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VARIAÇÕES SEMÂNTICAS NOS ENUNCIADOS DE CRIANÇAS EM PROCESSO DE
DESENVOLVIMENTO DA LINGUAGEM ORAL: ESTUDO PRELIMINAR
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SEMANTIC CHANGES IN THE STATEMENTS OF CHILDREN
IN THE PROCESS OF DEVELOPMENT OF ORAL LANGUAGE:
PRELIMINARY STUDY

Variações semânticas nos enunciados de crianças em processo
de desenvolvimento da linguagem oral: estudo preliminar

Tatiana Rocha Silva(1), Denise Brandão de Oliveira e Britto(2)

ABSTRACT
Purpose: to analyze the semantics of the statement of changes were in the process of development of language. Methods: the study included 10 children in the process of development of language, between three and four years, without complaint and / or hearing and cognitive impairments. Data collection was performed through the observation and recording, audio and video, playful interaction situations Results: in the statements of children aged 3 years, it was observed that there was a higher occurrence of super-extension only in relation to sub-extension (p=0.039) and that there was a trend to higher incidence when compared with the proximity phonologic (p=0.053), deitic (p=0.053) and relation of contiguity (p=0.083). In the statements of children aged 4 years, there was a higher occurrence of periphrasis in relation to sub extension (p=0.012) and proximity phonologic (p=0.012). There was no difference between the semantic changes studied between the ages of 3 and 4 years. Conclusion: the variations were most frequent semantic super-extension and periphrasis.

KEYWORDS: Child Language; Semantics; Symbolism; Language Development; Intention

INTRODUCTION

The human holds a mental lexicon, and this is accessed when there the desire to represent, by words, an object, an action, an attribute, an event. The learning of words and how to use them accordingly is a fundamental aspect of the language development 1,2.

The process of lexical acquisition is complex and the their research requires a look from different perspectives. The learning of words more than any other aspect of the linguistic acquiring is found at intersection of the cognitive and linguistic development. Understanding how children learn new words is fundamental for understanding of the acquisition process and language development 2.

The semantics is the coating intellectual and rational of the language. Is the responsible by understanding the value of things of the world. It depends much more of the enunciate/interlocutor than of the enunciator/announcer. The semantic is the responsible great by understanding and unpleasantness among people. It is also the responsible by expansion of the tongue by of the resource of the polysemy. This is the attribution of many senses for an only word. The sense different submitted by same word depends on context wherein she is used or for which she is directed 3,4.

The human language is polysemic, because the signs, having an arbitrary character and gaining their value in relations with other signs, suffer changes of meaning in each context. The polysemy depends on the fact of the signs be used in different contexts 5,6.

The semantic studying not only the meaning of words, but also the of the utterances and texts. The semantic is fully context-dependent. As there silent language, only of thinking, the behavior and the

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Conflito de interesses: inexistente
personality are externalized by a language which can be interpreted adequately or inadequately the intention of the speaker 7.

The studies about semantic development are intended of understand the process of acquisition of the meaning of words by children. Moreover, these studies allow to understand as children expand your vocabulary, with which speed and, mainly, which the phenomena that characterizing the use of words during the development lexical. The lexical acquisition relates to the ability of understand and produce various kinds of meanings 1,7,8.

It is noticed that, among researchers, there is a tendency in detach that the principle that governs the categorization and the concept formation is the analogy or analogical reasoning. It is understood by analogy the feature that allows put two concepts in relation, whether closer or farther. When transferring concepts of an semantic domain to another, can be produced the that that cognitive linguistics called of metaphor 4.

However, the cognitive linguistics revolutionized the study of the metaphors to propose that the metaphor is conceptual, related to the functions of thought and of language and, hence, inherent in human cognition. By integrating cognition, think and speak metaphorically would independent skills of intentionality and consciousness, may be issued effortless by ordinary people. Moreover, the conceptual system is, partly, metaphorically structured, in other words, the metaphor has an important function in the formation of concepts e of the language 4.

The notion of semantic introduces the domain of language in employment and in action, so observed in the language its mediating function between man and the man, between man and the world, between spirit and things, transmitting information, communicating the experiment, enforcing adherence, raising the response, begging, constraining; and in abstract, organizing all the life of the men. Is the language as instrument of the description and of the reasoning. Only the operation semantic of the language allows integration of society and the appropriateness to the world, and consequently the normality of thought and the development of consciousness 9-11.

All stimuli of the environment are generally interesting for the young child. And for good development of the language the curiosity for new and the experience are essential so that all information are added and integrated with older and so internalized. So, the most information should, posteriorly, result in communication and in language. So, discover, recognize, know, understand and responding to emotions, affections expressed in the face of others, in different voice inflections and lastly discern meaning of each word and of the speech produced by people constitute a task that depends both on external factors as internal possibilities of each subject 11-15.

There are individual differences in language development both during periods in which certain characteristics should appear as the speed and in the quality of language. These factors are relate the internal capabilities of each individual and to the environment, that must be rich in stimuli and enable various experiments 16,17.

The language is shown by a clear link between gestures, word, syntax and communicative intent or desire and wanting to transmit one or more persons an message for this to be reciprocated. No doubt, develop language is more than talk. Is be an active partner the different social relations and this means that the language must communicate about what the individual wants, whether, knows and feels. This language should also reflect that the individual understood, the sense implied therein and not always explained, nay, the intentions, desires, wills, requirements of the other should be interpreted for the child can interact 18,19.

The individual act whereby the tongue is used first inserts the announcer as parameter under conditions necessary of the enunciation. Before the enunciation, the language is not but the possibility of speaking. After the enunciation, the language is performed in an instance of discourse, emanating from a speaker, sound form that reaching a listener and that raises another enunciation of return 20.

Learning and knowing a language implies knowledge of the meanings agreed of certain sounds chains, knowing these units combine other wider, also carrying meanings. The importance of semantic in the acquisition and development of language states in that the fact of a language there through the content that conveys, once the child learn under his pragmatic aspects and semantic before focusing in morphological and syntactic aspects 21,22.

It is known that there is a strong synchronism between the development lexical and the phonological system. There are children with little phonetic repertoire that tend to have relatively few words stored in the lexicon, and children with wide vocabulary and relatively complete repertoire. If a child has few phonemes at hand and attempts to produce large number of different words, she simply not can, because it does not have enough sounds to produce these words, producing, then, homonymous forms, the that makes his speech difficult to understand 22.

The semantic acquisitions of language depend on the degree comprehension of the subject (level experiments and of the internal organization of the
The children were selected from the Outpatient Voice, of Orofacial Motricity, of Speech and of Oral Language of the Centro Clínico de Fonoaudiologia. It is noteworthy that the children selected were in speech therapy weekly by having several complaints, eg, hoarseness, mouth breathing and changes in speech.

The responsible by the children that arrive at Centro Clínico de Fonoaudiologia da PUC Minas authorize previously, through the Consent Term, the observation and recording procedures in academic and scientific activities. Therefore, this was used as authorization for the data collection.

The semantic changes in the statements of children were analyzed by observing and recording, in audio and video, of the treatment thereof at the Centro Clínico de Fonoaudiologia da PUC Minas. For data collection we used digital camcorder of the brand Samsung, model SMX-C200BNXAZ.

Each record had, in average, of 20 to 30 minutes in duration. The copyrighted material was assisted and the situations of play interactions, with therapists, were transcribed and the content productions analyzed based in the discourse of children, ie, were analyzed the semantic relations or the meanings that the words have in his respective comparing the ability to understand and expression semantics.

After transcription of the situations of play interactions the semantic changes found were classified in contiguity relation, super extension, sub extension, proximity phonological, periphrasis, nonverbal semiotic, deictic and variations unclassified.

It is understood by contiguity relation the substitution the word expected by another, involving sense relations. These relations can be the part for the whole, the contingent for the content, the material for the object, the place by brand, the product by brand, the gender by species, the possessor by possessed, and vice versa. Example: cop by "man".

The super extension is the use of word of the same semantic field of the word expected, attributing a trace signifying that not has. Thus, there an expansion of the semantic field of the word. Example: “Dog” for cat. The sub extension is the use of an word to represent only a subset of traces of signification that the word has. So, there an reducing the semantic field of the word. Example: “whelp” for teddy bears.

The proximity phonological is the use of an word that has phonology similar the expected word. Example: “stuffing” by breaded. The periphrasis is the substitution the word expected by word or phrase that designate function, action or place. Example: giraffe – have there at the zoo. The nonverbal semiotic is the use of gestures or onomatopoeia for

**METHODS**

The procedures in this study were approved by the Research Ethics Committee of Pontifícia Universidade Católica de Minas Gerais (PUC Minas), under protocol number 0083.0.213.000-11 (Resolution 196/96 National Health Council – CONEP).

This study was characterized by a pilot study, of descriptive typology, and qualitative and quantitative analysis. Were invited to participate in the research 10 children between 3 and 4 years, being 5 at the age of 3 years and 5 at age 4 years.

The participants of the research were selected in Centro Clínico de Fonoaudiologia (Clinical Center for Speech – Language Pathology and Audiology) of the Pontifícia Universidade Católica de Minas Gerais (PUC Minas). The subjects of this research were selected by means of the non-random sampling technique, of the type convenience sampling.

Were used as criteria for inclusion, to construct the study group, children in the process of language development, no complaints of and/or changes hearing and cognitive proven. For both, were observed records of children.
designate the figure. Example: church – puts hands juxtaposed. The deictic is the use of a pronoun or adverb for name the figure. Example: train – that

Were considered variations unclassified those that not matched the above classifications and/or were not found in the literature queried. Example: when the child does not name, or says he does not know, or when he says “frame” for window.

Then the data collected were tabulated and subjected to statistical analysis. The statistical analysis was performed by of the software MINITAB 14. Initially was performed the descriptive analysis of the sample in relation the number of occurrences of semantic changes considering all participants. This descriptive analysis understood measures of central tendency (mean and median), of dispersion (standard deviation) and of position (maximum and minimum).

Besides descriptive statistics was performed the inferential statistics by of the test nonparametric Mann-Whitney. This test was conducted with the objective of compare the occurrence of semantic changes among groups (3 and 4 years), beyond compare these variations in a same group, to determine if the difference is statistically significant. It was adopted the level of significance of 5% (p ≤ 0,05). It was considered as trend to statistical significance the results significant at level of 10% (p ≤ 0,10).

 RESULTS

The mean age of the study population was 3,5 years (standard deviation 0,71), being 8 (80%) of the male and 2 (20%) of the female.

In the descriptive analysis of entire sample observed that the super extension was the semantic change with higher occurrence, then of the variations unclassified. On the other hand, the sub extension and the proximity phonological were the semantic changes with a lower incidence. The average occurrence of super extension was of 2,4 times, whereas the average occurrence of sub extension and proximity phonological was of 0,4 times, in other words, the average occurrence of super extension was greater than the average occurrence of the too

<table>
<thead>
<tr>
<th>Semantic changes</th>
<th>Mean</th>
<th>Median</th>
<th>DP</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contiguity Relation</td>
<td>1</td>
<td>0,5</td>
<td>1,33</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Super Extension</td>
<td>2,4</td>
<td>1,5</td>
<td>2,84</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Sub Extension</td>
<td>0,4</td>
<td>0</td>
<td>0,97</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Proximity Phonological</td>
<td>0,4</td>
<td>0</td>
<td>0,70</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Periphrasis</td>
<td>2</td>
<td>2</td>
<td>1,83</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Nonverbal Semiotic</td>
<td>1,7</td>
<td>1</td>
<td>1,95</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Deictic</td>
<td>1</td>
<td>0,5</td>
<td>1,25</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Unclassified</td>
<td>1,9</td>
<td>1,5</td>
<td>2,08</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>

Legend: DP = standard deviation

Table 1 – Measures of central tendency, dispersion and position for the occurrences of Semantic changes considering all informants (n=10) in absolute values
nonverbal semiotic (p=0.060) and with the variations semantic unclassified (p=0.081) (Table 2).

In the statements of the children aged 3 years verified that the super extension was the semantic changes more frequent. The sub extension, the proximity phonological and the deictic were the changes that had lower occurrence. The average occurrence of super extension was of 3.8 times, whereas the average occurrence of sub extension, proximity phonological and deictic was of 0.6 times, in other words, the average occurrence of super extension was greater than the average occurrence of the too semantic changes found in the statements of the children aged 3 years (Figure 1).

Still of the super extension be the semantic change of higher occurrence, in the statements of the children aged 3 years, observed that there trend toward a of the super extension only in relation the sub extension (p=0.039) and that trend toward a higher occurrence compared with the proximity phonological (p=0.053), deictic (p=0.053) and contiguity relation (p=0.083). For the semantic changes less frequent, observed that there lower occurrence of the sub extension only in relation the super extension (p=0.039). It has also that trend toward a

Table 2 – Comparison of the semantic changes with those of highest and lowest occurrence in all informants

<table>
<thead>
<tr>
<th>Semantic changes</th>
<th>Super Extension (more)</th>
<th>Sub Extension (minor)</th>
<th>PF (minor)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super Extension</td>
<td>--</td>
<td>0.027*</td>
<td>0.038*</td>
</tr>
<tr>
<td>Periphrasis</td>
<td>1.000</td>
<td>0.013*</td>
<td>0.014*</td>
</tr>
<tr>
<td>Unclassified</td>
<td>0.815</td>
<td>0.059#</td>
<td>0.081#</td>
</tr>
<tr>
<td>Nonverbal Semiotic</td>
<td>0.698</td>
<td>0.037*</td>
<td>0.060#</td>
</tr>
<tr>
<td>Deictic</td>
<td>0.253</td>
<td>0.196</td>
<td>0.283</td>
</tr>
<tr>
<td>Contiguity Relation</td>
<td>0.238</td>
<td>0.197</td>
<td>0.302</td>
</tr>
<tr>
<td>Sub Extension</td>
<td>0.027*</td>
<td>--</td>
<td>0.727</td>
</tr>
<tr>
<td>Proximity Phonological</td>
<td>0.038*</td>
<td>0.727</td>
<td>--</td>
</tr>
</tbody>
</table>

* Significant values (p ≤ 0.05) – Test Mann-Whitney
# Trend towards statistical significance (0.10 ≤ p ≤ 0.10) – Test Mann-Whitney

Legend: PF = proximity phonological

Figure 1 – Mean of occurrence of the semantic changes in the ages 3 years and 4 years
lower incidence of the proximity phonological and of the deictic only compared with the super extension (p=0.053) (Table 3).

The periphrasis was the semantic change more frequent in the statements of the children aged 4 years, then of the variations unclassified. The changes less frequent were the sub extension and the proximity phonological. The average occurrence of periphrasis was of 3 times, whereas the average occurrence of sub extension and proximity phonological was of 0.2 times, in other words, the average occurrence of periphrasis was greater than the average occurrence of the too semantic changes found in the statements of the children aged 4 years (Figure 1).

Through statistical analysis inferential observed that, in the statements of the children aged 4 years, there higher occurrence of the periphrasis in relation the sub extension (p=0.012) and proximity phonological (p=0.012). On the other hand, there lower occurrence of the sub extension and of the proximity phonological compared with the periphrasis (p=0.012), with the variations semantic unclassified (p=0.044) and with the nonverbal semiotic (p=0.019) (Table 4).

In the comparative analysis of the semantic changes in the statements of the children aged 3 years and of 4 years observed that no there difference between the changes contiguity relation (p=1.000),
Acquire words is not just talk, but understand the spoken word and look for it in memory. Furthermore, is using the skills metalinguistic to conclude something about the words heard. It can not be passive in the that concerns the language. It is essential that the individual to use their cognitive capacity to understand and intervene in the world. Without a broad repertoire of words, becomes difficult for children create new conceptual categories. With few categories, the search for meaning and understanding becomes slower, complicating the acquisition of rules to form words or to accompany the communicative situations.

There are several study investigating the process of lexical acquisition, but there is still no consensus about as the children can correctly associate a new word to a concept, whereas there are so many possibilities to the meaning of a word. Despite the differences, the researchers agree that the acquisition process lexical presents, on one side, numerous challenges and, for other, can be facilitated by linguistic and social factors.

The theories of lexical development suggest that the development of the concepts occurs in steps or successive stages of greater complexity as cognitive development progresses. Therefore, more developed cognitive structures allow the formation of concepts increasingly abstract and elaborate.

In the present study we observed that in the statements of the children aged 4 years the periphrasis was the semantic changes of higher occurrence while that in the aged 3 years the super extension was the changes of higher occurrence. In another study assessing the performance of children in a vocabulary test the semantic deviations more frequent in the ages 3 and 4 years were the super extension and the contiguity relation, being that the children smaller presented a number higher occurrence that the bigger in the two deviations.

Several studies have sought to understand as the concepts are constructed and organized. Benedict showed that memory semantics is organized by analogical relations between different concepts and that the related concepts that are nearer tend to be recovered in a shorter time. This author also stressed that the mechanism that allows access concepts related is the analogical reasoning. Posteriorly, Tonietto, Parente, Duvignau, Gaume e Bosa also reported that the conceptual system organized into categories.

Tonietto, Parente, Duvignau, Gaume e Bosa also reported that the conceptual categories are not classes closed. Unlike, seem to be ill-defined. For this reason, in the dynamic linguistics, concepts of a category or semantic domain are easily used in another domain, evidencing the linguistic and cognitive flexibility.

In this study there was no, in the statements of the children, the using concepts of a semantic field that were used in other semantic field. It is noteworthy that have been observed variations unclassified and that the average occurrence these variations was greater in the age 4 years. In a similar study observed, also, that no there the using concepts of a semantic field in another category, but there were items that were not named in the vocabulary test and the occurrence of no appointment was greater in the age 3 years.

During the initial acquisition of the lexicon, this possibility of put two concepts or terms in relation raises, sometimes, linguistic productions judged outside the norm. In effect, in the process of lexical development, the announcer apprentice produces deviant statements in relation for adult use.

In this study the semantic changes observed were the contiguity relation, super extension, sub extension, proximity phonological, periphrasis, nonverbal semiotic and deictic. In another study with a sample of 400 children aged 3 to 6 years have been observed the semantic deviations by contiguity relation, super extension, proximity morphological, proximity phonological, antonymy, deictic, periphrasis and designation nonverbal. It is noticed that only the variations sub extension, proximity morphological and antonymy no were common the two studies. This fact can be justified by difference of age range of the children studied and by the small sample.

The children in the process of lexical acquisition can commit many semantic deviations in function of not having still well organized the set of traces of signification that differentiate the use of one word from another in the different linguistic contexts. Thus, the term deviation is utilized with the finality of represent the lack of correspondence between the meaning of the word of the adult language and the meaning of that word in the child’s language.

The semantic deviations can occur by a number of factors. Some occur because the child not can rescue of the memory the phonological form correct of the word, other by analogy, others in function of the words can be used always in a same context. However, deviations as the super extension, for example, can occur because of the words share
perceptual or functional traits. And, still there is the deviations that occur for communicative purposes, in other words, the child super extend or sub extend the meaning of a word by the fact of has not acquired a most appropriate 19.

The children begin to babble around 6 to 9 months and the first words appear around 10 to 15 months, being that the short words are acquired first of the that the more extensive. The semantic deviations are part of the acquisition process early lexical, disappearing or decreasing as the child increases your vocabulary 9, 22.

In this study there was no difference between the ages of 3 and 4 years for the semantic changes studied. But in another study difference was observed between the ages of 3 and 4 years and no difference was observed between the ages of 5 and 6 years. The authors found yet that how much most the younger higher occurrence of items not named and that how much most increasing age lower occurrence of semantic deviations. By establishing a relationship between the age and the different types of deviations the authors observed that from 4 years no child made use of designations nonverbal and from 5 years no child made use of periphrasis 8.

There is, however, the question of as the influence of the middle has one effect in the task of acquiring words. There are authors that investigated as children solve the shapes of words homonymous, in other words, as they learn to distinguish, linguistically and conceptually, different concepts that have the same name. These authors, concluded that the influence of the means, in the which the children are inserted, may be a facilitator in this task. After all, the social growth of the child imply its insertion and participation in groups that situations arise of interaction that structuring its environment and to create it needs increasingly advanced of communication 15.

From this assumption perceives that numerous variables characterized lexical development. So, becomes difficult present evolutionary milestones of the semantic development and of the linguistic skills.

The studies on the acquisition lexical revealed quite as the children begin to acquire a lexicon. However, yet, known to relatively little about as the children build its first insights as that learn new words 19.

CONCLUSION

Despite the small number of study participants, the data obtained deserve some consideration. Is, of fact, difficult to establish procedures that can, actually, to account of the evolution of development semantic. However, any procedure will not deplete the production possibilities and, consequently, of use of words that someone is able to produce and understand, but can characterize the performance in particular linguistic situation. So, the elaboration of procedures for evaluation of semantic becomes possible.

From the results of this study, can conclude that the semantic changes had an average occurrence different in the groups studied. But, in the comparison between groups no significant differences were observed.

The similar studies number is reduced, confirming the methodological difficulty and logistics this type of study. Thus, other studies should be conducted with a greater casuistry and having different inclusion criteria that include children in different stages of language development.
RESUMO

Objetivo: analisar as variações semânticas do enunciado de crianças em processo de desenvolvimento da linguagem. Métodos: participaram deste estudo 10 crianças em processo de desenvolvimento da linguagem, entre três e quatro anos, e sem queixa e/ou alterações auditivas e cognitivas. A coleta de dados foi realizada por meio de observação e registro, em áudio e vídeo, de situações de interação lúdica. Resultados: nos enunciados das crianças na faixa etária de 3 anos, observou-se que houve maior ocorrência da superextensão apenas em relação à subextensão (p=0,039) e que houve tendência a maior ocorrência quando comparada com a proximidade fonológica (p=0,053), déitico (p=0,053) e relação de contiguidade (p=0,083). Nos enunciados das crianças na faixa etária de 4 anos, houve maior ocorrência da perífrase em relação à subextensão (p=0,012) e proximidade fonológica (p=0,012). Não houve diferença entre as variações semânticas estudadas entre as faixas etárias de 3 e 4 anos. Conclusão: as variações semânticas mais frequentes foram a superextensão e a perífrase.

DESCRITORES: Linguagem Infantil; Semântica; Simbolismo; Desenvolvimento da Linguagem; Intenção

REFERENCES