

# INFERENCE OF FAKE WORDS' MEANING BY MOROCCAN EFL LEARNERS

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**Abstract.** Do Moroccan EFL learners depend on the context to infer the meaning of unknown words occurring in sentences? This study investigates the way intermediate and advanced learners infer the meaning of fake words. To this end, the subjects took a test consisting of 60 items with three multiple choices. Subjects were asked to provide appropriate, inappropriate meanings of the unknown word or none of the choices without using dictionaries. The Chi-2 tests were adopted to determine whether there is a) a statistically significant difference between the three categories and b) a statistically significant difference between intermediate and advanced learners' inferencing results. The findings demonstrate that the context along with the lexical knowledge of the L2 learners play the most important role in understanding vocabulary.

**Keywords:** *mental lexicon, lexical inferencing, frame, context, stored meaning.*

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## 1. INTRODUCTION

Vocabulary knowledge and development are central to language comprehension. Children acquire vocabulary words and their meanings in L1 through oral and daily exposure to words in language context. In L2 however, the process of vocabulary acquisition knows a more formal method as it is usually encouraged through reading and written texts become a major form of exposure to new words. When learners are exposed to new words, they usually make guesses or inferences about their contextual meaning. The process of identifying a new word in a context is then related to the useful cues of the word and surrounding text that taps on the reader's previous knowledge to generate an informed guess. Readers then go through trials of accepting and rejecting possible meanings to arrive at the appropriate meaning.

## 2. CONTEXT IN COGNITIVE LINGUISTICS

Context is not a new object of study in linguistics. It has long been considered an essential factor in the interpretation of

linguistic expressions. As early as the 1930s, Firth had already begun working on linguistic corpora, and pointed out that "the complete meaning of a word is always contextual, and no study of meaning apart from a complete context can be taken seriously" (Firth, 1935, p. 37). As a result, context became the focus of most linguistic trends in the late 1970s.

Lately, cognitive linguistics has made a point of integrating context into meaning. As a matter of fact, its object of study is not language as an abstract entity, but language to mean, i.e. language in use, and it is quite obvious that real language use must necessarily involve context.

## 3. FRAME KNOWLEDGE / CONTEXT

Linguistic context has well known effects on the recognition of spoken and written utterances and the interpretation of words. Sometimes a sentence requires only a single representation of its meaning when a well-defined and clear framework is provided. Unknown words might serve as a recall cue for a specific framework. Hence, the interpretation of words is affected by the linguistic context since this latter does not only enable the listener to select appropriate sense of ambiguous or unknown words but also leads to representations of more specific referents. Accordingly, it suggests an aspect for a word's meaning that seems relevant to the context.

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#### 4. MENTAL LEXICON

Scholars agree that little is actually known about the mental lexicon (Aitchison, 2003; Channell, 1988; McCarthy, 1990) and all definitions and descriptions provided to reveal its nature that is based on metaphors (Peppard, 2007). Mental lexicon could be defined as “a person’s mental store of words, their meaning and associations” (Richards and Schmidt, 2002, p. 327).

Starting with the premise that the mental representation of lexical meaning has ready access to lexical representation, the mind contains lexical entries that provide meaning to the word. According to some theorists, there are three theories of lexical entries generated about the meaning of words. First, the sense of words consists of a structured set of semantic features (Schaeffer & Wallace, 1970; Smith, Shoben, & Rips, 1974). Second, the mental lexicon takes a form of semantic network or a combination of network and features (Anderson, 1976; Anderson & Bower, 1973; Collins & Quillian, 1969; Rumelhart, Lindsay, & Norman, 1972). These two theories prioritize the decomposition of meaning. Third, suggests there are no semantic representations of words, only a vast set of rules of inference or meaning forms (Fodor, Fodor, & Garrett, 1975; Fodor, 1977, Ch.5; Kintsch, 1974).

#### 5. LEXICAL INFERENCE

Carton (1971) explains inferencing as using attributes and contexts that are familiar in recognizing what is not familiar. Inferencing is based on processing the phonology of words based on context and general knowledge. Moreover, inferencing could be defined as the higher order of comprehension of a given context. Besides the cues in the sentence, the listener needs to contextualize it to understand the meaning. Lexical meaning is not approached as the definable but rather as a set of cognitive relations. In this respect, Sternberg (1987) devised a framework to infer meaning from contextual cues based on selective encoding (determining what information is relevant), selective combination (combining different information from different cues to construct a meaningful whole), and selective comparison (associating the new information with what one already knows).

In this regard, learners use a set of strategies that enable them to arrive at an appropriate meaning to a lexical item. These

strategies are divided into four categories; form focused strategies, meaning focused strategies, evaluative strategies, and monitoring strategies.

As far as form focused strategies are concerned, learners often tend to analyze a word using their knowledge of grammar, suffix, prefix, punctuation. They also attempt to infer the meaning of the target word with other similar words, this is referred to as association. Using textual clues and guessing the meaning of the target word is a meaning focused strategy that leads to successful inferencing. Paraphrasing and translating part of the text that contains target words depend on using meaning as well. As for evaluative strategies, L2 inferencers might make inquiry by questioning their inferences, confirm or disconfirm their inferences by using the information provided in the text, or make evaluative comments about the target word. L2 inferencers might depend on monitoring strategies by making inferences about the failure or the difficulty of the target word, postponing inferencing until another time (suspending judgement), or discarding old inference and attempting a new one (reattempting). Those who succeed in lexical inferencing usually employ a conceptual framework by appropriately using their background knowledge and textual clues that come from the target words and its surrounding context (Oxford, 2011). Thus, they consider both surface meaning and implied meaning to infer the meaning of the word. Successful inferencers, then, are those who make use of the appropriate strategy in the convenient time. They tend to have a deeper knowledge of the contextual cues and use of the wider context. They use their background knowledge including grammatical knowledge and knowledge about the context. Indeed, both successful and unsuccessful learners use inferencing and predicting strategies, but only successful learners modify their predictions. For unsuccessful learners, they lack good monitoring of their strategies «strategy orchestration».

Successful inferencers often build a broader conceptual framework by making appropriate use of their background knowledge and the context surrounding the target words. As a matter of fact, appropriate use of linguistic and background knowledge is essential for successful inferencing as it provides a conceptual framework that helps inferencers fill the gaps in the textual meaning. It creates a “perceptual filter” (Kintsch, 1998, p. 94)

that helps distinguish relevant from irrelevant information and if needed, to suppress the irrelevant information.

There are some factors that influence lexical inferencing such as text factor which refers to how difficult the text is, the importance of the text, and the class that attracts inferencing attempts (nouns, verb...). Furthermore, failing to infer meaning might be due to the lack of adequate textual cues; clear contextual cues are critical to word guessability. Also, poor comprehension to the surrounding words might result in such failure. Haastrup (1991) claims that L2 proficiency is a decisive factor in lexical inferencing since pre-existing lexical knowledge influences vocabulary inferring.

## 6. THE STUDY

### 6.1. Design

The previous section sheds light on characteristics of successful and unsuccessful inferencers. Successful and unsuccessful inferencers use inferencing and predicting strategies, but only successful learners modify their predictions based on the available clues (Carton, 1971). In this respect, learners might have a vast list of inferencing or lexical entries that provide meaning to words that are already stored in the mental lexicon. However, if there are no lexical entries but a vast list of inferencing, subjects should reject all the choices in the same way. With this line of thought, this study is based on one research hypothesis and two null hypotheses:

RH: There are lexical entries triggered by context to infer the meaning.

NH1: There is no significant difference between the 3 categories

NH2: There is no significant difference between intermediate and advanced learners' inferencing results

When the mental lexicon is poor the inferential strategies assign meanings to words, which entails that there are cognitive processes that assign the « appropriateness » in communicative contexts.

In order to test these hypotheses, fake words were inserted in a specific context that would draw participants to depend on clues so as to find the appropriate meaning. Participants then had three choices of the unreal word: a) appropriate choice to the context, b) inappropriate choices, and c) 'none of these' choices provide a margin to reject all

the choices. The following is an example of the test question:

(21) You have to visit the beest to cure the toothache.

{a. car b. manager c. trainer  
d. dentist e. none of these}

a, b, and c are distractors that do not match the context of the sentence. d, however is a cue that fits into the context of the sentence. If the priority is given to 'none of these', this would be an indication that comprehension depends on stored lexical meanings only. But if more importance is given to the appropriate word this would probably be an evidence that meaning of words are triggered by a specific context. This will be more elaborated in the discussion of the results.

### 6.2. Instrument and Sample

The data were collected from two groups of Moroccan EFL learners. The first group was an intermediate level in an English language center composed of 30 subjects. The second was an advanced group of 30 subjects. The levels were defined by the placement test designed by the center. The instrument used for this study is a multiple choices task based on 40 sentences and 20 sentences which were added as distractors.

13. He is **panfering** a white T-shirt and blue trousers.

{a. classifying b. printing c. wearing  
d. writing e. none of these}.

These distractors were ordinary sentences in which only one of the five options was correct and appropriate to the context. The aim of these is to test learners' knowledge of the familiar existing words and thus examine the subjects' performance. The test as such will not be misleading as the subjects will encounter known words along with fake ones while answering the test items. The following example was implemented in the test as distracting sentence:

30. I saw a very good **position** advertised in the newspaper.

{a. job b. occupation c. work  
d. office e. none of these

This instrument supported the objective of the study, which aimed at finding answers to the following questions:

- Will subjects choose appropriate answers for a fake word though they do not know it?

- Is there any significant difference between the frequencies of the three

categories?

- Is there any significant difference between the two levels?

### 6.3. Results and Discussion

As mentioned earlier, the 20 distractors were intended to examine the subjects' performance in the test. Needless to say, the performance of the two groups should be statistically significant, given the difference of their level.

An independent-sample t-test was conducted to compare the scores of the test of intermediate and advanced levels. Surprisingly, there was no significant difference in scores for intermediate ( $M= 12.23$ ,  $SD=3.25$ ) and advanced subjects [ $M= 12.43$ ,  $SD=3.56$ ;  $t(58)=-.22$ ,  $p=.82$ ]. This might be related to the choice of distractors that might not be very challenging for these levels or maybe the strategies used are cognitively education-independent.

Indeed, it is worth mentioning that the 'none of these' option was chosen when advanced subjects did not recognize the word ( $M= 6.13$ ) opposed to ( $M= 1.43$ ). inappropriate choice. The first choice, as such, revealed their hesitation to choose a word they are not sure if it is a synonym to the test item. Intermediate subjects, however, opted for inappropriate answers ( $M= 8.80$ ) rather than relying on their stored knowledge and choosing 'none of these' option ( $M= 1.74$ ).

Regarding test items, their answers were classified into three categories: a) one 'appropriate' which is a fake word, a) one category of 'inappropriate' choices that includes three items, and c) 'none of these'. The frequencies of each category were marked for each subject and the total was calculated for two study levels. The following table summarizes the results:

Table 1: frequencies by category and study level.

Level	Appropriate	Inappropriate	None	Total
Intermediate	748	311	151	1210
Advanced	773	221	202	1196
Total	1521	532	353	2406

As can be noted, the frequency of appropriate answers (1521) is twice the number of the inappropriate answers (532), and much higher than the frequency of no

answer (353). This confirms our research hypothesis suggesting that meaning of words depends on the context.

A one-way chi-square statistic suggests that the difference between the two levels is indeed significant at a very high degree of probability (2: 22.9255; df: 2;  $p< .000$ ). That is to say, this difference cannot be a result of chance except to a very low degree of probability. Thus, the null hypothesis disconfirmed the fact that there is no significant difference between the three categories.

To test the second null hypothesis a two-way chi-square was conducted in order to reveal the difference between the levels. Two ways table sorts the data according to two categorical variables. We want to test the hypothesis that there is no relationship between these two categorical variables ( $H_0$ ). Comparing the intermediate and the advanced levels from the sample data via the two-way chi-square indicates that there is no significant association between the two. Therefore, the second null hypothesis is rejected.

In these results, the figures that need some comments are those obtained for appropriate and inappropriate answers. With the high frequency of appropriate answers, it might be claimed that the participants use a pragmatic interpretation in order to assign a specific meaning based on a specific structure of a pragmatic context. The 'appropriateness' of the word then is assigned according to the communicative context. Thus, there is no connection between the memory representation of one word to the presentation of another without a framed context. Obviously, the word 'dog' is directly related to 'bark' and 'table' to 'chair'. Still, there is a frame that allows assigning the most appropriate word. Therefore, words do not exist in isolation to the context but rather there exist concepts to which the words refer. Words association is hence related to the referents since they are not associated in isolation but rather retrieved as a concept from the schemata. Subjects chose the appropriate words instead of opting for no choice. This confirms the hypothesis that underlines the existence of lexical entries that are triggered context to infer the meaning. Not only the relevant schema is activated, but also the most appropriate word is retrieved depending on the cues that lie in the text. The context in the sentences was manipulated in the sense that the tasks set up intended to direct the participants' attention towards a particular word.

The discrepancy between the T-test and

Chi-2 results might be explained by the use of inferencing only in contexts where the learner has never encountered the word. For the distracters, as an example, advanced learners tend to choose no answer rather than choosing an answer that they are not sure about. This entails that advanced learners depend on the stored knowledge when introduced to familiar words but make use of inferencing when encountering a new word. Intermediate learners; however, tend to choose inappropriate answers as far as the distracters are concerned. This suggests that intermediate learners depend on inferencing while encountering both familiar and unknown words.

With both levels, context happens to be an essential tool in lexical inferencing as it provides more clues to build a framework to depend on while building a representation to find the meaning of words.

## 7. CONCLUSION

The mental lexicon is a complex structure organized in terms of phonology, semantics, syntax, among other levels. This inquiry confirms the hypothesis which underlines the existence of lexical entries that are triggered the context to infer the meaning. The subjects gave priority to appropriateness instead of none of the choices, even if the vocabulary task they were given was not an ordinary one. In other words, some items were added as distracters. The L2 learners retrieved the most appropriate word depending on the cues provided by the context.

The intermediate and advanced L2 learners use their inferential strategies to find out meanings of new words from the context. Successful inferencing depends heavily on the learners' background knowledge and the context surrounding the target words.

### Implications:

Since students of advanced level were more likely to opt for inferencing the correct meaning than intermediate students did, students could be trained to infer the meaning of unknown words. This should go hand in hand with building appropriate context to tease learners' cognition. Teaching vocabulary then must rely on strategies that promote learners' interest in inferencing. Indeed, vocabulary should not be taught in isolation from context as most of vocabulary knowledge is acquired through reading. Thus, the vocabulary

inferencing training will be established in a favorable learning context.

### List of Abbreviations:

L2	Second Language
SLA	Second Language Acquisition
EFL	English as Foreign Language
RH	Research Hypothesis
NH	Null Hypothesis

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