Evaluating the Issue of L1 Lexicalization Through Two (Non)-Interventionist Approaches: Glossing and Lexical Inferencing

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Abstract

This empirical study reports on the issue of L1 lexicalization. Participants were 74 juniors at the Islamic Azad University, Roudehen Branch. The investigation pursued (i) the pedagogical impact of the provided treatments (ii) the psycholinguistic importance of the issue of L1 lexicalization. The results of the independent t-test indicated a significant difference between the two groups dealing with both sets of words. The paired t-test analysis demonstrated a significant difference between the gain scores in favour of lexicalized items in the interventionist group. However, no significant difference was found with respect to the gain scores in the non-interventionist group.

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1. Introduction

It may be worthwhile to consider the fact that the previous decades were funded with a considerable augmentation of the research in the field of L2 lexical acquisition. Yet, what should be technically noticed is that the bulk of the research projects conducted in this field is devoted to the analysis of the lexical development in L1 and L2 in a distinct manner without providing an overarching psycholinguistic perspective. Such scantiness fragmented the field to studies designating for instance, vocabulary size, passive/active facets of word knowledge, vocabulary instruction and vocabulary learning strategies, stated by Augustin Liach (2011). This being the case, the researchers were motivated to try at least to unravel the enigma of bilingual mental lexicon and the psycholinguistic underlying mechanisms involved in second language acquisition by uncovering the overarching issue of L1 lexicalization from a pedagogical and psycholinguistic perspective with respect to two different empirical situations.

In order to evaluate the significance of the issue of L1 lexicalization as the major cornerstone of this research proposal, it seems beneficial to have a lucid perspective regarding the distinctions pertinent to L1 and L2 lexical acquisition. In first language acquisition, the child becomes exposed to both word form and its meaning.
simultaneously which leads to an effortless and spontaneous acquisition of the word. However, the adult language learner becomes involved in a different process referred to as the hybrid-entry stage stated by Jiang (2000) due to the fact that an L2 entry state at this level is an amalgamation of L2 linguistic and conceptual information and the syntax and semantic system resembling the learner’s L1. From a processing perspective, such a stage could be termed as L1 Lemma mediation stage due to the intermediary role it plays as a result of the act of extrapolation from L2 to L1. The hybrid entry stage encompassing the process linking a word in L2 to its translation in L1 is pivotal in differentiating L1 and L2 lexical acquisition and as such it is directly related to the major theme of this research referred to as L1 lexicalization. This process makes L2 lexical acquisition possible at the intermediate level and prolongs until the particular information relevant to an L2 word is stabilized in its entry as a result of which the L1 translation is discarded (Jiang, 2000). However, it should be noticed that “the transition from mapping to existing meanings to mapping to new concepts may not occur for a majority of words, and as a result, L1 Lemma mediation often becomes the steady state of lexical performance in advanced learners” (Jiang, 2004, p. 419).

Brinton and Traugott (2005) elaborated on the issue of lexicalization as a dynamic process of word formation encompassing compounding, conversion and derivation which results in the emergence of novel lexical items. Accordingly, this dynamic process may lead to the construction of nonce forms. These forms may or may not be conventionally accepted by the other speakers of the community through a process referred to as institutionalization in which a widely used form becomes established as a norm. Several terms such as “routinization,” “petrification,” and “canonization” were coined in the literature to elaborate on the process of creating institutionalized or “frozen” forms (Brinton and Traugott, 2005).

This study is devoted to the analysis of the issue of L1 lexicalization in two empirical situations as L1 glossing and inferencing. The pedagogical intervention as L1 glossing in this study could be regarded as being justifiable in terms of the idea of consciousness as intention proposed by Schmitt (2001) in which paying attention through explicit teaching may be required to help the learners notice the non-salient cues or complex ones which are considered to be complicated due to the differences existing between the learners’ L1 and L2. As it is evident the non-lexicalized vocabularies are considered to be good exemplars for such a case.

The study conducted by Liu (2008) regarding the effect of L1 use on L2 vocabulary teaching demonstrated the fact that the proper application of L1 can effectively improve the memorization of new words. In the same way, the result of the study conducted by Latsanyphone and Bouangeune (2009) regarding non-proficient language learners at the National University of Laos in Japan denoted the idea that the application of the learners’ mother tongue (L1) as an explicit vocabulary teaching method enhanced the learners’ retention of novel vocabulary items both in isolation and in context which could have pedagogical implications for English professionals. As was already mentioned, the participants in the non-interventionist group in this study were involved in the process of inferring the meaning of the target words without being provided with any explicit intervention.

Among several studies pertinent to inferencing, the one conducted by Paribakht (2005) is directly related to lexicalization as the major theme of this study. Paribakht treated the issue of lexicalization in the learners’ L1 with respect to their success in inferring the lexicalized and non-lexicalized patterns in reading text through incidental learning. The results of her study presented considerable success in favor of lexicalized words; however, little difference was reported with regard to learning. The obtained findings by Paribakht (2005) revealed the fact that non-lexicalized words may cause a noticeable obstacle in lexical inferencing since the learners were almost three times more successful in guessing the meaning of lexicalized words than that of non-lexicalized ones in both pre-inferencing and post-inferencing administrations. She clearly stated the idea that inferencing alone does not provide the learners with the opportunity to acquire novel words.
1.1. Research questions

The study set out to pinpoint the effect of the issue of L1 lexicalization in terms of the following questions:
1) Is there any significant difference between the interventionist and non-interventionist groups dealing with L2 words lexicalized and non-lexicalized in Persian?
2) How does L1 glossing in the form of direct contrasting affect the L2 learners’ acquisition of lexicalized and non-lexicalized words in reference to the difference between the two sets in the interventionist group?
3) How does inferencing procedure affect the L2 learners’ acquisition of lexicalized and non-lexicalized words in reference to the difference between the two sets in the non-interventionist group?

2. Method

2.1. Participants

Seventy four female third year university students majoring in English Translation, studying at the Islamic Azad University, Roudehen Branch in Tehran were selected. All the participants were native-speakers of Persian. Only the intermediate level learners were selected based on their scores on the 2000 level of the Vocabulary Levels Test.

2.2. Instruments

2.2.1 Receptive Vocabulary Levels Test

Nations’ Vocabulary Levels Test was the first instrument utilized in this research with the purpose of assessing the learners’ receptive knowledge of vocabulary. The participants who passed the 2000 level with the score of at least 28 out of the possible 30 were selected as the participants of this study.

2.2.2 Target words

The target words for the study consisted of 76 English words (38 lexicalized and 38 non-lexicalized items). There were an equal number of nouns, verbs and adjectives in the two categories. The words were selected from the reading texts that were relatively difficult for the intermediate level learners.

The non-lexicalized words were explicated as those that could be paraphrased in Persian but do not have a fixed one word or compound equivalent in Persian based on several bilingual dictionaries and the judgments of several educated bilingual native speakers of Persian. The final selection encompassed words which were considered to be relatively cumbersome for intermediate students.

2.2.3 Lexicalized/ non-lexicalized vocabulary test

The lexicalized/non lexicalized vocabulary test was devised by the researcher to analyze the participants’ knowledge of both sets of items before and after the treatment. The test included 76 items of lexicalized and non-lexicalized vocabulary items which were arranged randomly. The list of target words included some polysemous items. Therefore, the words were tested in contextualized sentences in order to elicit the participants’ knowledge of the target meanings intended by the researchers. Three professors were consulted in devising the test. The reliability of this test was calculated by Cronbach’s alpha as .86.

2.2.4 Vocabulary Knowledge Scale (VKS)

In order to compare the performance of the participants dealing with the two sets of words before and after the treatment, the participants were provided with a vocabulary task devised by the researcher on the basis of a modified form of the Vocabulary Knowledge Scale (VKS; Wesche and Paribakht, 1996).
3. Procedure

Initially, the first version of Nations’ Vocabulary Levels Test was administered to the participants to evaluate their vocabulary knowledge. The second stage involved pre-testing learners to assess their performance on two sets of English words based on the modified version of VKS scale. The vocabulary instruction regarding the control group was non-interventionist. In other words, the participants in each class period were involved in a semantic processing activity regarding the intended words as they tried to infer the meaning of the target items from the context of sentences. The vocabulary exercise in this group was limited to selective attention, lexical inferencing, a sentence reconstruction task and a pushed output practice which were not regarded to be obligatory.

The learners were provided with an inferencing activity in which the intended bold-faced words were contextualized in sentences. The major aim of such a task was to draw learners’ attention to the target words to make sure they noticed the selected lexical items. In fact, the participants in this group were not provided with any explicit teaching intervention. They were expected to submit their papers after finishing with the task each session.

The vocabulary instruction related to the interventionist group was initiated with a theoretical description of the issue of L1 lexicalization and institutionalization. In other words, the researcher tried to provide the learners with a criterion which draws their attention to the distinction between lexicalized and non-lexicalized items. The contextualized words in this group were glossed with a matching activity including the target words and their equivalents or paraphrases in Persian with the purpose of contrasting the meaning of the words with their lexicalized or non-lexicalized forms in their L1. They were additionally expected to demonstrate their awareness regarding the issue of L1 lexicalization by choosing between the two available options of L (lexicalized) and NL (non-lexicalized). In a nutshell, the instructor at this stage tried to introduce the term ‘noticing’ as intention into the metalanguage of the classroom. The participants in this interventionist group were subsequently involved with a sentence translation task. The major aim of such a task was to lead the comparing task to discussion with the intention of making translation purposeful. In other words, the students were provided with the opportunity to consider the expressive possibilities of the target language and to discover that it is not always possible to attain exact equivalence by comparing and contrasting lexicalized and non-lexicalized vocabulary items. The learners in this group were ultimately involved in output activities like reconstruction through translation and sentence making.

The instructor provided the students with some oral corrective feedback and recommendations for each practice activity carried out in each individual session. After terminating the treatment, at the end of the course both groups were provided with the same vocabulary test as pre-testing to be able to compare the obtained results.

4. Results

In order to find out whether or not the mean differences between the two groups are significant an independent t-test analysis was conducted. The results of the t-test analysis between the two groups dealing with lexicalized and non-lexicalized items are presented in Table 1.
Table 1. Result of independent t-test analysis for lexicalized and non-lexicalized items

| Variables             | Scores | Levene’s Test for Equality of Variances | t-test for Equality of Means |
|-----------------------|--------|-----------------------------------------|-----------------------------|
|                       | F      | sig                                      | df                          | sig                          |
| Lexicalized Pre       | 2.58   | .096                                    | 72                          | .19                          |
| Lexicalized Post      | 18.74  | .000**                                  | 37.11                       | .000**                      |
| Non-Lexicalized Pre   | 2.08   | .154                                    | -.70                        | 72                          | .48                          |
| Non-Lexicalized Post  | 17.65  | .000**                                  | 37.24                       | .000**                      |

The independent sample t-test result with (df = 72) and (P = .19) presented the fact that the participants in the two groups did not have any significant differences with regard to their knowledge of lexicalized vocabulary items at pre-testing. However, the obtained t-test result at post-testing with (df = 37.11) and (P = .000) with respect to the same group of participants is representative of a significant difference regarding lexicalized items.

The independent sample t-test result with (df = 72) and (P = .48) demonstrated the fact that the participants involved in the two groups did not have any significant differences in reference to their degree of familiarity with non-lexicalized items at pre-testing (P > .05). However, the obtained t-test analysis with (df = 37.24) and (P = .000) at post-testing presents a significant difference between the two groups in reference to their degrees of achievement regarding the non-lexicalized items (p < .001). In order to answer the research questions pertinent to the overarching issue of L1 lexicalization a split-file t-test analysis was conducted. The results are displayed in Table 2.

Table 2. Result of split-file paired t-test for lexicalized/non-lexicalized items in the interventionist and non-interventionist groups

| Groups      | VKS Scores | Lexicalized | Non-lexicalized | t   | p    |
|-------------|------------|-------------|-----------------|-----|------|
|             | Mean       | SD          | Mean            | SD  |      |
| Glossing    | Pre-Test   | 59.69       | 6.25            | 52.58 | 6.88 | 6.77 | .000** |
|             | Post-Test  | 164.20      | 28.21           | 148.47 | 26.26 | 5.26 | .000** |
|             | Pre to Post Testing Difference | 104.55 | 27.62 | 95.88 | 27.43 | -2.51 | .019* |
| Control     | Pre-Test   | 58.08       | 4.33            | 53.55 | 4.88 | 6.04 | .000** |
|             | Post-Test  | 74.76       | 5.03            | 70.00 | 4.82 | 5.00 | .000** |
|             | Pre to Post Testing Difference | 16.68 | 4.37 | 16.44 | 5.88 | -.19 | .845 |

** (p < .001)  *(p < .05)

Table 2 presents that the learners in both groups had greater knowledge of lexicalized items comparing with their non-lexicalized counterparts at pre-testing (p < .001). The obtained t-test results were also significant regarding the mean difference between the two sets of words at post-testing in both groups. However, the measured rate of learning (pre to post-testing difference) was reported to be significant only in the interventionist group (P < .05).

5. Conclusion

The obtained findings regarding the first facet of the study denoted the fact that glossing in the form of L1 translation may have a considerable effect on the intake of vocabulary as a result of increased saliency and the formation of associations which leads to a more effective storage of items. Perhaps, the obtained findings are consistent with the results of the two investigations conducted by Liu (2008) and Latsanyphone and Bouangeune (2009) that supported the beneficiary effect of the learners’ mother tongue (L1) as an explicit vocabulary teaching method on the retention and memorization of novel lexical items.

The obtained data regarding the effect of L1 lexicalization in the experimental group is consistent with the results reported by Paribakht (2005) and Chen and Truscott (2010). Paribakht (2005) conducted a study to
evaluate the influence of first language lexicalization on second language lexical inferencing. The obtained results by Paribakht (2005) denoted the idea that in spite of the fact that learners resorted to somehow similar types and proportions of knowledge sources in the way of inferring both groups of items, they were shown to be far less successful in decoding the meanings of the non-lexicalized words. Additionally, the obtained results stand in conformity with the findings reported by Chen and Truscott (2010) who found repetition inefficient in learning non-lexicalized words. The findings from the current study suggest that L1 lexicalization may be a significant factor in lexical acquisition in particular L1-based interventionist situations as well. Thus far, the results suggested that, learners seem to have difficulty in processing L2 words not lexicalized in their L1, even when they explicitly notice the existing gap by being exposed to L1-based interventions. Given the status quo portrayed above, the future research may benefit from treating the issue in L2-based interventionist situations.

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