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Semantic Relations in 3.1-5 Years Old Typically Developing Konkani Speaking Children

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Abstract

Semantic relations are the common word combinations which represent a small group of meanings expressed in children's language. These semantic relations are telegraphic in nature. It is the indication of language development in typically developing children. The complexity of the language expression increases with increase in exposure to the language, and combination of three to four words to form sentences are noticed. Semantic development is continuous in coordination with the syntax development.

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The present study was determined to account the semantic relations in 3.1- 5 years typically normal developing 18 Konkani speaking children. Two age groups were made to study the semantic relations in and across the two groups. The speech sample was obtained from conversation and monologue tasks. Results indicate that children until age 5, continue to use semantic relations, although the syntactic knowledge has emerged and is inadequately used in different situations such as (picture description and topic description). In conversation task, all the targeted semantic relations were present, attributing to environmental stimulation. The obtained data is useful for identifying, diagnosing and assessing the Konkani speaking children in west coastal region of India.

Key words: Semantic relations, Konkani Language.

Introduction

Language is a complex and dynamic system of conventional symbols that is used in various modes for thought and communication. Contemporary views of human language hold that: language evolves within specific historical, social, and cultural contexts; language, as rule-governed behavior, is described by at least five parameters — phonologic, morphologic, syntactic, semantic, and pragmatic; language learning and use are determined by the interaction of biological, cognitive, psychosocial, and environmental factors; effective use of language for communication requires a broad understanding of human interaction including such associated factors as nonverbal cues, motivation, and sociocultural roles. (American Speech and Hearing Association, 1982).

Semantic is the study of meaning and its development includes the acquisition of words, their meaning and the development of knowledge into a complex hierarchical semantic network of associated meanings. Development of semantic knowledge in children consists of building up the lexicons until their words match that of an adult. Children start using a word in a restricted setting, eventually use it in a larger semantic network and ultimately learn to detach it from the situation in which they gained the knowledge. Semantic development studies the relationship between language and an individual's perceptions of the world, including the things and actions within it (Robert, 2008).

Single Word Level

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Several researchers have noted that at the first word level, words are conceptualized as semantic intentions. When children combine these semantic intentions at phrase level, they are referred to as Semantic Relations. These semantic relations are not grammatical patterns. The relationship between objects, person and events are expressed through language. One approach to the early utterances of children was proposed by Brown (1973), tried to account semantic relations expressed by children. Semantic relation is in two word level and three word level. In two word level, Agent + Action, agent +object, possessor+ possession, descriptive, locative, temporal, quantitative, conjunctive, existence, recurrence, non- existence, rejection, and denial is noted. In three word level, agent+ action+ object, agent+ action+ location, action+ object+ location, phrases with preposition, modifying phrases, carrier phrases is explained.

Semantic Relations in Two Word Level in Konkani Language

Agent+ Action: /ᳵᳵᳵᳵ ᳵᳵᳵ/

Action+ object: /ᳵᳵᳵᳵ ᳵᳵᳵᳵ/

Agent+ Object: /ᳵᳵᳵᳵ ᳵᳵᳵᳵ/

Possessive: /ᳵᳵᳵᳵ ᳵᳵᳵᳵ/

Descriptive: /ᳵᳵᳵᳵ ᳵᳵᳵᳵ/

Locative: /ᳵᳵᳵᳵ ᳵᳵᳵᳵ/

Temporal: /ᳵᳵᳵᳵ ᳵᳵᳵᳵ/

Quantitative: /ᳵᳵᳵᳵ ᳵᳵᳵᳵ/

Conjunctive: /ᳵᳵᳵᳵ ᳵᳵᳵᳵ/

Existence: /ᳵᳵᳵᳵ ᳵᳵᳵᳵ/

Recurrence: /ᳵᳵᳵᳵ ᳵᳵᳵᳵ/

Non- existence: /ᳵᳵᳵᳵ ᳵᳵᳵᳵ/

Rejection: /ᳵᳵᳵᳵ ᳵᳵᳵᳵ/

Denial: /ᳵᳵᳵᳵ ᳵᳵᳵᳵ/

Semantic Relations in Three Word Level in Konkani

Agent+ Action+ object: /mɑ:ji kaʊŋk ðiə/

Agent+ Action+ Location: /b'av gɛ[ɔ iskʌl/

Action+ object+ location: /ʃɔ:k[ɜt kʌθɑ g'ʌrɑ/

Phrases with preposition: /pʌθɔr ʊðkɑ:nə/

Language Performance in Normally Developing Children

Speech Language Pathologists/ Therapists are engaged in the tasks of assessment and treatment of language disorders in children. Understanding the performance of children with language disorders demands a reasonable degree of knowledge of language performance in normally developing children. There are several attempts made to understand performance of normally developing children speaking different Indian languages, aspects of semantics is one such important area.

Patricia and Robert (1976) studied Semantic Relations used by Normal and Language-Impaired Children at Brown's Stage I level of linguistic development to determine any difference between the two groups in the use of a set of 10 basic semantic relations. The results showed significant difference between the two groups demonstrating greater diversity in the use of introducer+ entity relation in language impaired group than the normal group. Otherwise, at the Stage I level of linguistic development, the language-impaired children demonstrated a linguistic system no different than the system of normal Stage I children. It also suggested that some language-impaired children rather than being deficient in their ability to understand and code the basic semantic relations demonstrate a deficit in the higher, more complex aspects of the linguistic coding system.

Fokes and Konefal (1981) indicated a developmental trend in the use of case relations and showed manipulation tasks enhanced the use of case relations by the language disordered group, whereas the observation task was more effective for normal groups in a study done to find

the production of agent + action + object + locative relations by 3; 6- and 5; 6-yr-old normal children and language-disordered children.

Stockman (1992) studied locative action utterances and were differentiated by the types of locative words used singly and in combination used by a language-impaired child were tracked between 1 year 6 months and 3 years and compared with those of three age- and MLU-matched normal children. The results suggested that differences in the semantic properties of language-impaired and normal children's utterances goes undetected unless a fine-grained analysis is performed on the types of expressions used within a global relational category. The study also stressed on the potential value of extending semantic-relational analysis by exploring word use in syntactic contexts.

Tim and Pye (2005) opined that, children with language impairments demonstrate a broad range of semantic difficulties, including problems with new word acquisition, storage and organization of known words, and lexical access/ retrieval but unfortunately, assessments of children's semantic skills are often limited to measures of receptive and expressive vocabulary size.

Subba Rao (1995) showed that mentally retarded subjects do not differ significantly from their normal counterparts at semantic intentions at word level and semantic relations at 2 word phrase level constructions. Higher Mental age group performed better than lower Mental age group.

Prathamesh, Kuruvilla and Subba Rao (2013) obtained extensive language data in Kannada speaking children with Intellectual disability and compared with mental age matched normal children and showed no significant difference in performance with normal children in their frequency of use.

Haritha (2013) aimed to understand the usage of semantic relations in 4-5 years old Malayalam speaking children, and found significantly in conversation, monologue and story narration in relatively decreasing order respectively. The study concludes that all the parameters of semantic relations are already acquired in 4-5 year old Malayalam speaking children.

Need for the Study

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Semantic Relations in 3.1-5 Years Old Typically Developing Konkani Speaking Children

Konkani language is an Indo-Aryan language belonging to the Indo-European family of languages and is spoken by majority of population in the western coast of India.

Konkani is spoken by majority of people in and around Mangalore and understanding development of semantic relations in typically developing Konkani speaking children is important for screening, diagnosis and intervention of language disordered children speaking Konkani. Description of semantic relations has been attempted in other languages such as Kannada (Subba Rao, 1995), Malayalam (Haritha, 2013), and dearth of research is reported and published on development of semantic relations in Konkani Language. Hence the present study tries to fill this gap by studying the usage of semantic relations in contexts of monologue (Picture description, Topic description) and conversation in 3.1-5 years Konkani speaking children.

Aim of the Study

The aim of the study was to study the usage of semantic relations in 3.1-5 years Konkani speaking children.

Objectives

To understand the usage and commonly seen semantic relations in 3.1- 4 years and 4.1- 5 years Konkani speaking children and to compare the usage of the semantic relations across groups.

Method

Subjects

18 Konkani speaking children in the age range of 3.1- 5 (9 in the age group of 3.1-4years and 9 in the age group of 4.1-5 years) attending kindergarten in Mangalore city, with no history of speech and language disorder, hearing problem, ontological, psychological, ophthalmic problem participated in the present study.

Test Material

Speech samples of minimum 100 utterances from conversation and monologue task (picture and topic description) were audiotaped. The audiotaped samples were further analyzed

based on a list of semantic relations and compared statistically for significant difference across groups using two way Anova test.

Test Procedure

Each subject was tested individually. Before the test, the clinician confirmed that the subject had no hearing and/ visual problem. The test was administered in a quiet room with adequate illumination of noise. The subject was seated next to the examiner at 1 foot distance in front of the standard laptop with inbuilt microphone. Before testing, the clinician had an informal interaction with the subject in order to build a rapport. Subject was instructed to respond properly in every task.

Results and Discussion

Language data obtained from conversation and monologue task was analyzed, based on a list of semantic relations. The uses of various semantic relations from the Brown's list of semantic relations were noted down.

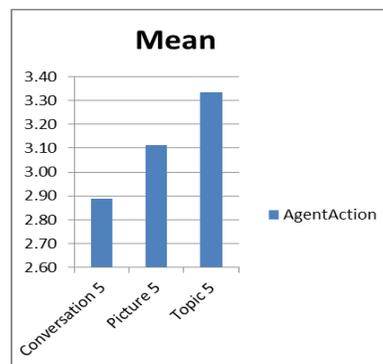
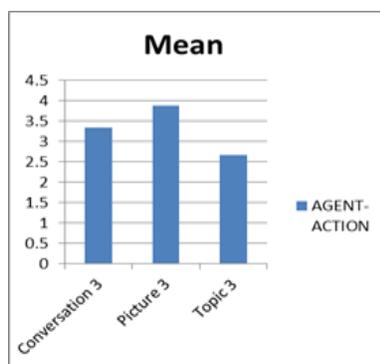
Results showed highly significant values for Descriptive ($p=.000$), Locative ($p=.000$), Quantitative ($p=.011$), Existence ($p=.005$) and Denial ($p=.000$) in 3.1- 4 years group and no significant values were found for other semantic relations.

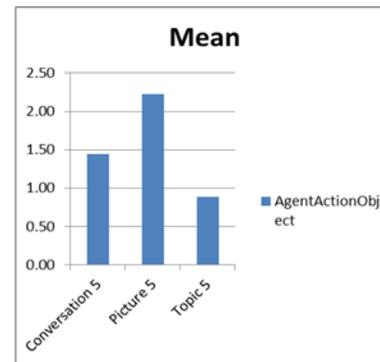
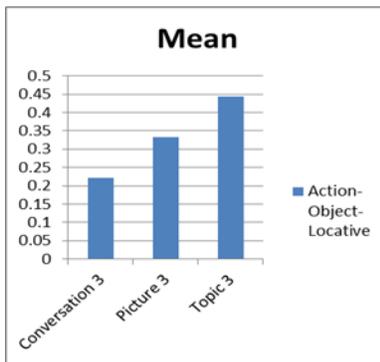
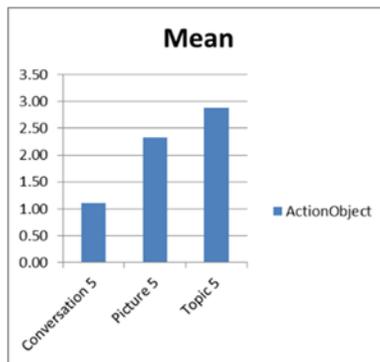
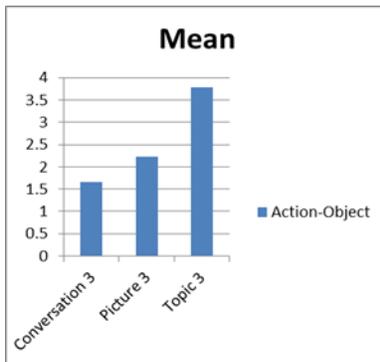
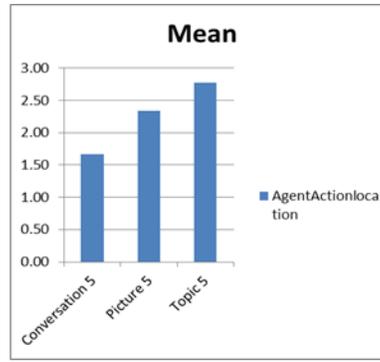
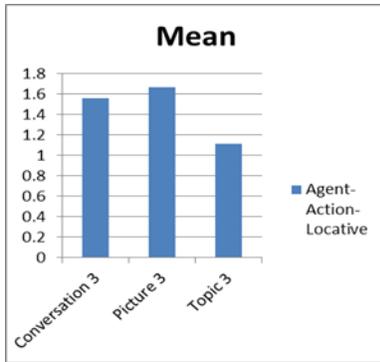
Highly significant values obtained only for Locative ($p=.000$), Existence ($p=.036$), Non-existence ($p=.041$) and Denial ($p=.000$) in 4.1-5 years group and no significant values were found for other semantic relations.

semantic relations	3.1- 4years	4.1-5 years
Agent Action	0.607	0.884
ActionObject	0.14	0.292
AgentObject	.	.
Possessive	0.383	0.362
Description	0	0.117
Locative	0	0
Temporal	0.128	0.265
Quantitative	0.011	0.46
Conjunctive	0.298	0.243
Existence	0.005	0.036
Recurrence	0.549	0.124
NonExistence	0.157	0.041
Rejection	0.768	0.613
Denial	0	0
AgentActionObject	0.962	0.511
AgentActionlocation	0.856	0.473
ActionObjectLocation	0.713	0.178

Table:1. Shows the significance of the semantic relations in 3.1-4 years group and 4.1-5 years group of normal typically developing Konkani children. Highlighted sections are the highly significant semantic relations among the group.

Semantic relations like Agent+ Object was not seen across the age groups. Agent+ Action, Agent+ Action+ Location, Action+ Object, were commonly seen in both the groups for conversation and monologue (picture and Topic description) task and Action+ Object+ Location was commonly seen in 3.1-4 years group and Agent+Action+ Object was commonly seen in 4.1-5 years group.





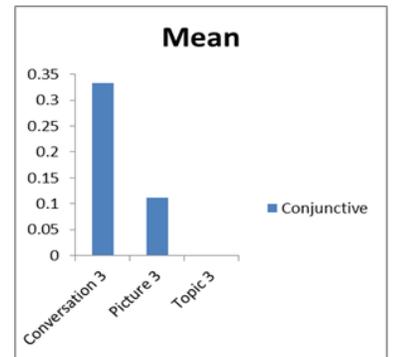
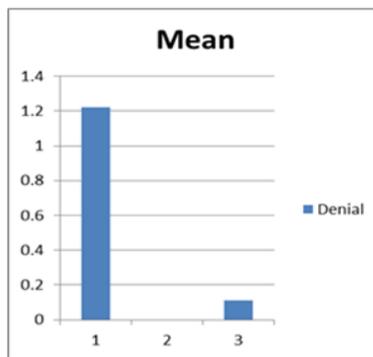
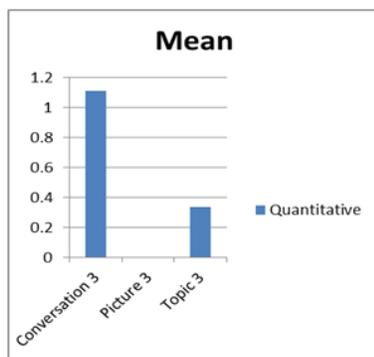
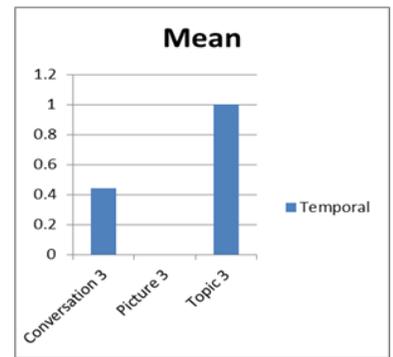
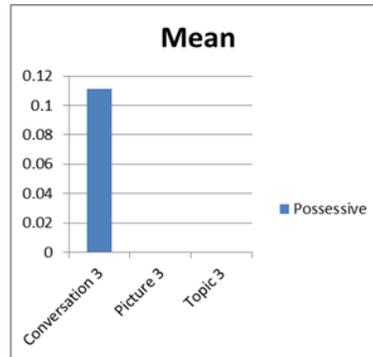
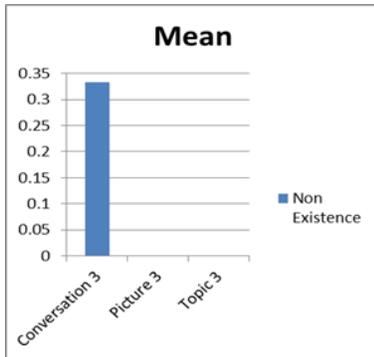
Set1 graphs:

Above mentioned graphs show the mean of most commonly used semantic relations in 3.1-4 years group and 4.1-5 years group of normal typically developing Konkani children.

In conversation task, all the semantic relations were present in both the age groups except Agent+ Object.

Across task comparison, showed presence of semantic relations namely Non-existence, Denial and Possessive only for conversational task and Temporal, Quantitative, Denial were

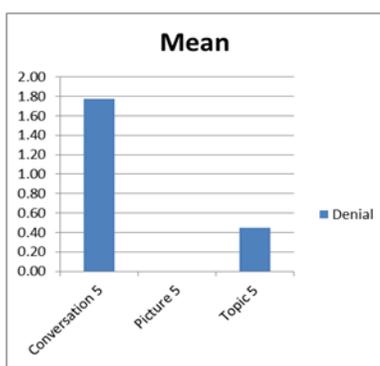
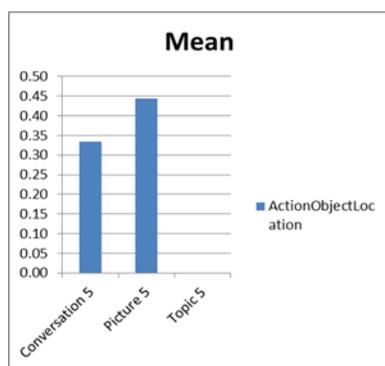
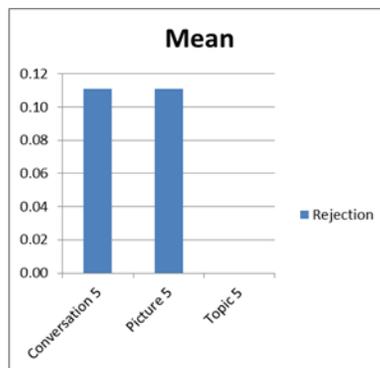
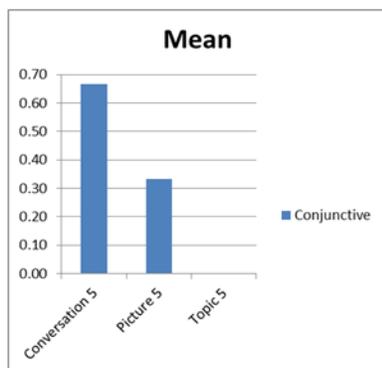
absent in Picture Description task, and conjunctive was absent for topic description task in 3.1-4yrs group.



Set 2 graphs:

In the above mentioned graphs of semantic relations namely Non-existence and Possessive shows their usage only for conversational task and graphs of semantic relations namely Temporal, Quantitative, Denial shows their absence in Picture Description task, and the graph of conjunctive shows its absence for topic description task in 3.1-4yrs group.

Conjunctive, Rejection, Action+ Object+ Location were absent for topic description task and Denial was absent for picture description task in 4.1-5yrs group.



Set 3 graphs:

The above mentioned graphs of the semantic relations such as Conjunctive, Rejection, Action+ Object+ Location shows their absence for topic description task and graph of Denial shows its absence for picture description task in 4.1-5yrs group.

Semantic relation is a critical feature of communicative behavior. The absence of semantic relation control distinguishes reflexive behavior from true communication. In the present study, 3.1-5 years old typically developing children displayed a variety of semantic relations. The flow of language in terms of semantic relation were explicit in conversation task. This study is in correlation with the study done by Prathamesh, Kuruvilla, Subbarao (2013).

Summary and Conclusion

Humans use language to express inner thoughts and emotions, make sense of complex and abstract thought, to learn to communicate with others, to fulfill wants and needs, as well as to establish rules and maintain our culture. In the early language development, as the vocabulary

increases, children move from word to phrase level where they make use of semantic relations to formulate the phrase. The present study was undertaken to understand the semantic relations in and across 3.1- 4years group and 4.1- 5 years group in Konkani speaking children. Both the groups displayed variety of semantic relations and is evident that, the usage of semantic relations were comparatively more in conversation task attributing to the environmental stimulation in both the groups and on elicited speech, few semantic relations were noted to be absent or less and present study is in accordance with the Prathamesh, Kuruvilla and Subba Rao (2013) in which, they have said Agent+ Action, Action+ Object are commonly seen in 4-7 years old children. Hence we can conclude that, though semantic relations are frequently used in 4.1-5 years compared to 3.1-4 years group, all the semantic relations are not adequately used by the age of 5 years in Konkani Speaking children. Hence from present study it is concluded that understanding development of semantic relations in Konkani children is important for screening, diagnosis and intervention of language disordered children across Konkani population in west coastal India.

Limitations

The study included limited participants and excluded phrases with preposition, modifying phrase and carrier phrase semantic relations.

Future Studies

The present study can be further extended to find the excluded semantic relations in a larger population.

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