Lexical Semantic Organization in Children and Young Adults: A Comparison

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Abstract

Lexical semantic organization refers to the organization of lexical items in the lexicon. The lexical semantic organization would vary as function of age. Children may show a taxonomic organization while young adults and older adults may show thematic organization. However, there is mixed evidence regarding the same, this fact necessitated the current study. The study was carried with aim of comparing the lexical semantic organization in children and adults. Participants in two age ranges (8-12 years, 18-30 years) were considered and discrete word association task was administered on the participants and the findings showed that there was no significant difference between the responses provided by the participants of the two age groups.

Keywords: Lexical Semantic Organization; Thematic Organization; Children and Adults

Introduction

The term lexical semantic organization is used to refer to the arrangement of words in the mental lexicon. The arrangement of words in the lexicon follows a trend. Many proponents [1,2] have used different terms in explaining lexical semantic organization. Dichotomously, the terms taxonomic and thematic or syntagmatic versus paradigmatic is used. The word taxonomic refers to the arrangement of words based on the lexical category, in other words lexical entries belonging to a particular lexical category is arranged together, While the term thematic refer to the arrangement of words based on the theme in other words, lexical entries with a common theme are assumed to be arranged in specific modules. The terms syntagmatic and paradigmatic are also used extensively in explaining lexical semantic organization [3]. Syntagmatic refers to a horizontal relationship between the words in the sentence while the term paradigmatic refers to a vertical relationship between the words which belong to the same category. The lexical semantic organization can be probed by employing word association task where the participants are asked to produce responses after hearing the target word [4].

If the number of responses are stipulated, then the term discrete word association is used. The lexical semantic organization is assumed to vary as a function of age. Younger children are assumed to produce more taxonomic responses on word association task while adults are assumed to produce more thematic responses [5]. The shift is termed as taxonomic to thematic shift. However studies pertaining to this have been carried out in children between 5-8 years of age hence the relevance of the shift in relatively older children is to be tested and this fact necessitated the current study.

Need of the Study

As per the aforementioned findings, most of the studies on lexical semantic organization have been carried out in children of very age and adults. This may not enable to track the development or witness the trend pertaining to lexical semantic organization [6]. The young adults are assumed to produce a variety of responses compared to relatively older adults. Most of the studies in this direction haven done in adults between 30-50 years of age. The current study uses the discrete the word association task to study lexical semantic organization in children between 8-12 years and young adults between 18-25 years.

Aim of the Study

To study lexical semantic organization in children between 8-12 years and young adults between 18-30 years of age.

Objectives

To compare the number of responses under pre-determined response typologies in the two groups of participants.

Methods

Participants

A total of 50 participants were recruited for the current study. The participants were divided into two groups. The first group comprised of 25 participants in the age range of 8-12 years, while the second group comprised the same number of participants in the age range of 18-30 years. Convenient sampling was used for the recruitment of participants. Discrete word association task was administered on the participants.

Stimulus

20 stimulus was used for the current study. The words were presented in the auditory modality. The words belonged to 5 lexical categories namely animals, fruits, vegetables, birds and common objects. Thus 4 words from each category were presented in a random order. The stimulus was presented in auditory category. The participant was instructed to listen to the target word and produce 5 responses for each of the stimulus item.

Procedure

The responses produced by the participants were audio recorded and analyzed. The responses were categorized under 5 categories. Taxonomic, Thematic, Subjective, irrelevant and no response. The responses were categorized under taxonomic when it belonged the same category as that of the target word. The responses were coded as thematic when the words explaining the target item was produced as response. The word subjective was used when the response was participant specific. Irrelevant response was used when the response did not match with the target item. No response was used when the participants failed to produce any response.

Scoring

A maximum of 100 responses was obtained for the participants. The scores reduced when the participants produced more of no responses. The data was tabulated and analyzed using SPSS version 21.0.

Results and Discussion

The number of responses across the five response types were analyzed for the two group of participants. Group 1 participants secured a median score of 48 on thematic, 25 on taxonomic, 12 on subjective, 10 on irrelevant and 5 on no responses. Group 2 participants secured a median score of 45 on thematic, 26 on taxonomic, 15 on subjective, 11 on irrelevant and 3 on no responses. In order to verify if there was any significant difference between the response types. Kruskal-Wallis test was used and the X2 value obtained ranged from 0.34 to 0.98 across the five response types and the corresponding p values showed no significant difference between the responses for the participants of the two groups. The results showed that there was no marked difference between the children and young adults in terms of lexical semantic organization. Participants of both the groups produced more of thematic responses followed by taxonomic responses, subjective, irrelevant and no responses. The trend of responses was same for participants of both the groups. Hence the lexical semantic organization did not differ much with respect to the participants of both the groups. Hence it can be inferred that the lexical semantic organization of relatively older children would be almost similar to that of young adults. The taxonomic shift is presumed to occur before the age of 8.

Conclusion

The study was carried out with the aim of analyzing the responses on discrete word association task to decipher details on lexical semantic organization as a function of age. The results showed that the lexical semantic organization did not vary within the two groups showing that the pattern of responses by the age of 8-12 years would be similar to that of young adults.

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