three dialects is

probed into. On the basis of the tense distinction, *unDu* shows a three-way contrast in T.D. and R.D. namely past, present, and future perfective clearly as against the future versus non-future progressive and the future versus the non - future perfective In the Std. D.

In chapter six, the structural properties of verbal negatives are compared from all the three dialects. In Std. D. and R.D. the past negative and progressive negative constructions do not have any subject agreement, whereas T.D. has tho subject agreement in these two constructions also.

Thus, the present dissertation is a modest attempt to bringforth some of the interesting grammatical features of Telugu dialects which were not discussed in the earlier works. The present work is, in a way, first of its kind in/assembling the relevant data on some of the unique grammatical features of the Telugu dialects and to compare the three dialectal features within a modern structuralist framework, and to show the contrasting as well as common features among the dialects.

B. VIJAYANARAYANA *The Expression of time in Telugu and English with a Special Reference to the Problem of Translation.* *(M. Phil. Dissertation, 1986)*

In any language, a verb describes an action or state of being. Mere description of an action or state is not going to serve human communicative purpose. It is also necessary to describe when an action takes place or when a state of being is in force (whether in the past, the present, or the future). In addition, the quality or nature (duration, inception, completion, iterativeness, etc.) of an action or state must be expressed. These time-aspect contrasts are realized differently in different languages. For the purpose of this study, these time-aspect denoting forms are labelled as Time Signaling Linguistic Forms (TSLFs).

The present work aims at comparing Telugu and English TSLFs (1) to focus the treatment of time in Telugu and English, and (2) to show how the time is treated in translation from English to Telugu vice versa.

Chapter one is introductory in nature and gives an overview of the treatment of time in some languages chosen at random. Chapter two describes the Telugu verb structure, Chapter three deals with the combined role of tense and time adverbials in locating time. Chapter four discusses in detail the conceptual framework of time and shows how Telugu TSLFs are used to capture the time dimension. Chapter five, on the one hand, deals with the English TSLFs and, on the other, establishes translation correspondences between English and Telugu TSLFs in terms of meaning. Chapter six is conclusive and presents a chart which summarises the correspondences and helps the prospective translator to locate a matching TSLF from the target language for the source language TSLF, along with the following observations :

It has been observed that the twofold distinction of tense in Telugu (i.e. past and future) and English (i.e. past and present) does not correspond with the threefold conceptual distinction between past, present and future. For an unambiguous expression of time (of an event or state of being), both English and Telugu need to take the help of time adverbials ajong with a compatible TSLF. It has also been observed that the time adverbial, when not found overtly in a sentence, should be approached intersententially (or contextually). In locating the time of an event or state of being, Reichenbach's three time point system has been adopted for Telugu and found it to be useful. When two actions by the same subject occur simultaneously, Telugu expresses one of them by a present progressive verbal particible and time of such an event is signaled by the finite verh form. In this case, English translation, optionally, can have a present participle or it may dispense with it by using a finite verb form. When one action is immediately followed by another by the same subject the first action can be expressed in English by a present participle.

Further it is confirmed as has been noticed by earlier writers on translation that the transfer of meaning is hindered a great extent by the gaps found in the lexical meaning (i.e., the lexical range of an expression in a source language may not necessarily have an expression with the same lexical range in a target language).

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