



Shift in Associations in the Lexical Networks of the Learners of English as a Second Language

KEYWORDS

Psycholinguistics; Lexical Networks; Word Association; Shift in Associations

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ABSTRACT *This research paper is a study on the process of vocabulary acquisition of the learners of English as a Second Language. The psycholinguistic perspective of language acquisition suggests that in the 'mental word store' (Aitchison, 2003) or the Mental Lexicon, vocabulary exists in networks. The study of the lexical networks is being done consistently by psychologists, to study the networks, through a variety of word association tasks. In this study, the researcher has made a psycholinguistic study of the associational behaviour of a set of L2 learners, through repeated Word Association tasks. The participants of the study are a set of undergraduate students registered under various courses of Science and Humanities. The study has been conducted in 3 phases to observe the properties of the associations and changes in the association, with the increasing word knowledge. Significant changes and certain patterns could be observed with the increasing knowledge, which carries implications for the teaching vocabulary of English as a Second Language.*

INTRODUCTION

Vocabulary acquisition, a crucial part of the language acquisition, remains an important area of research. The second language vocabulary acquisition, with its singularities, the influence of the unique social conditions and first language of different places, is a substantial part of the vocabulary acquisition research. In India, where English has acquired the status of Second Language because of its long association with the land, the Language has been customised long since and has been influenced by the land. The sources of acquisition of the English Language vocabulary have multiplied and some words have acquired different connotations for the L2 speakers. This calls for continual research conducted on the different population of the country.

The theories and implications of Psycholinguistics play a vital role in the vocabulary acquisition research. The psycholinguistic studies of vocabulary acquisition have indicated that words are acquired and stored in networks, made by their relationship with each other in terms of their semantics, conceptual associations or even their forms. Probing into these networks and the association of the words with each other gives an insight into the process of acquisition and memory which, in turn, helps enhance the teaching methods.

The research paper is a study of the vocabulary networks and associational behaviour of the L2 learners, a set of Undergraduate students registered under various departments of Humanities and Science. The questions taken for probing are

Do the associational behaviours of the L2 speakers change with their increasing proficiency levels?

Do they show a pattern in change like the associational behaviour of the L1 speakers? What are the distinctive properties of L2 associations?

REVIEW OF LITERATURE

The Psycholinguistic perspectives on language acquisition suggest that the human vocabulary is stored in the mind in a unique system called 'Mental Lexicon' (Aitchison, 2003). According to Aitchison, in the Mental Lexicon, words are acquired, stored and processed in networks. The networks are made of the orthographic, phonological, semantic, syntactic, and conceptual relationships that connect them with each other. These networks are ever evolving, adding and losing the word entities. A word maybe connected to more than one network, in which case, one network maybe stronger and more dominant than the others.

Psycholinguists have substantiated through their past researches that the best way to look into these networks is through various forms of word association tasks (Schmitt, 2000). Studying the words that are closely connected with a given word helps understand how the word is acquired, stored and remembered. In a simple form of a word association task, a stimulus is given and the participant taking up the task is asked to produce the first response that comes to the mind. Based on the relationship between the stimulus and the response, the associations are traditionally classified into semantic associations and clang (form based) associations.

The semantic associations are further divided into paradigmatic associations (words with synonymy and belonging to the same word class, e.g., synonyms, antonyms, coordinates, hyper ordinates etc.) and syntagmatic associations (words than occur in a sequence in a meaningful sentence, e.g., collocations, conceptually related words) (McCarthy, 1990). Linguists, who study the child language acquisition in an L1 scenario, have suggested that the clang associations are seen in very young children at the initial stages of learning. They move on to make syntagmatic and then to paradigmatic associations between the age of 6 and 8 (Ervin, 1961). At higher levels of proficiency, they are observed to make more of paradigmatic associations.

But in the case of L2 learners, even the adults, it is understood that the associations are more encyclopaedic, based on their experience and perception of the world around them. Also it is common for words to be misread for another word similar in form (Meara, 2009). It was hard to classify the associations and Fitzpatrick (2007) evolved a broad system of classification for L2 speakers that included meaning based associations, position based associations, form based associations, erratic associations and blank responses.

However for the current study, the researcher has made use of a categorisation system that accommodates the highly individualistic and varying responses facilitating a deeper and extensive analysis. After multiple revisions, the classification system evolved thus,

Paradigmatic associations: words with synonymy and usually belonging to the same word class (e.g., *tea-coffee, wagon – vehicle, tighten - loosen*)

Syntagmatic associations: collocations or words that can be a part of a meaningful sentence (e.g., *twentieth – century, scratch – ugly*)

Clang associations: words that imitate the form, associational responses of words similar in form and misread (e.g. *prescribe – describe, awed – award*)

Encyclopaedic associations: words associated in the participant's personal experience (e.g., *loyal – 'a friend's name', humble – 'a celebrity's name'*)

Non-words: words that do not make sense, words with wrong affixes, transcriptions of L1 words.

RESEARCH METHODOLOGY AND COLLECTION OF DATA

The research is based on a classroom experiment on a set of about 140 undergraduate students admitted under various departments of an Arts and Science College, affiliated to the Madras University, a University in the southern part of India. The participants were learners of English as a Second Language. The instrument for the study was a set of 28 words (a set of 7 words each of noun, verb, adjectives and adverbs) chosen from their prescribed text. The lack of frequency word lists for the population of the area of study and doubts over the standardised lists (e.g., Kent-Rosanoff list) made for L1 learners (Meara, 2009) led to the choice of words from the prescribed text. The study was then conducted in three phases in a span of four weeks.

Task 1 – the participants were given an individual list of the 28 words and were asked to write the first response that came to their minds for each word. They were encouraged to complete the task and produce a response even if they were unfamiliar with the meaning of the words.

Intervention – a brief teaching intervention was given in the classroom by explaining the word meanings and their usage in appropriate contexts. As a reinforcement activity, the participants were made to make sentences using the words.

Task 2 – after an interval of four weeks, the word association task was repeated again with the same set of 28 words.

The responses of Task 1 and Task 2 were taken for analy-

sis. After eliminating the incomplete works and the responses of the participants who did not attend all the three phases of the study, the participants for the study were narrowed down to 120. The total number of responses in each task was 3360 and they were analysed for the five types of associations. They were then recorded and studied for the shift in associations with the increasing proficiency level. The other characteristic features typical of L2 associations were also studied.

RESULTS AND DISCUSSIONS

The analysis of the associations proved to be a difficult task since a significant number of responses were individualistic and based on the participant's personality, fields of interest, perspective of the world, concepts learnt in the recent past, personal experiences etc. In a few cases, the responses had to be taken back to the participants to understand the associations. After several revisions, the responses were classified.

THE SHIFT IN ASSOCIATIONS

Table 1 shows the result of the classification and shift in associations in numbers. As it can be seen, the number of paradigmatic associations has increased by 34% and the syntagmatic associations have increased by about 13.7%. This is a pattern of change in associations that can be related to the L1 learners. The clang associations are observed to have reduced drastically by 50.2 %. The encyclopaedic associations that are typical of the L2 learners are however found almost constant in Task 1 and Task 2, despite the increasing proficiency levels. So is the number of non-words. Though there is a drastic increase in the paradigmatic associations, participants are observed to have an inclination towards syntagmatic associations both in Task 1 and Task 2.

Table 1. Results of Tasks 1 and 2 in Numbers

	TASK 1	TASK 2	INCREASE (%)	DECREASE (%)
Paradigmatic	908	1217	34.0	-
Syntagmatic	1139	1296	13.78	-
Clang	836	416	-	50.23
Encyclopaedic	277	270	-	2.52
Non Word	200	161	-	4.5

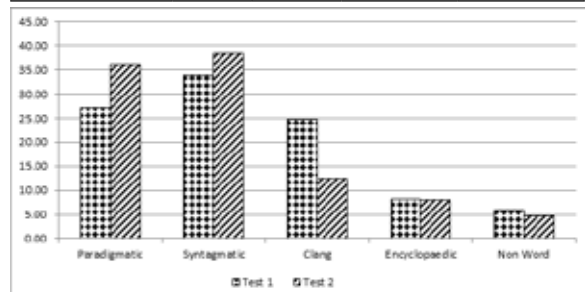


Figure 1. Graphical Representation of the Results of Task 1 and 2

THE SYNTAGMATIC – PARADIGMATIC FORWARD SHIFT

As discussed earlier, paradigmatic associations are believed to be produced at a higher proficiency level and there is a shift from syntagmatic associations towards paradigmatic associations. But with L2 speakers, according to the implications of the past researches, the shift may not be a clear one. In this study, it is found that 22.4 % of syn-

tagmatic associations have changed to paradigmatic, while only 11.5% of the associations have changed from paradigmatic to syntagmatic. However marginal the numbers are, the study indicates more movement from syntagmatic to paradigmatic, rather than the reverse. But, in a shift from paradigmatic to syntagmatic, it can be seen that both the associations seemed to have strong semantic relationships with the stimulus. In such cases, the syntagmatic associations are mostly collocations. Following the 'stimulus – response in task 1 – response in task 2' pattern, here are a few examples; '*strange – unknown – person*', '*twentieth – fortieth – century*', '*stabbing- killing – knife*'. In the above seen examples, both the paradigmatic associations of task 1 and syntagmatic associations of task 2 have strong associational affinities with the stimuli.

CLANG ASSOCIATIONS

The study shows clearly that L2 learners produce clang associations (form based associations) even at the tertiary level. However, the drastic decrease by 50.23% (as seen in Table 1) with the increasing proficiency level, conforms to the view that clang associations and form based networks are weak and they tend to change even with moderate intervention (Meara, 2009). However, there were a few clang associations that remained stubborn because of the familiarity of the sound or form of either the stimulus or the response (*tickle – pickle, loyal – royal*).

NON – WORDS

Non words are found to be a constant entity in L2 word associations accounting for about 5% of the total associations (Table 1). In this study, non-words were observed to have been made by errors in spelling, transcription of L1 words and inappropriate use of affixes. The lack of knowledge in affixes seemed to be a common phenomenon both in Task 1 and Task 2. '*Unslippery*', '*unmiserable*', '*unproperly*' are a few words that have been produced by more than one participant. In the above mentioned examples, the participants have some knowledge of the base form of the words and negative affixes, but they lack clarity in processing both and making the words.

ENCYCLOPAEDIC ASSOCIATIONS

It can be observed that the encyclopaedic associations make a significant percentage of the associations, just above 8%, in both Task 1 and Task 2 (Table 1 and Figure 1). Also, in this study, they are the only types of associations that remain constant with the increasing proficiency level. A major part of the encyclopaedic associations are made by relating a noun or adjective to a name (e.g. *tickle – 'a friend's name'*, *loyal – 'a sportsperson's name'*, *tea – 'a brand name'* etc.). These associations are not produced because of the lack of knowledge of the stimulus; rather they seemed to be preferred associations. However, they are found very less in higher proficiency level participants.

CONCLUSION

This study shows that the associational behaviour of the L2 speakers imitates that of the L1 speakers to an extent. However, the L2 associations have their own unique features as can be seen in the dominance of syntagmatic associations, presence of encyclopaedic associations and the occurrence of non-words. In future, more research can be extended into these areas for a deeper study. Extensive quantitative studies can help build a corpus of word associations and frequency word lists pertaining to the L2 speakers. These data would help understand the vocabulary acquisition process of the L2 speakers, which in turn would help teachers in choosing the suitable study materials and approach to teaching the vocabulary of English as a second language.

REFERENCE

- | Aitchison, J. (2003). *Words in the Mind. An Introduction to the Mental Lexicon*, 3rd ed. Oxford: Blackwell. | Ervin, S. M. (1961). Changes with age in the verbal determinants of word association. *American Journal of Psychology* 74: 361–72. | Fitzpatrick, T. (2007). Word association patterns: Unpacking the assumptions. *International Journal of Applied Linguistics* 17: 319–31. | McCarthy, M. (1990). *Vocabulary*. Oxford: Oxford University Press. | Meara, P. (2009). *Connected words: Word associations and second language vocabulary acquisition*. Amsterdam/ Philadelphia: John Benjamins. | Nation, I.S.P. (1990). *Teaching and learning vocabulary*. New York: Newbury House. | Schmitt, N. (2000). *Vocabulary in Language Teaching*. Cambridge: Cambridge University Press. | Singleton, D. (1999). *Exploring the Second Language Mental Lexicon*. Cambridge: Cambridge University Press.