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The Impact of Morphological Awareness on Iranian University Students' Listening Comprehension Ability

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Abstract

This study examines the relationship between morphological awareness and listening comprehension ability in Iranian EFL learners. Morphological awareness refers to the learners' knowledge of morphemes and morphemic structure, allowing them to reflect and manipulate morphological structure of words (Carlisle, 1995; Carlisle & Stone, 2003). The subject pool of this study consisted of 40 students (25 females and 15 males). They were second semester students majoring in English Language Teaching at Hamedan Branch, Islamic Azad University. They were randomly divided into two groups of 20 subjects, Control and Experimental groups. Four short listening passages were used as the pre-test which included 30 tokens of words with morphemic structures. The results of the pre-test revealed no significant difference between two groups. Then four one hour sessions were held for the experimental group. After four sessions, four short listening passages were used as the post-test. The results of the independent-sample t-test showed a significant difference between the two groups. The findings reflect the relationship between morphological awareness and listening comprehension ability. These findings may have some implications for explicit instruction on morphological knowledge.

Keywords: Morphological Awareness, Listening Comprehension Ability, University EFL Learners

1. Introduction

Listening comprehension is a good predictor of individual differences in reading comprehension. This is because it draws on various linguistic abilities and cognitive resources. Linguistic abilities include vocabulary knowledge, grammatical skills, pragmatic abilities, metalinguistic awareness, idioms and figurative language. Formally, grammar is made up of morphology and syntax. Morphology refers to the basic structure of words and the units of meaning (or morphemes) from which they are formed. For example, the word 'note' is a single morpheme but the compound word 'notebook' can be thought of as containing two morphemes, 'note' and 'book'. Therefore, there is an intimate relationship between grammar and meaning and, finally, comprehension.

Morphological skills are important for sentence comprehension too. Inflections are parts of words that cannot stand alone (e.g. –ed, -ing) but when combined with a stem they serve a grammatical function. Verb inflections are particularly important to comprehension: they denote contrast between, for example, past and present tense and singular and plural forms. In order to use context, learners must be able to use grammatical clues in sentences. Learners also use clues from grammatical construction to learn the meanings of new words.

Morphology is "…. the study of the hierarchical and relational aspects of words and the operation on lexical items according to word formation rules to produce other lexical items" (Leong and Parkinson, 1995, p. 237). Traditionally, a word can be divided into the minimal linguistic units that bear meanings or grammatical functions, i.e. morphemes. Coates (1999) states four criteria for identifying a morpheme. A morpheme should have a meaning or function, recur in other words with a related meaning (e.g. un- in unbelievable and unhealthy), and be involved in a pattern of interchange (e.g. –est in biggest can be substituted with another morpheme such as, -er).

Free and bound morphemes are two classifications of morphemes. Free morphemes are those that can exist in their own (e.g. card in credit-card), while bound morphemes cannot exist in their own (e.g. –er in bigger) (Coates, 1999). The word rebuilding can be broken into four morphemes: re-, build, -ing, -s. build is called the root which is the core of a word to which other morphological units are attached. Re-, -ing, and –s are called affixes. Affixes can appear in the forms of: a. prefixes (e.g. un-): bound morphemes which are attached in front of a stem, b. suffixes (e.g. –s): bound morphemes which are attached at the end of a stem.

Coates (1999, p. 45) states that morphemes are further categorized into lexical morphemes (e.g. –full, -ness, etc.) or grammatical morphemes (e.g. –er, -s). Grammatical morphemes are part of inflectional morphology that underlies the processes involved in building grammatical word forms. Words that contain inflection are called inflected words (e.g. bigger, designing, etc.). Lexical morphemes are part of derivational morphology that is concerned with the processes involved in building lexical word forms. So, morphology is concerned with word forms and word formation rules.

The ability to use the knowledge of word formation rules and the pairing between sounds and meanings is called morphological awareness (MA) (Kuo and Anderson, 2006). Carlisle (1995, p. 94) defines morphological awareness as "…. Children's conscious awareness of morphemic structure of words and their ability to reflect on and manipulate that structure". With morphological awareness, learners are able to learn morphemes and morphemic boundaries by disassembling complex words into meaningful parts (e.g. adulthoods= adult + -hood+ -s), learning the meanings of roots, affixes (adult= not child, -hood= the state of being, -s= to indicate plural nouns), and reassembling the meaningful parts into new meanings (childhood, motherhood, fatherhood, and brotherhood).

It is of importance to note that the concepts of morphological awareness and morphological acquisition are different. The concept of morphological awareness implies the learners' use of metacognitive strategies of reflecting and manipulating word formation rules to drive the meaning of new words in the absence of communicative context . But the concept of morphology acquisition means the cognitive abilities to use and comprehend morphological structure in natural speech and does not necessarily entail metacognitive strategies.

Morphological awareness helps learners in many respects. As Kuo and Anderson (2006) argue morphological awareness makes the learner more aware of the writing system. Learners can also perceive spelling and phonological irregularities with the morphological knowledge (e.g. body-bodily; mouse- mice). There is increasing interest in morphological awareness as a main aspect of vocabulary knowledge, especially in reading. First of all, Singson et al. (2000) state that morphemes have semantic, phonological and syntactic features that express the role of a given word in the reading context (e.g. –s in the verb *walks* shows that the action doer is the only one person who does the action in the present time). In addition, Sandra (1994) is of the opinion that words are organized in the mental lexicon according to their phonological properties with morphological knowledge as a framework for storing words. The relationship between morphological awareness and reading may be reciprocal or directional (Chung and Hu, 2007; Kuo and Anderson, 2006). Both reading and morphological awareness can help to the development of one another when the relationship is reciprocal. If the relationship is directional, morphological awareness leads to reading proficiency, but not the other way around.

Some studies show that morphological awareness is a predictor of some language skills including understanding the spelling system (Fowler and Liberman, 1995; Bear, et al., 2004; Treiman and Casar, 1996) and single word reading and reading comprehension (Carlisle, 1995; Fowler and Liberman, 1995; Qian, 2002; Tyler and Nagy, 1990).

Learners understand better the novel words they encounter in reading with reading strategies. Introducing reading strategies to learners help them to understand the nature of reading task. Among those reading strategies is vocabulary-related strategies that are undeniably essential to understanding reading tasks. One of the vocabulary-related strategies is morphological analysis. Carlisle (1995) argued that morpheme identification can be seen as a problem-solving strategy that can be used to understand a large number of derived words. So, morphological awareness is essential for developing children's independent, vocabulary learning strategies (Baumann et al., 2003; Tyler & Nagy, 1990; White, et al., 1989). This in turn helps promotes the development of reading proficiency (Nagy, et al., 2006; Cunningham & Stanovich, 1997). For instance, Cunningham and Stanovich's (1997) longitudinal study shows that rapid acquisition of vocabulary of first graders predicted their reading comprehension 10 years later. Similarly, Chall, et al.,(1995) demonstrate that third graders with poor vocabulary size have poor reading comprehension at later schooling stages. A study by Nagy et al., (2003) reveals that morphological awareness of at-risk readers at second and fourth grades can be seen as a remedy for inefficient reading comprehension.

It has been found that morphological awareness and vocabulary growth are correlated (Nagy and Anderson, 1984; Wysocki and Jenkins, 1987). Learners' vocabulary rapid growth is greatly attributed to their ability to apply word formation rules. Wysocki and Jenkins (1987) investigated whether forth, sixth and eighth graders use morphological analysis to arrive to the meaning of complex words. They were tested on some words related and unrelated to the words in the training session. The researchers found that the students perform better in related words, and that learners understand new meanings by morphological generalization of those words sharing the roots.

Similarly, Carlisle (2000) examined the relationship between third and fifth graders' awareness of morphological structure and defining meanings of complex words, and the relationship between morphological awareness and reading and comprehension. He administered tests of complex word reading, morphological structure and complex word meanings. The results indicate that morphological awareness, for both grades, is correlated with the ability to define complex words, and that some aspects of morphological awareness are associated with reading comprehension. Poor readers have been found to be less sensitive to morphological relations that facilitate lexical decision, and less efficient in processing derivative words (Leong and Parkinson, 1995). Therefore, studies show that applying morphological analysis as a one of the strategies to uncover the meaning of new words is potential for promoting learners' vocabulary knowledge and reading abilities.

Explicit instruction on morphological units may enable learners to unlock the meaning of complex words, and this is maybe an important vocabulary learning strategy. Skills in morphological analysis give learners the sense of words and

help to the development of vocabulary knowledge and in turn reading proficiency. There are a number of studies that show that explicit instruction on affixes and roots help the elementary graders to unlock the meaning of newly encountered words (Baumann, et al., 2003; Baumann et al., 2002). Baumann et al. (2003) examined the effect of instruction on morphological and contextual analysis (MC) versus textbook vocabulary instruction (TV) on fifth graders' abilities to understand meaning of unfamiliar words. The results indicated that the MC students outperformed the TV students in deciphering meaning of unfamiliar and complex words. In another study Morin (2003) examined the impact of derivational morphology instruction on developing receptive and productive vocabulary knowledge in the case of Spanish beginner learners at college level. Morin compared the performance of a control group and experimental group in the first and second semester. Three tests were given: vocabulary knowledge test, productive knowledge test and receptive knowledge test. The results revealed that morphological instruction is a benefit in productive and receptive vocabulary knowledge, especially for second semester learners. Morphological instruction also contributes to learning new unfamiliar words, and therefore, increasing vocabulary size. Leong (1999) suggests early explicit instruction of transformation rules, word formation rules and morphological structure.

Al-Farsi (2008) conducted a research to study the relationship between morphological awareness and vocabulary size in Omani EFL learners. Since morphological awareness has been found to be an important predictor of L1 vocabulary, the study was done to find whether greater morphological awareness correlated with larger vocabulary size in the L2 learners too. The results indicated that the students' overall morphological awareness and vocabulary size were limited, and that a relationship between the two constructs could not be established, owing to the appearance of floor effect in test scores and task difficulty.

Despite the numerous studies carried out about morphological awareness with reference to reading, spelling development and vocabulary size, the concept has been less treated with reference to listening, especially in EFL contexts. Karimi and Gheitury (2009) examined the relationship between morphological awareness and listening transcription ability of Iranian pre-university students. The results indicated that there is a relationship between morphological awareness and listening transcription ability of Iranian pre-university students. The fact is that there is no study about the relationship between morphological awareness and listening comprehension in EFL contexts. So, this study is an attempt to fill the gap to examine the effect of morphological awareness on listening comprehension of university students in Iran. Therefore, the research question can be stated as:

- *Does morphological awareness have any significant effect on EFL students' listening comprehension?*

The research question gave way to a null hypothesis as follows:

- *Morphological awareness does not have any significant effect on EFL students' listening comprehension.*

2. Method

2.1 Participants

The subject pool of this study consisted of 40 students (25 females and 15 males). They were second semester students majoring in English Language Teaching at Hamedan Branch, Islamic Azad University. They were randomly divided into two groups of 20 subjects, Control and Experimental groups.

2.2 Instrumentation

Four short listening passages were used as the pre-test which included 30 tokens of words with morphemic structures. Then four one hour sessions were held for the experimental group. After four sessions, four short listening passages were used as the post-test. The passages included 30 tokens of words covered in the instruction given to the experimental group. But the token of words in the post-test passages were different from those in the pre-test passages and from those covered during the instruction.

2.3 Procedure

The 40 participants were randomly classified into two groups labeled as Group 1 and Group 2. Group 1 was the control group while Group 2 was the experimental group. First of all, both groups received four short listening passages used as the pre-test which included 30 tokens of words with morphemic structures. Then, four one hour sessions were given to the experimental group. The instruction was about morphological characters in English such as –ing, -ness, -tion, possessive –s, plural –s, etc.. Then, four short listening passages as the post-test were given to both groups. The passages contained 30 tokens of words with morphemic characters. In both pre-test and post-test, the participants were required to answer some comprehension questions based on the passages.

3. Results

The present study was designed to explore whether morphological awareness has any significant effect on EFL students' listening comprehension ability. The research question was translated into the following hypothesis:

Morphological awareness does not have any significant effect on EFL students' listening comprehension.

To probe the present question, four short listening passages as the pre-test were given to both experimental and control group. The results of the pre-test are as follows:

Table 1. Pre-test results

Group	N	Mean	Std. Deviation	Std. Error	Sig.
Experimental Group	40	57.5063	8.01500	1.46333	.333
Control Group	40	55.7690	5.53570	1.01068	

As Table 1 shows, there is no difference between the two groups in terms of listening comprehension ability prior to giving them any instruction regarding the morphological character. After the pre-test, four one sessions of instruction regarding morphological characters in English were given to the experimental group. Finally, a post-test was given to both groups to see whether learner's morphological awareness of English words has any effect on their listening comprehension ability. The results are as follows:

Table 2. Post-test results

Group	N	Mean	Std. Deviation	Std. Error	Sig.
Experimental Group	40	62.4040	2.59661	.47407	.001
Control Group	40	57.1713	8.16923	1.49149	

As Table 2 shows, there is a significant difference between the two groups in terms of their listening comprehension ability due to instruction regarding the morphological characters in English such as –ing, -ness, -tion, possessive –s, plural –s, etc..

4. Discussion

Given that the main goal of the present study was to find whether morphological awareness had any significant effect on EFL students' listening comprehension ability, the following hypothesis was considered in attempting to explain the results:

Morphological awareness does not have any significant effect on EFL students' listening comprehension.

As the results indicated there was a significant difference between two groups in terms of their listening comprehension ability due to instruction regarding the morphological characters in English such as –ing, -ness, -tion, possessive –s, plural –s, etc..As Nation and Newton (2009) argues knowledge of morphological features of a word is believed to be related to building a substantial vocabulary size, identification of their grammatical categories, and effective word recognition skills which are, in turn, reported to be strong predictors of listening transcription performance. In addition to contributing to listening transcription performance, Koda (2008) states that knowledge of morphology can also help listening comprehension by helping learners guess the meaning of unfamiliar words based on their morphological features.

The findings of this study are in consistent with the findings of Kuo and Anderson (2003) who studied whether morphological awareness plays a significant role in vocabulary acquisition and reading proficiency among second, forth and sixth American and Chinese graders of English and Chinese languages. The results confirm the previous studies that morphological awareness is developed through students' exposure to language and that morphological awareness is indispensable for English and Chinese vocabulary acquisition and reading proficiency.

Deacon and Kirby's (2004) four-year longitudinal study also shows that there is a positive relationship between morphological awareness and reading comprehension for second, forth and sixth graders. They compared the effect of inflection awareness and phonological awareness on reading development. The study demonstrates that morphological awareness contributes to reading development.

A study by Karimi and Gheitury (2009) also illustrates that there is a relationship between morphological awareness and listening transcription ability of Iranian pre-university students. They gave instruction regarding to morphological characters to experimental groups. The post-test revealed a significant difference between experimental and control groups in terms of their listening transcription ability due to the instruction given to the experimental groups.

In conclusion, this study indicates that morphological awareness contributes to vocabulary growth and helps learners to guess the meaning of unfamiliar words based on their morphological characteristics.

5. Conclusion and pedagogical Implications

As mentioned before, the present study conducted to investigate whether or not morphological awareness had any significant effect on EFL students' listening comprehension ability. Better language performance is affected by several metalinguistic skills, including phonemic awareness, orthographic knowledge, and morphological awareness (e.g., Apel, et al., 2006; Mahony, et al., 2000). Among these, morphological awareness has been shown to contribute to vocabulary growth and various language skills (Bear, et al., 2008; Treiman and Casar, 1996). As koda (2008) argues knowledge of morphology can help students guess the meaning of unfamiliar words and this activity aid listening comprehension.

So, there is an urgent need to include explicit instruction on morphological knowledge. Promoting students' morphological awareness should be seen as a metalinguistic tool for word consciousness, i.e. the knowledge and characteristics essential for learners to use words effectively (Scott and Nagy, 2004). The students are more likely to approximate the meaning from morphological units (Carlisle and Stone, 2003), boosting their vocabulary repertoire.

Promoting students' vocabulary knowledge and morphological knowledge predicts their academic success (Beck, et al., 2002) in the sense that they move from learning to read to reading to learn independently.

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