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L2 Proficiency, Word Association and Interlingual Mediation among Tunisian M.A Students of English

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Abstract

This experimental psycholinguistic study tried to gain insight into the organization of bilinguals' L1 and L2 mental lexicons. It aimed to establish whether (a) adult native speakers of Tunisian Arabic's responses to L1 cue words are predictable and homogeneous, (b) individuals are consistent in their L1 and L2 word association profiles, (c) there is a relationship between L2 proficiency and the degree of proximity between individuals' L1 and L2 word association profiles, and (d) there is a relationship between L2 proficiency and the potential L1 interlingual mediation in the production of L2 associative responses. Participants were 40 Tunisian Master students of English. Qualitative and quantitative data collection methods were used; a proficiency test, two word association tests in L1 and L2, a lexical decision task, and a retrospective interview were used. Implications for Word Association (WA) research and L2 language learning and teaching are drawn from the findings.

Keywords: vocabulary, bilingualism, L2 proficiency, mental lexicon, word association behavior (profile), priming.

Introduction

Scholars distinguish between second language learning and bilingualism. According to Mitchell and Myles (2004, p. 34), for example, bilingualism refers to "learners who embark on the learning of an additional language, at least some years after they have started to acquire their first language" rather than learners who are simultaneously exposed to more than one language in their first years of life. As a common practice and despite this distinction, L2 research studies adopted the term *bilinguals* to address participants, even though all subjects were, at best, high-proficient second language learners. Going further, the term *bilinguals* have been sometimes extended and interchangeably used to refer to *multilinguals*, that is, those speaking more than two languages (de Angelis, 2007; Grosjean 1992). Thus, throughout this article, the broad definition for the term bilingualism is adopted.

Learning a second language can be affected by many factors. Among these, one can mention learners' age, motivation, earlier learning experiences, and type and amount of contact with the language (de Bot, Lowie, &Verspoor, 2005), that is to say, the amount of vocabulary that learners are exposed to. Despite its importance to L2 learning, vocabulary had been in the past an overlooked part of second language acquisition. Richards (1976) and Meara (1982a) are traditionally credited with bringing it back to the forefront in L2 learning. Read (1988), as well, adds support to the prominence of vocabulary in language teaching by stressing that "vocabulary is a component of language proficiency" (p.12).

It is the human ability to communicate that makes social life possible. Central to the communicative process stands the use of language and, in any language, knowing words is at the heart of communicative competence (Roux, 2013). It is worth-mentioning here that word knowledge is not only to learn labels for items or objects but also to learn the extension of words' meaning and to understand relations between the learned words. Put differently, it is, as Henriksen (1999) asserts, to build up a semantic network. Indeed, words can serve as "vehicles" to make language between people possible only when they are combined in a particular way. This explains why word knowledge is often described in terms of a lexical and a semantic level (Kroll, Michael, Tokowicz & Dufour, 2002). The lexical level consists of the words in a speaker's several languages; whereas, the semantic level consists of the underlying stored concepts (Kroll and Stewart, 1994).

Individuals know a vast number of words which can be retrieved in a fraction of a second. This suggests that "words cannot be heaped up randomly in mind" (Aitchison, 2003, p. 5). In other words, there must be some interesting ways of arranging and connecting them in the mind, so that, many can be stored, and yet, recalled almost instantaneously when required. Researchers (e.g. Henriksen, 1999; Nation, 2001) have distinguished various dimensions of lexical knowledge among which one can mention words' form, position, semantic networks, collocations, and associated words, etc. Concerning the lexico-semantic theory, Sökmen (1997) argues that "humans acquire words first and then, as the number of words increases, the mind is forced to set up systems which keep the words well-organized for retrieval" (p. 241). Put differently, as learners encounter new words, they access their background knowledge and form new connections between the new word and the already-known words, which by consequence, paves the way for learning to take place (ibid). Learning a language

entails, therefore, complex processes of learning, storing and accessing words within the mind.

At the higher levels of proficiency, as L2 learners develop a larger and larger vocabulary, the lexicon becomes more diverse and better connected. Although lexicography for L2 learners is a well-developed and influential part of research in Applied Linguistics (Meara, 2009), most of the research done is concerned with the linguistic features of words and very little of it is directed to answer a crucial question. This question was first posed by Meara (1982a, p. 10) and it was as following: 'what does a learner's mental lexicon look like?'(p. 29).

Central to this study is the concept of the mental lexicon. Scholars admit that little is actually known about it (Aitchison, 2003; McCarthy, 1990), which makes it difficult to arrive at a satisfying working definition of it. From the handful of definitions for the mental lexicon that has been proposed by linguists, one can infer that it refers to the collection of the representation of words in the mind. Put simply, the mental lexicon, as Richards and Schmidt (2002, p. 327) define it, is "a person [emphasis added]'s mental store of words, their meaning and associations". This definition is of significance to the present study as it first acknowledged the uniqueness of every individual's lexicon through the use of the word 'person', and second, recognized the multiple aspects of word knowledge by using "meaning and association".

It is paramount to note here that in the L2 research literature, researchers advocate a distinction between two separate, yet connected lexicons: the L1 and L2 mental lexicons. The diversity of researchers' opinions about them hints at the complexity of the relationship between both. Indeed, some have stressed the differences between the two (e.g., Meara, 1983), while others have argued for the similarities between the two (e.g., Wolter, 2001). Still, others have focused on the connections between the two (e.g., de Groot, 2002). In fact, the majority of studies show that there is a clear link between L1 an L2 mental lexicons of individual speakers (Channell, 1988). Although previous studies had found no substantial evidence that L1 and L2 mental lexicons are similarly organized (ibid), newer research is demonstrating that they are in fact structurally similar (Fitzpatrick, 2009; Wolter, 2001).

Psycholinguistic experiments have shown that the mental lexicon is well-structured. Despite the huge number of L1 and L2 vocabulary stored in the mental lexical, a person can effortlessly and instantaneously select and retrieve the appropriate and needed words to convey their message. This suggests that the mental lexicon is, as Aitchison (2003) asserts, "connected into semantic networks" (p. 43). Exploring the mental lexicon is used then as a tool to explain how words are stored, organized, accessed and retrieved in the mind (Aitchison, 2003; Zhang, 2009).

Aitchison (2003) lists four main methods for probing into the mental lexicon: 1) linguistics and linguistic corpora, 2) slips of the tongue and word searches, i.e., tip-of-the-tongue states, 3) speech disorders and brain scans and 4) psycholinguistic experiments. One of the methods of investigation for the present study is a psycholinguistic experiment and specifically word association tests. Schmitt (1998) asserts that word associations reflect the strongest mental connections between words in the mind. These lexico-semantic connections can be explored through word association tests whereby word association responses (patterns) produced by

speakers are believed by several researchers to provide valuable insight into the organization of the mental lexicon (Fitzpatrick &Izura, 2011).

Theoretical background

Only a few studies have turned to different directions in their word association research by attempting to investigate word association behavior of bilinguals as separate individuals rather than as a homogeneous group. Fitzpatrick's (2007) study has only recently initiated this line of research. Other researchers proved her findings to be valid such as Higginbotham (2010, 2014) and Racine (2011a, 2013). Fitzpatrick's studies, mainly those of 2007, 2009, and 2011 will, then, be presented and frequently referred to throughout this article. They represented an important leap forward in the L2 word association research and inspired the researcher to conduct this study.

Fitzpatrick (2007) sought to account for the inconsistency that pervaded L2 word association research by questioning the very foundations upon which it had been based. She started by criticizing the methodological procedures previously employed, namely the choice of cue words and the conventional categorization scheme used. More importantly, she argued against the "native-speaker norm" construct by questioning the assumption that native speakers' response patterns are homogenous. To this end, a group of participants (N=30) completed two-word association tests in English (L1). The elicited responses were classified according to Fitzpatrick (2006)'s new categorization scheme. She tried to develop the approach of analyzing word association responses from the perspective of the individual. Findings, in direct contrast to previous studies, showed that individuals exhibited various response "profile preferences", which were consistent across the two tests. Given these results, the validity of the concept "native speaker norm", against which L2 learners' responses had been used to be set, is questioned and the 'syntagmatic-paradigmatic shift' is proved to be inadequate for an understanding of response behavior of L1 speakers. Fitzpatrick (2007), thus, pioneered a new approach, individual profiling.

Fitzpatrick (2009) has attempted to compare an L2 learner's word association behavior not to native speakers', but to their own word association behavior in L1. In this study, Fitzpatrick investigated, also, the relationship between proficiency and the degree of proximity between individuals' L1 and L2 word association behavior. The results of her research proved that WA behavior of each individual is consistent, both "diachronically" in the L1 and also "synchronically" across two languages (L1 and L2). They showed also that as proficiency increases, an individual's L2 word association behavior becomes more like their L1 association behavior. The relationship between L2 speakers' two-word association profiles and their proficiency will be further investigated in the present study in the Tunisian context.

The next relevant paper to this study is that of Fitzpatrick and Izura (2011). First, they investigated the response types and response times of 24 native Spanish speakers and second language learners of English on two-word association tests. Then, participants completed an L1 lexical decision task through which the researchers tried to test the hypothesis that L2 responses to the L2 word association test were mediated through the L1. Their study also revealed that some response types were produced more often and faster than others and that participants were faster at giving responses to the L1 word association prompt words. Their

findings supported the Revised Hierarchical Model (Kroll & Stewart, 1994); among less proficient participants, an L1 priming effect from the L2 association task was found. This suggested that only "less" proficient students' L2 responses to the L2 word association task were mediated by their L1 translation equivalents. This study showed that this mediation was caused by lexical activation rather than conceptual activation. The present study follows a similar line of thought to Fitzpatrick's (2007, 2009) and to Fitzpatrick and Izura (2011). But, it differs from them in the sense that it is in a Tunisian context.

Scope and aim

This study is grounded within the field of psycholinguistics, particularly within experimental psycholinguistics. Experimental psycholinguistics is concerned with the inner mental processes occurring during language acquisition, comprehension, and production (Mitchel & Myles, 2004). The major concern of this study is to try to gain insight into the bilingual mental lexicons; how words are associated and processed in the mind. More specifically, it is about word association in L1 (Tunisian Arabic) and L2 (English) and L1 interlingual mediation. This research aims, first, at exploring whether bilinguals are predictable and homogeneous in their word association behavior. Then, it attempts to examine the relationship between L2 proficiency and the degree of proximity between participants' L1 and L2 word association profiles. Finally, it seeks to investigate the relationship between the level of students' L2 proficiency and the mediation of L2 responses through their L1 translation equivalents. Brief, the present study aspires to add to the field of experimental psycholinguistics and, more specifically, to word association and processing research and second language acquisition.

Rationale

The importance of the study stems from its experimental-psycholinguistic and cross-linguistic nature. This is because experimental psycholinguistics is an under-researched area in Tunisia and Tunisian Arabic is an under-researched language. Since most of the previous L2 word association research conducted word association tasks in English, Fitzpatrick (2007) warned that people "should be wary of concluding that word association behavior is independent of task language". That is to say until more research is done across different L1s and L2s, L2 word association researchers should be very careful with the generalization and interpretation of findings concerning different languages and their comparability. Thus, this study is intended to check whether Fitzpatrick's (2009, 2011) findings can be generalized to other speakers of other languages, particularly, to native speakers of Tunisian Arabic or not.

This study originates also from the growing need for language processing studies. It intends to understand how L2 words are processed since responses to word association tasks are assumed by several researchers to be representative of the underlying "lexico-semantic connections" (Fitzpatrick, 2007; Nissen and Henriksen, 2006). More specifically, the present study is meant to examine the relevance of the Revised Hierarchical Model (Kroll& Stewart, 1994) to Tunisian Arabic learners of English. This model suggests that as proficiency in the L2 increases, L2 words become less and less mediated through their L1 translation equivalents.

This research is relevant to vocabulary learning and teaching; which adds to its significance. The associations that learners make on WATs (word association tests) can be indicative of

the idiosyncratic nature of the mental lexicon and, by consequence, of style differences and preferences in vocabulary learning. Learners, therefore, can benefit from building on their preferences. As a learning strategy, for example, they can concentrate on developing them whenever they come across new words. It seems logical that teachers, as well, would better exploit these connections (revealed through WATs) for new vocabulary teaching. Indeed, knowing how words are connected in L2 learners' mental lexicon can be very helpful in developing more focused and efficient vocabulary teaching techniques and activities, which will facilitate vocabulary retention.

Problem

Word association research in L1 and L2 has aroused several controversies. This is because it has been traditionally perceived that L1 *adult* native speakers are homogenous in their word association behavior in that they basically produce paradigmatic responses. Additionally, the word association behavior of L2 learners has been set against native speakers'. Therefore, learners' tendency to produce a paradigmatic association in word association tests has been used as an indication for their proficiency.

These views are called into question since recent empirical studies (Fitzpatrick, 2007, 2009; Higginbotham, 2010, 2014; Racine, 2013) reveal that native speakers, and by consequence, L2 learners are heterogeneous in their response behavior, when grouped. They do not necessarily produce paradigmatic type of word associations. However, when regarded as individuals, they are consistent in their response behavior. In other words, they keep similar word association preferences in both L1 and L2. The degree of this similarity was found to depend on learners' L2 proficiency (Fitzpatrick, 2009; Fitzpatrick &Izura, 2011, Higginbotham, 2010).

One of the endeavors of the present study is, therefore, to investigate whether recent research findings concerning the idiosyncratic nature of word association behavior applies to MA students of English, whose L1 is Tunisian Arabic. This study seeks not only to gain insight into the organization of the mental lexicons, i.e., how L1 and L2 words are associated in the mind but also to reveal how L2 words are processed. Particularly, it seeks to assess the RHM (Revised Hierarchical Model)'s claims.

Research Questions and Hypotheses

The purpose of this article is to investigate the L1 and L2 mental lexicons of Tunisian students to find answers to the following questions:
Question 1: Do adult native speakers of Tunisian Arabic respond to L1 cue words in a predictable, paradigmatic-based and homogenous way?

Question 2: Are individuals consistent in their L1 and L2 word association behavior?

Question 3: Is there a relationship between L2 proficiency and word association behavior in L1 and L2?

Question 4: Are L2 word association responses mediated through the L1? If so, is L1 interlingual mediation dependent on L2 language proficiency?

The following hypotheses are tested in the current paper:

Hypothesis 1: Adult native speakers of Tunisian Arabic's responses to L1 cue words are unpredictable because they are not necessarily paradigmatic-based.
Hypothesis 2: Adult native speakers of Tunisian Arabic are not homogenous in their L1 response behavior.

Hypothesis 3: Individuals are consistent in their L1 and L2 word association behavior.

Hypothesis 4: The degree of proximity between individuals' L1 and L2 word association profiles is modulated by L2 proficiency.
Hypothesis 5: L2 word associations are mediated via L1, especially among the "less" proficient group of L2 learners.

Method

This study was carried out at the Higher Institute of Languages at Tunis (ISLT), in Tunisia. Three main languages coexist in Tunisia: Tunisian Arabic, French, and English. Tunisian Arabic (TA) is considered as the mother tongue of Tunisians as it is the spoken language used in everyday communication and it is not taught in formal settings. Students start to learn English at the 6th level of primary education (at the age of 11) until the baccalaureate (at the age of 18). Participants in the present study, after studying English in their primary and secondary education, chose English as a specialty in their graduate and post-graduate studies.

Participants

Participants were all non-native speakers of English who are learning it as a foreign language. Forty MA graduate students of English enrolled at ISLT served as subjects of this study. Thirty-five were females and five were males, with an age range of 22 to 26 years. The gender imbalance was initially disagreeable. However, since the focus of the study was on observing individuals' word association profiles and interlingual mediation in relation to proficiency, and not on contrasting the different associations given by males and females, it was considered to be acceptable. They are all proficient native speakers of Tunisian Arabic and each one's both parents are Tunisian speakers of Tunisian Arabic too.

MA students of English are chosen to be the participants of this study for two main reasons. First, it is to make sure that students' mental lexicons are active in both Tunisian Arabic and English. Second, it is because participants are supposed to have an above intermediate command of English as in word association lists the researcher excludes the 2000 high-frequency words. All of the subjects had a normal or corrected-to-normal vision and participated voluntarily in this experiment. None of them received monetary compensation for their participation.

Materials

LexTALE: (Lexical Test for Advanced Learners of English)

Several vocabulary tests have been developed over the years to measure L2 learners' proficiency levels. Schmitt (2000) gave a thorough review of these tests. Accordingly, in previous L2 studies, self-assessments or language history questionnaires were used as the

standard ways to assess proficiency (e.g., Dunn & Fox Tree, 2009). These tests, however, have been criticized for being subjective.

Lemhöfer and Broersma (2012) stressed that researchers should measure the proficiency level of their participants using an objective test. Several objective and valid proficiency tests were constructed. Among these, one can mention the TOEFL, the Quick Placement test (2001; QPT), the Vocabulary Levels Tests (VLT; Nation, 1990), and the Eurocentres Vocabulary Size Test (EVST; Meara & Jones, 1987, 1990). However, most of these tests are inaccessible to researchers. Thus, as a solution, Lemhöfer and Broersma (2012) developed an English vocabulary test labeled LexTALE as a tool to assess participants' language proficiency in psycholinguistic experiments.

LexTALE was adopted in the present study for several advantages. First, it is because it has been validated and shown to be a reliable, valid, and effective tool to assess proficiency in L2 by estimating vocabulary size. Indeed, in Lemhöfer and Broersma (2012), LexTALE scores have been validated by correlating them with word translation scores, self-ratings of proficiency and the scores of the Quick Placement Test.
Being short was the second reason behind the choice of LexTALE in this research. It takes solely 3 to 5 minutes to complete. LexTALE is characterized not only by being quick and practical but also by being available and easy. It can be easily implemented. It can be downloaded, or administered online at www.lextale.com (see Appendix Bfor lexTAE's detailed instructions and test items). Another asset of lexTALE is that the final score for each participant is automatically generated by the program.

Word association tasks

One of the main concerns of this study is to look at the arrangement of L2 words in the mental lexicon of learners at different proficiency levels. The most widely used method of investigation in this area is the word association test. In the current study, word association tests were free, written, and single. They were free because no response restrictions in terms of, for example, word-class or semantic relations were imposed on participants beforehand. The two-word association tests were administered in writing. The oral form of the word association test was avoided because when the stimulus words are presented orally to the subjects, several words can lead to ambiguity such as a 'foot' and food' which will divert the study from its intended purpose. Informants were asked to respond with one association per prompt word which makes it a single WAT. Prompt words in both word association tests were presented below each other in boxes with white spaces to the left and to the right of them. This design was thought to be better in terms of, first, allowing participants more freedom with where they write, which helped in the classification of the responses, and second, avoiding "chaining" (ibid). "Chaining" is defined by Nissen and Henriksen (2006) as triggering an association to a previous response association rather than the prompt word.

Early studies utilizing WATs have shown contemporary researchers that prompt words (PWs) need to be selected carefully, i.e., in a principled manner (Wolter, 2002; Fitzpatrick, 2006). Thus, in line with this, the researcher paid special attention to the word class and the frequency of stimuli in both word association lists. Higginbotham (2014) stated that for a list

to be representative of the English language, it ought to approximate the percentages of lemmas in each word class prepared by the BNC (The British National Corpus).

In line with this, each word association list is composed of 26 Nouns (52%), 11 verbs (22%), 9 adjectives (18%) and 4 adverbs (4%). Since the lists of prompt words contain, each, only 50 words the prepositions are not going to be included in this study. Most researchers (e.g. Wolter, 2001; Fitzpatrick, 2006, 2007, 2009) seemed to be in broad agreement that the frequency of prompt words affects the kind of responses that participants generate in word association tests. High-frequency words are believed to fail to probe into the mental lexicon of participants as their responses will be common as well as predictable (Fitzpatrick, 2007, 2011). They will produce very "stereotypical" responses, such as king-queen, or black-white. They are unhelpful in determining how an individual characteristically responds to cue words as the link between these words is so strong that it will "mask" any characteristic response preferences (Higginbotham, 2010). Therefore, the researchers matched the two-word association tests in terms of frequency to ensure comparability between them, and so, to eliminate frequency from influencing test results.

Word association test in English

English Prompt words were selected from the Academic Word List (AWL; Coxhead, 2000) for two major reasons. First, it is because that list excludes the 2000 highest frequency English word. Second, it is because it contains relatively few concrete nouns which are assumed to have a sort of effect on the kind of responses that learners generate in word association tests (Nissen & Henriksen, 2006). This List is composed of 10 sublists, which are in turn composed of *word families* that are alphabetically-organized. An example of a word family is *benefit, beneficial, beneficiary, beneficiaries, benefited, benefiting,* and *benefits*. In the present study, the researcher chose 5 words from each sublist. Each word was taken from a different word family. A total of 50 English words were selected (see Appendix C for the complete L2 WA test).

Word association test in Tunisian Arabic

The selected Tunisian-Arabic list of words used for the word association test matched the list of English words in terms of frequency and word class. L1 Prompt Words (see Appendix D for the complete L1 WAT) were taken from a list that excludes the highest 2000 Tunisian Arabic words. This list was provided by Karen Lynn McNeil, who along with MiledFaiza, created a corpus on Tunisian Arabic. Both led a project entitled "Tunisia. Org", which seeks to build a one-million-word corpus of Tunisian Spoken Arabic. In this corpus, available online at www.tunisiya.org, there are currently 1,990 texts, comprising 749,218 words (McNeil and Faiza, 2012).

Lexical decision task

In the lexical decision task, 72 items were used as stimuli. They were composed of 36 real Tunisian Arabic words and 36 invented words. Real words were, in turn, divided into 18 primed words and 18 non-primed words. Primed words were the translation equivalents of 18 of the prompt words used as cues in the English word association task (For a list of all items see Appendix E). Therefore, to make sure that English words have only one translation

equivalent in different Tunisian Arabic dialects, the researcher asked 5 students from Tunis, Sfax, Monastir, Kef, Tataouin to translate a list of 30 English words to their corresponding dialect (see appendix F). Only English words that have, each, the same Tunisian Arabic translation equivalents across dialects were kept.

Non-primed words were not used as cues in the Tunisian Arabic word association task and were not translation equivalents of any of the prompt words in the English word association task either. The invented words were created by changing one letter from real Tunisian Arabic words in a way that the letter string remains orthographically and phonologically possible. Through the use of *Psychopy2 software*, the Lexical Decision Task was carried out and gave a set of recognition times (response times) for each subject for primed words, nonprime words, and non-words.

Full retrospective interview

Participants were asked about the responses, particularly, the ambiguous or polysemous responses they had given in the two-word association tests. This was meant to help the researcher be as precise as possible in the classification of responses using the "categories-of-response framework" adopted from Fitzpatrick's (2009) study (see Appendix A).

Data collection procedure

Participants were tested individually. They took first the online proficiency test. Their scores were sent automatically to the researcher's email account. Informants, then, were asked to fill in, as quickly as possible, the Tunisian-Arabic WAT (see Appendix D) followed by the English word association test (see Appendix C) on hard copies. The experimenter asked them not to change the first word that crossed their minds after reading each stimulus, not to re-read the word once they had passed through it, and to read words one by one to prevent "chaining", that is, getting an associative response to the previous or following stimulus word rather than to the word at hands.

Immediately after the completion of the word association task in English, participants were given a lexical decision task in L1 (Tunisian Arabic). It was presented to them on a PC running Psychopy 2 software version 1.79.00. Instructions for the experiment appeared on the screen in English and were further explained orally by the researcher in Tunisian Arabic. It is worthy to note that none of the words appearing in the instructions is a translation equivalent of the words in the lexical decision task. The words appeared in the same order to all participants and each remained on the screen until the participant made a response. Informants were asked to respond as fast and as accurately as possible by clicking on the right cursor on the keyboard if the word exists in Tunisian Arabic (real word) and on the left cursor if it does not (invented word).

Meanwhile, the researcher was busy classifying the answers and highlighting the responses which were, on a cursory inspection, difficult to classify. As soon as the subject had finished the lexical decision task, the experimenter conducted a full retrospective interview to help with the classification. She asked them for some clarifications to facilitate the classification, particularly of ambiguous responses.

Data analysis procedure

As participants in this study are advanced learners, it was expected that they would know almost all the words in the word association lists. Despite this, the researcher, before starting the classification of informants' responses in both L1 and L2, followed Higginbotham (2010) by establishing a "completion threshold" of the WATs. In other words, she decided to eliminate from the study students whose erratic and blank associations would total more than 50%. This was meant to permit a fair comparison between each student's two profiles. In fact, it was felt that as Higginbotham (2010) assumed, an individual profile formed of less than 50% (corresponds to 25 in this study) prompt words and their corresponding responses would not genuinely represent how the participant actually connects words. As a result, another participant, a fifth one, was eliminated from this study because he, unsatisfactorily, filled in both of the L1 and L2 word association tests. The average completion rates of the prompt word lists in L1 and L2 are successively 99.47 % and 99.06 %.

Items that generated very strong primary responses (more than 50% of the given responses) were rejected. Such responses, as Higginbotham (2010, p. 382) puts it, "relate to the associative strength of the word itself rather than an individual's associative preferences". One prompt word was rejected from each word association test because each one triggered a strong primary response. None of the left 98 words in both L1 and L2 word association tests gave high primary responses. So, the high number of various possible responses to every single prompt word can be indicative of the "heterogeneity of the associative domain" (Zareva, 2007).

The "traditional classification system" that had been used in most L1 and L2 word association research is the classification of word association responses into either: paradigmatic, syntagmatic, or clang/phonological responses (Wolter, 2001; Nissen and Henriksen, 2006). Fitzpatrick (2006) identified several difficulties and inconsistencies that result from using the above-mentioned "conventional three-way classification" of association responses. It follows, therefore, that the researcher of the current study opted for the use of Fitzpatrick's (2009) newly proposed classification system (see Appendix A) to categorize all participants' L1 and L2 responses during the full retrospective interview.

Following Fitzpatrick's (2009) categorization scheme (see Appendix A). The seventy sets of data (2 sets of data per participant) comprising each 49 cue-response pairs were processed by allocating each response to a response-type category. Having processed the data in this way, a response profile was produced for each data set. Put differently, this categorization process resulted in two profiles for each participant.

Results and Discussion

The predictability and homogeneity of responses to L1 word association test

L1 word association research had long been driven by the belief that adult native speakers' responses to L1 word association tasks are predictable (i.e., paradigmatic) and homogeneous. Through this study, the researcher aspires first to check whether this is the case for adult

native speakers of Tunisian Arabic. To answer the first research question, responses, given by the 35 participants in the L1 WA test, were analyzed qualitatively and quantitatively. Their distribution across Fitzpatrick's (2009) "more transparent" and "user-friendly" classification of responses (see Appendix A) is presented in Table 1.

Table 1

Distribution of L1 responses across Fitzpatrick's (2009) main categories of classification

Category	Number of responses (%)
Position-based responses	924 (53, 87%)
Meaning-based responses	743 (43.32%)
Form-based responses	39(2.27%)
Erratic responses	9 (.52%)

As can be seen from table 1, native speakers, in this case, Tunisian Arabic speakers, produce more position-based responses than meaning-based responses. It is worth noting that, although not synonymous, the meaning-based and position-based categories are viewed in word association research literature as broadly overlapping the paradigmatic and syntagmatic categories. These last two categories of response had long been commonly used in earlier word association studies by L1 and L2 researchers (e.g. Wolter, 2001). Thus, some comparisons can be made between the results of previous studies and this one.

Native speakers of Tunisian Arabic, by consequence, tend to produce more syntagmatic responses than paradigmatic responses. The predominance of L1 syntagmatic responses in this study is at variance with previous studies such as that of Wolter (2001). Indeed, this goes in contrast with the unquestionably-accepted assumption in the L1 word association research literature about L1 adult speakers as producing basically paradigmatic responses. The present results, however, support some recent studies (e.g. Fitzpatrick, 2006, 2007; Nissen & Henriksen, 2006, etc.), which, also, produced findings that directly contradict the previous assumption.

The first hypothesis related to question 1, which stated that adult native speakers of Tunisian Arabic's responses to L1 cue words are unpredictable because they are not necessarily paradigmatic-based, is then confirmed. The second hypothesis under this question suggested that adult native speakers of Tunisian Arabic are not homogeneous in their L1 response behavior. To examine this hypothesis, participants' L1 word association profiles were scrutinized. Table 2 gives an overview of the thirty-five-word association profiles in Tunisian Arabic (L1).

Table 2

Number of responses in each subcategory for the L1 word association test

Categories	Subcategory	Min.	Max.	Mean (SD)
Meaning-based association	Defining synonyms	0	7	3.4 (3.81)
	Specific synonyms	0	7	2.5 (3.5)
	Lexical set/ context relationship	0	31	10.57 (7.55)
	Conceptual association	0	27	7.25(6.17)
Position-based association	Consecutive xy collocation	3	40	17.8(10.76)
	Consecutive yx collocation	0	8	2.82(2.06)
	Other collocational association	0	15	5.6 (3.68)
Form-based association	Change of affix	0	3	.57 (.81)
	Similar form only	0	3	.22 (.59)
Others	Erratic association	0	1	.08 (.28)
	Blank association	0	1	.2 (.40)

On average, the most popular response type is the "consecutive xy collocation" (e.g. ثْنِيَّهْ<أُقْرَبْ, نَقْرَى<نُدْخُلْ), which is one of the position-based, or syntagmatic-type of association categories. The "lexical set/context relationship" (e.g. مَحلُول<مْسَكِّر) and the "conceptual association" (e.g. وْلاَدْ<عْرْكَة) type of responses are also popular. These are followed by "defining synonyms" (e.g. فصَع<هرَبْ) and "other collocational association" (e.g. البيئة<مُحَافظَة) response types. The maximum number of responses in each of the rest of the categories did not exceed 10.

There are several cases where individual differences are huge. Indeed, in several response categories (e.g. "defining synonym", "lexical set/context relationship", "conceptual association", "consecutive xy collocation"), the minimum and maximum figures presented in Table 5 clearly show variation in response profiles, that is, in response behavior of participants in Tunisian Arabic (L1). For example, one participant gave 40 "consecutive xy association"; whereas another gave only 3. The high standard deviations in several response categories (e.g. "consecutive xy collocation", "lexical set/ context relationship", etc.) further indicate that individual responses vary widely from the mean. The second hypothesis related to the first question, which stated that individuals are not homogenous in their L1 response behavior, is then accepted.

By and large, the results of the present study support Fitzpatrick's (2007) and Higginbotham's (2010) conclusions that native speakers respond neither in predictable patterns, nor in a homogeneous way. It follows that a more useful line of enquiry would be to adopt their view of L2 learners not as a homogenous group, but as individuals. More importantly, one can assume that the variety of responses given by this sample group attests

to the "idiosyncratic nature" of the mental lexicon. So, based on this and on Fitzpatrick's (2007) study revealed that native speakers do have individual response profile preferences in their mother tongue, the researcher is going to proceed to answer the next research question.

Comparison between L1 and L2 word association behavior

To answer the second research question which asked whether individuals are consistent in their L1 and L2 word association behavior, the researcher calculated the "degree of proximity" between Tunisian Arabic and English word association profiles. As defined by Fitzpatrick (2007), "proximity refers to the Euclidean distance, which is calculated by squaring the difference between each subcategory pair in the data set, and then taking the square root of the sum of the squared differences". If we, for example, do this calculation for the data shown in Table 3, we find that the Euclidean distance between that subject's English and Tunisian-Arabic data is 10.29. This is actually below the mean of 14.33 for within-subject proximity (see Table 3), which demonstrates that this participant's L2 and L1 response profiles are very close, that is, very similar to each other. It is worth mentioning that two identical profiles would score a proximity distance of 0. In this study, the lowest-found within-subject proximity distance was 6. 92.

The researcher first made this calculation for the 35 within-subject data pairs, that is, the English and the Tunisian Arabic profiles for each informant. She, then, calculated the degree of proximity for the 1190 between-subject data pairs, that is, each participant's L2 (English) profile with every other participant's L1 (Tunisian Arabic) profile. The experimenter assigned a proximity score to each data pairs and these scores are summarized in Table 3. It is worth noting that the "within-subject proximity scores" were calculated to determine how similar each individual's Tunisian Arabic (L1) association profile to their English (L2) association profile. The "between-subject" proximity scores, however, were used to determine how close each subject's English profile to every other subject's Tunisian Arabic profiles.

Table3

Proximity scores for data pairs

	n	**Mean**	**SD**
Within-subject proximity	35	14.33	4.25
Between-subject proximity	1190	24.43	6.67

The mean scores in Table 3 show that the within-subject profiles are closer than the between-subject profiles. To support these findings, the researcher made a comparison between the two sets of proximity scores by using the independent T-test analysis. The resulting t-value was $t = 4.899$ (df 1223, $p < .001$). This indicates that the distance between an individual's English and Tunisian Arabic profiles is significantly smaller than the mean distance between their English and the other informants' Tunisian Arabic profiles. Put differently, this shows that an individual's L2 profile is indeed more similar to their own L1 profile than to anyone else's L1 profile. This demonstrates that individuals are consistent in their L1 and L2 word association behavior, and so, have individual response preferences.

So far, the distance between each participant's L1 and L2 word association profiles has been judged using the Euclidean distance. To confirm the previously-reached findings, the researcher employed another more widely used statistical measure, the correlation coefficient. As Higginbotham (2010, 2014) proposed, a correlation coefficient of over .8 can be considered to indicate very close word association profiles in L1 and L2, a correlation of between .7 and .8 can be considered to show close word association profiles in L1 and L2, and a correlation of between .6 and .7 can be considered to hint at vaguely similar word association profiles in L1 and L2. Lastly, correlations under .6 can be considered as showing dissimilar word association profiles. The application of these measures showed that many of the individuals had a very high correlation between the kinds of responses they gave in L1 and L2 word association tests. Indeed, the majority (77.14%) of participants in the present study, 27 out of 35, had either very close or close word association profiles in L1 (Tunisian Arabic) and L2 (English).

The correlations between participants' L1 and L2 word association profiles ranged from .59 to .95. To better understand what these individual profiles look like, two detailed individual profiles, corresponding to very close profiles and dissimilar profiles were selected to be consecutively presented in Figures 1 and 2. The first student was selected with two very close profiles with the highest correlation of .95. This high correlation indicates that, as can be seen in Figure 1, the participant gave almost the same type of responses to both L1 and L2 prompt words. The majority of this student's responses, both in L1 and L2, were from the "lexical set/ context relationship" associations (18 in L1 profile and 16 in L2 profile). One can easily note that this individual gave almost the same type of responses to both L1 and L2 cue words.

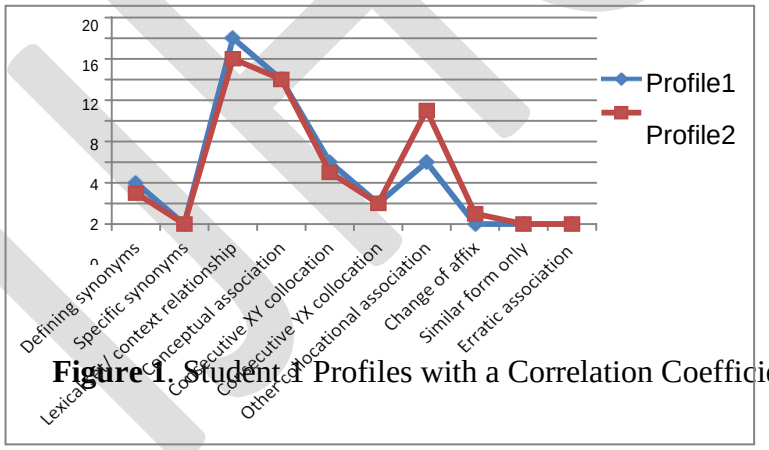

Figure 1. Student 1 Profiles with a Correlation Coefficient of .95

Figure 2 shows the distribution of the response categories of the participant with the lowest correlation (.59) between his L1 and L2 association profiles. Despite this low correlation, the response category that dominates this subject's L1 word association profile; "conceptual association", dominates again his L2 word association profile.

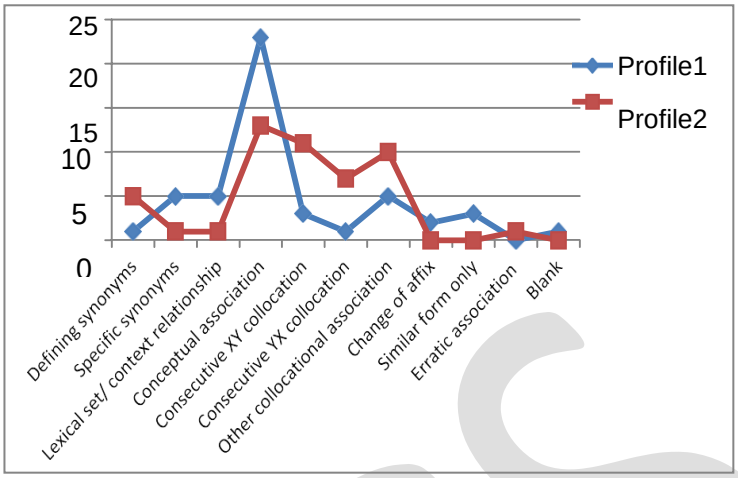

Figure 2. Student 2 Profiles with a Correlation Coefficient of .59

The analysis of the detailed individual profiles showed that there exists a variety of student response profile types or, as Fitzpatrick named it, "individual response profile preferences". Some individuals gave a lot of "conceptual association" responses; whereas others gave mainly "consecutive XY collocation" or "other collocational association" . This diversity in student response profiles further affirms the second hypothesis under the first research question which states that individuals are not homogeneous in their word association behavior. It is worthy to note, however, that even though there is variation within the group, persons tend to have the same response preferences in L1 and L2. Put differently, individuals' L1 and L2 word association behavior is "internally consistent". 82,85 % of participants, that is 29 participants out of 35 responded to L1 and L2 WA words with the same dominant category. Only 6 participants did not have the same preferred response category in L1 and L2.

Because of these results, the hypothesis under the second research question, which states that individuals are consistent in their L1 and L2 word association behavior, is confirmed. The findings of this study consolidate Fitzpatrick's (2007), Higginbotham's (2010, 2014), and Racine's (2013) findings about the consistency of individuals' L1 and L2 word association behavior. This similarity is assumed by Fitzpatrick (2009) to be influenced by proficiency, which leads us neatly into a discussion of the third research question.

L2 proficiency and the degree of proximity between L1 and L2 word association profiles

As a first step to answer the third research question which asked whether there is a relationship between L2 proficiency and word association behavior in L1 and L2, participants' proficiency was measured using lexTALE (Lexical Test for Advanced Learners of English) and each participant was accorded a score. As a group, informants had an upper-intermediate proficiency level, with a mean score of 74.16 % (range: 57.5%-91.25%).

Then, to tackle this research question, the correlation between proficiency scores and within-subject proximity scores is calculated and it is rs = .133 ($p < .05$). This correlation is neither strong, nor even significant. Thus, one can confidently reject the hypothesis under this

question which suggested that the degree of proximity between individuals' L1 and L2 word association profiles is modulated by L2 proficiency. Additionally, the results stand on the opposite side of previous results provided by Fitzpatrick (2009) where the similarity between participants'L1 and L2 word association behavior is modulated by their proficiency level.

There exist different degrees of similarity between L1 and L2 word association profiles of ISLT English students. Such findings are not modulated by L2 proficiency levels. Keefe (1979) shows that the way individuals learn in general depends on a somewhat "mysterious link" between personality and cognition, this link is referred to as cognitive style. In line with this, it seems plausible to assume that the differences in the degree of similarity between L1 and L2 word association behaviors of learners can be possibly explained by their differences in learning styles, cognitive styles, or personality traits. Whether this is the case or not remains to be explored in future research.

L2 proficiency and L1 mediation in L2 word associations

Under this section, the researcher wanted to explore whether there is L1 interlingual mediation during L2 word associations and whether this potential L1 mediation is dependent on L2 proficiency. To this end, a lexical decision task was administered in the native language (Tunisian Arabic) of unbalanced bilingual Tunisian Arabic-English speakers. As has been mentioned in the data analysis section, students' responses and reaction times (RT) for primed words, non-primed words, and non-words were recorded and some modifications were added to them. The researcher took two other procedures to prepare RT data for analysis. First, only correct reactions were considered, that is, reaction times on error trials were removed.

Erroneous responses were observed on 8.3 % of the trials. This step was important because not all priming trials result in valid RTs and if there are indications (i.e., error trials) that participants did not fulfill the instructions, it might be legitimate and wise to discard their data from analyses. Second, the researcher did some "basic-cleaning" by removing outlying data. To remove the impact of outliers within each participant's data set, the overall mean and standard deviation of each participant's word recognition time were computed from the set of retained correct responses. Then, response times two standard deviations above or below each participant's mean were considered outliers and discarded from the analyses accounting for an additional 4.95% .In total, 13.25 % of the remaining data were excluded.

Recognition times were, then, examined for the group as a whole. Mean response times, standard deviations and error rates for primed, non-primed, and non-words are displayed in Table 4. As can be seen from the table, there are differences between response latencies to primed words, non-primed words and non-words. The rejection of non-words took the participants more time than the recognition of either primed or non-primed words. It is worth noting that error rates were the highest for non-primed (pseudo-words) words, which can be explained by the confusion and hesitation they can cause.

Table 4

Mean Reaction Times (RTs, in Milliseconds) with Standard Deviations and Error Rates (%Error) for Words Used

Items used in the lexical decision task

Condition	RT	SD	% error
Primed	1025.02	294. 88	1.34
Non-primed	1062.36	412. 52	1.47
Non-words	1392	280.64	2.13

The group of participants was faster at recognizing primed words, which were the translation equivalents of some words used in the previously completed English word association task. This can be an indication that the Tunisian Arabic (L1) words were activated during the (L2) English WAT. To take the analysis a step further and find out if L2 responses were really mediated by their stimuli's L1 translation equivalents, the researcher tried to look for priming effects. To this end, the researcher carried out first a 2 (high vs. low proficiency; a between-subjects factor) x 2 (primed vs. non-primed; a within-subjects factor) ANOVA. A main priming effect was detected, $F(1, 33) = 5.99$, $MSe = 1344$, $p < .05$.

Since this study aimed primarily at focusing on the relationship between L1 mediation and L2 proficiency level, the researcher did two further analyses. Participants (N=35) were first divided into two smaller groups according to their lexTALE scores, i.e., according to their proficiency level. Those who scored higher than the group mean score of 74.16 % were sorted to the "more" proficient group (n=22); whereas those whose lexTALE scores were below the group mean score of 74.16 % were sorted to the "less" proficient group (n=13). After dividing participants into two groups, two t-test comparisons between primed and non-primed items were carried out for each group. For the "more" proficient group, non-significant differences were found between primed and non-primed conditions ($p= .390$). Conversely, the difference between the primed and non-primed words was significant for participants belonging to the "less" proficient group, $t(13)= 6.32$, $p < .05$.

The hypothesis under the fourth question, which states that L2 word associations are mediated by the L1 especially among the "less" proficient learners, is confirmed. It is supported by the priming effect found among the "less" proficient group for the items that were L1 translation equivalents of L2 prompt words. These results are in line with Fitzpatrick and Izura (2011) results and support Kroll and Stewart's 1994 Revised Hierarchical Model' s predictions concerning the developmental aspect of the lexico-semantic connections existing in the minds of bilinguals. According to this model, L1 mediation is assumed to exist until the bilingual becomes very proficient in L2. Only then can learners access the meaning of L2 words directly. Put differently, with increasing proficiency the "lexically-mediated process"

decreases and the connections between L2 words and concepts are strengthened. In short, this study reveals that there is a relationship between the L2 proficiency level and the amount of L1 mediation that occurs during bilinguals' L2 processing.

Conclusion

The importance of vocabulary in L2 learning and the particularity of the setting of the study, Tunisian, were both motives behind conducting this thesis. The purpose of the present study was to probe into the mental lexicon of ISLT MA students of English. It was meant to further explore the notion that WA tests can assist in understanding how words are connected in the mental lexicon of individuals. This study adds to a growing body of research which suggests that despite the universality of language, the mental lexicon of individuals is idiosyncratic in nature. The most important findings of this study are (1) ISLT MA students of English, native speakers of Tunisian Arabic, cannot be regarded as a homogeneous group whose L1 word association behavior is predictable, i.e., mainly paradigmatic, (2) when considered as individuals, however, they seem to have "preferred" response profiles in L1 and L2. Put consistently, they respond to cue words in a consistent way in both languages; native and foreign, (3) the degree of proximity between participants' L1 and L2 word association profiles is independent of their proficiency level, and (4) L2 associations are mediated via their L1 translation equivalents among the "less" proficient students. This L2 mediation depends on students' proficiency level, which supports the Revised Hierarchical Model of Kroll and Stewart (1994).

This study strived at documenting Tunisian Arabic as far as word association and interlingual mediation are concerned. It longs to appeal to future Tunisian researchers into the field of experimental psycholinguistics, in general, and word association, in particular, as research. By this, it aspires at helping bridge the gap between theory and practice, that is, to relate research, teaching and learning, and to make the process of teaching vocabulary highly beneficial to L2 students. Vocabulary knowledge is at the heart of language learning. It is a complex phenomenon. So, knowing more about how words are associated, stored and processed and how to capture them reliably will inevitably lead researchers to refine their views about the mental lexicon as an organized network. After knowing L2 word association preferences that learners have, teachers, material writers and researchers can find ways to help strengthen these mental links by developing more focused and diversified vocabulary teaching techniques. This research contributed to the domains of word association and processing not only through investigating the most researched language which is English but also through exploring an under-researched language which is Tunisian Arabic. In fact, as far as research on word association behavior is concerned, it is the first of its kind in the Tunisian context. One of the strengths of this study is that it pioneered the use of a native and Tunisian Arabic corpus.

References

Aichison, J. (2003). Words in the mind: An introduction to the mental lexicon (3rd ed.). Oxford: Blackwell.

de Angelis, G. (2007). Third or additional language acquisition. Clevedon; Buffalo: Multilingual Matters.

Channell, J. (1988). Psycholinguistic considerations in the study of L2 vocabulary acquisition. In R. Carter & M. McCarthy (Eds.), Vocabulary and language teaching (pp. 83-96). London: Longman.

Coxhead, A. (2000). A new academic word list. TESOL Quarterly, 34(2), 213-38.

de Bot, K., Lowie, W., & Verspoor, M. (2005). Second Language Acquisition: an advanced resource book.(1st ed.). Oxon: Routledge.

Dunn, A. L., & Fox Tree, J. E. (2009). A quick, gradient bilingual dominance scale. Bilingualism: Language and Cognition, 12(3), 273-289.

Fitzpatrick, T. (2006). Habits and rabbits: Word associations and the L2 lexicon. EUROSLA Yearbook 2006, 6(2), 121–45.

Fitzpatrick, T. (2007). Word association patterns: Unpacking the assumptions. International Journal of Applied Linguistics, 17(2), 319–31.

Fitzpatrick, T. (2009). Word association profiles in a 1st and 2nd language. In T. Fitzpatrick and A. Barfield (Eds.), Lexical processing in second language learners, 38-52. Bristol. Multilingual Matters.

Fitzpatrick, T., & Izura, C. (2011). Word association in L1 and L2: An exploratory study of response types, response times, and interlingual mediation. Studies in Second Language Acquisition, 33(3), 373-389.

Grosjean, F. (1992). Another view of bilingualism. In Richard Jackson Harris (Ed.), Cognitive processing in bilinguals (pp. 51–61). Amsterdam: North-Holland.

de Groot, A. M. B. (2002). Lexical representation and lexical processing in the L2 user. In V. J. Cook (Ed.), Second language acquisition I: Portraits of the L2 user (pp. 32-63). Clevedon: Multilingual Matters.

Henriksen, B. (1999). Three dimensions of vocabulary development. Studies in Second Language Acquisition, 21(5), 303–317.

Higginbotham, G. M. (2010). Individual learner profiles from word association tests: The effect of word frequency. System, 38(3), 379–90.

Higginbotham, G. M. (2014). Individual profiling of second language learners through word association. (Unpublished PhD thesis). Swansea University, Wales, United Kingdom.

Keefe, J.W. (1979). Student learning styles: Diagnosing and prescribing programs. Reston, VA: National Association of Secondary School Principals.

Kroll, J. F., & Stewart, E. (1994). Category interference in translation and picture naming: Evidence for asymmetric connections between bilingual memory representations. Journal of Memory and Language , 33(3), 149 –174.

Kroll, J. F., Michael, E., Tokowicz, N., & Dufour, R. (2002). The development of lexical fluency in a second language. Second Language Research, 18(2), 137–171.

Lemhöfer, K., & Broersma, M. (2012). Introducing LexTALE: A quick and valid lexical test for advanced learners of English. Behaviour Research Methods, 44(2), 325-343.

McCarthy M. (1990). Lexical Relations. In Vocabulary (pp. 12-33). Reino Unido: Oxford University Press.

McNeil, K., & Faiza, M. (2012). Corpus of Tunisian Arabic: Design and progress.

Meara, P.M. (1982a). Vocabulary in a second language (Vol. 1). Specialised Bibliography 4, London: CILT.

Meara, P.M. (1983) Word Associations in a foreign language. Nottingham Linguistic

Meara, P. M. (2009). Connected words: Word associations and second language vocabulary acquisition. Amsterdam/ Philadelphia: John Benjamins.

Meara, P., & Jones, G. (1987). Test of vocabulary size in English as a foreign language. Polyglot, 8 (1), 1-40.

Meara, P., & Jones, G. (1990). Eurocentres Vocabulary Size Test (version E1.1/K10,MSDOS). Zurich: Eurocentres Learning Service.

Mitchell, R., & Myles, F. 2004. Second language learning theories. (2nd ed.). London: Arnold.

Nation, I.S.P. (1990). Teaching and learning vocabulary. New York: Newbury House.

Nation, I. S. P. (2001). Learning vocabulary in another language. Cambridge: Cambridge University Press.

Nissen , H. B., & Henriksen, B. (2006). Word class influence on word association test results. International Journal of Applied Linguistics 16, 389–407.

Racine, J. P. (2013). The history and future of word association research. Dokkyo Journal of Language Learning and Teaching, 1, 55-73.

Read, J. (1988). Measuring the vocabulary knowledge of second language learners. RELC Journal, 19, 12-25.

Richards, J.C. (1976). The role of vocabulary teaching. TESOL Quarterly, 10, 77-89.

Richard, J.C., & Schmidt, R. (Eds.). (2002). Longman Dictionary of Language Teaching and Applied Linguistics (3rd ed.). London: Longman.

Roux, W, P. (2013). Words in the mind: Exploring the relationship between word association and lexical development. Polyglossia, 24, 80-9.

Schmitt, N. (1998). Quantifying word association responses: What is native-like? System, 26, 389–401.

Schmitt, N. (2000). Vocabulary in Language Teaching. Cambridge: Cambridge University Press.

Sökmen, A.J. (1997). Current trends in teaching second language vocabulary. In N. Schmitt and M. McCarthy (Eds.), Vocabulary: description, acquisition and pedagogy. Cambridge University Press.

Wolter, B. (2001). Comparing the L1 and L2 mental lexicon. Studies in Second Language Acquisition,23 (2), 41–69.

Wolter, B. (2002). Assessing proficiency through word associations: is there still hope? System, 30(3), 315–29.

Zareva, A. (2007). Structure of the second language mental lexicon: How does it compare to native speaker's lexical organization? Second Language Research, 23(4), 123.

Zhang, C. (2009). Mental lexicon and English vocabulary teaching. US-China Foreign Language, 7(3), 42-45.