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Morphological Awareness And Some Implications For English Language Teaching

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Abstract

In the past decade there has been a surge of research interest in morphological awareness (MA), which refers to an individual's ability to decode the morphemic structure of words and further analyze them. This review gives conceptual insights into MA from linguistic perspectives and provides some implications for English language teaching based on empirical research findings. Recent research into MA suggests that there is a significant rate of achievement among students who are exposed to strategies for not only understanding the meanings of words but also recognizing different morphological forms of the same word in reading texts, as opposed to students who are not exposed to such strategies. Indeed, a large number of studies conducted have established that MA is a critical factor in enabling comprehension and ensuring that students have a clearer understanding of vocabulary. In addition, it has emerged that for many educators, an emphasis on a clear understanding of such aspects as prefixes, suffixes, and roots determines the success rate in teaching vocabulary. Therefore, language teachers can engage in teaching MA in the classroom as part of explicit language instruction by adopting some instructional strategies that can be adjusted to suit each age group.

Keywords: Morphological awareness; English language teaching; vocabulary instruction; reading comrehension;

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1. Introduction

Some metalinguistic skills such as phonological awareness, orthographic knowledge, and morphological awareness (MA) have a significant positive impact on an individual's ability to perform better in learning a new language (Ginsberg, Honda and O'Neil, 2011). Of these three aspects, however, MA has recently been a focus in both first language (L1) and second/foreign language (L2) literacy development and has especially been examined with regard to skills including reading, writing, and spelling development as well as vocabulary acquisition (Karimi, 2012; Kieffer and DiFelice Box, 2013). MA is often used to refer to the ability of a child to decipher the morphemic structure of words and further analyze them (Carlisle, 1995, 2000). Put another way, students with MA are able to identify the smallest meaningful units of language such as free and bound morphemes as well as inflectional and derivational markers. This is especially important when learners often have difficulty in reading and grasping academic vocabulary (Kieffer & DiFelice Box, 2013), partly due to the fact that there are many phonological and morphological differences between English and many other languages (Comrie, 1989; Birch, 2007).

Given the increasing number of English language learners across the world, it is emerging that language teachers can also help these learners recognize and manipulate new words by promoting their MA (Graves, 2006; Kieffer and Lesaux, 2012a, 2012b). Practically, language learners familiar with the formation of new English words through prefixes, suffixes and roots may have more words and comprehend texts better (Kieffer & DiFelice Box, 2013). Thus, the present paper attempts to explain the significant impact of MA on the language performance of English learners and provide language teachers with the relevant information and implications that may help promote their learners' MA. This paper first gives conceptual insights into morphology, morphemes and morphological awareness, and then presents some pedagogical implications for English language teaching. It is expected that language educators will get the relevant information to adequately structure their instructional program in a manner that would suit their students.

2. Morphology, morphemes, and morphological awareness

2.1. Morphology

The word morphology is usually credited to the German poet, novelist, playwright, and philosopher Johann Wolfgang von Goethe (1749–1832), who invented it at the beginning of the 19th century in a biological context (Aronoff and Fudeman, 2010). It comes from Greek *morhpe* which means 'form, shape' and *logos* which means 'science', yielding 'the study of form or forms.' Biologists use this term to mean 'the study of the form and structure of organisms' and geologists use it to refer to 'the study of the configuration and evolution of land forms.' In linguistics, morphology is frequently defined as the study of the internal structure of words and the rules governing the formation of words in a language (Celik, 2007; Yule, 2010). In addition, Aronoff and Fudeman (2010, pp. 1-2) refer to it as "the mental system involved in word formation" as well as a branch of linguistics that investigastes words, their internal structure, and how they are created. This implies that morphology is indeed part of a speaker's grammatical knowledge of a language.

2.2. Morphemes

Morphemes are the minimal units of meaning or grammatical function that are used to create new words (Yule, 2010; Lieber, 2009). These units of meaning consist of forms like *blend*, and the minimal units of grammatical function include markers used to denote plural or present tense. For instance, the word *collectors* includes three morphemes. One minimal unit of meaning is *collect*, another minimal unit of meaning *–or*, (marking "person who *collects* something"), and the other minimal unit of grammatical function *-s* (indicating plural). Morphemes can be *free* and *bound*. A free morpheme can stand on its own as an independent, single word, for example *teach* and *collect*. However, a bound morpheme cannot normally exist on its own and must be typically added to another form (Celik, 2007; Fromkin, Rodman and Hyams, 2011). For example, the plural morpheme *-s* can only occur when it is attached to nouns. All English affixes are bound morphemes, consisting of prefixes added to the beginning of another morpheme (such as *un-* in words like *undo, unfair* and *unable*), and suffixes attached to the end of another

morpheme (such as *-er/-or* in words like *reader*, *collector* and *writer*). Exceptionally, some bound morphemes (e.g. *cran-*) are called "bound base morphemes" and they do not have meaning on their own; they are meaningful when attached to other morphemes. For example, *cran-* can merely occur with *berry* (*cranberry, huckleberry*).

Bound morphemes are either *derivational* or *inflectional*. Derivational morphemes are used to create new words or "make words of a different grammatical class from the stem" (Yule, 2010, p. 69). For example, the addition of the derivational morpheme *-less* changes the noun *help* to the adjective *helpless*, whereas adding *un-* to the adjective *happy* creates the adjective *unhappy*, keeping the word class. Inflectional morphemes are used to denote some aspects of the grammatical function of a word. There are only eight inflectional morphemes in English (Table 1).

Table 1. Inflectional morphemes of English

English Inflectional Morphemes		Added to	Examples
-s	plural	*Nouns*	*Bodrum attracts many international tourists.*
-'s	possessive	*Nouns*	*Bodrum's roads are narrow.*
-er	comparative	*Adjectives*	*Bodrum has narrower roads than Didim.*
-est	superlative	*Adjectives*	*Bodrum has the narrowest roads.*
-s	3rd person singular present tense	*Verbs*	*Bodrum attracts many domestic tourists.*
-ed	past tense	*Verbs*	*Herodotus lived in Bodrum in the 5th century BC.*
-ing	progressive	*Verbs*	*Angie is living in Bodrum.*
-en	past participle*	*Verbs*	*She has written "Secrets of Turkish Cooking."*

* The regular past participle morpheme is *-ed*, identical to the past tense form *-ed*. The irregular past participle form *-en* is used to distinguish the two.

2.3. Morphological awareness (MA)

MA refers to "… children's conscious awareness of the morphemic structure of words and their ability to reflect on and manipulate that structure" (Carlisle, 1995, p. 194). In other words, it means the explicit knowledge of the smallest meaningful units of language, including derivational (e.g., *-er/-or, -tion, un-, re-*) morphemes (i.e., suffixes and prefixes) and inflectional (e.g., *-ed, -s, -ing, -est*) markers (i.e., suffixes). Karimi (2012) emphasizes that learners with MA can better understand the morphemic structure of words and thereafter reflect upon as well as manipulate this word structure in order to have a greater understanding of the overall meaning of the word. MA is frequently associated with the development of reading and writing skills (Liu and McBride-Chang, 2010), ensuring that reading comprehension translates into better writing skills (Kieffer and DiFelice Box, 2013).

MA is viewed as an important component of linguistic knowledge since "morphemes have semantic, phonological and syntactic properties that clearly express the role of a particular word in its linguistic context" (Karimi, 2012, p. 452). Not only does it enable students to critically figure out meanings of words from their constituent elements, but a distinct awareness in morphology presents students with the opportunity to be more familiar with the writing system present within a language. In this regard, students are in a better position to decode spelling as well as sound irregularities especially in the case where within a given text there appears to be more than one way to present sounds (Karimi, 2012). It can also be asserted that students will be more at ease in learning English if they have knowledge of the more common root word and are therefore able to break down the word to a more understandable form.

3. Implications for English language teaching

English morphology includes knowledge of both derivational and inflectional morphemes. While an awareness of inflectional morphology develops grammatical accuracy, an awareness of derivational morphology plays a significant role in promoting students' vocabulary knowledge. Nagy and Anderson (1984) estimate that 60% of the unknown words which English readers encounter in texts have meanings that may be predicted on the basis of their component morphemes. Similarly, Kieffer and Lesaux (2012a) state that students who understand how words are created by joining suffixes, prefixes, and roots have greater breadth of vocabulary. This aspect of MA is linked

directly to students' ability to build up their vocabulary. This is largely because the large majority of English words have meanings that can be deciphered based on the separate parts of the word (Kieffer & DiFelice Box, 2013).

It is also fair to suggest that MA may be particularly useful for acquiring academic vocabulary. Although many researchers find it difficult and complex to define academic vocabulary, they agree that this domain includes words which 1) are used as tools for academic purposes, 2) carry abstract meanings, 3) originated in Latin/Greek, 4) are polysemous, 5) include cross-disciplinary words as well as discipline- or domain-specific words, and 6) are used for grammatical metaphor (Kieffer & DiFelice Box, 2013). Thus, learners with well-developed derivational MA who meet such words as *empowerment*, *productivity*, or *decentralization* may be better able to deduce meaning by understanding their relationship with the more common words *power*, *produce*, and *center*, thereby broadening their vocabulary items.

Studies carried out on reading and MA reveal that in many instances students with the ability to break words into their meaningful parts not only build up their vocabulary but also have a better comprehension of reading and therefore build up their skills in writing (Kieffer and Lesaux, 2007; Karimi, 2012). An awareness of derivational morphemes often gives students an indication of word meaning and thus acts as a guide in enabling better comprehension of words and texts (Kieffer & Lesaux, 2012b). It has also been argued that morphological awareness shares a link with a student's ability to, not only describe complex words, but also indicate his/her ability with regard to reading comprehension and writing (Ginsberg et al., 2011).

A critical awareness of both morphology as well as phonology has an impact on language learners' ability to both listen and speak efficiently in English. Indeed there is a relationship between learners' knowledge of the base form of the word and their ability to recognize words efficiently enough to be able to speak in a coherent manner (Kieffer & Lesaux, 2009). Given that morphology pays a critical role in aiding language learners effectively pick up vocabulary, a keen knowledge of derivational morphemes will aid them in significantly improving their listening and speaking skills as well. Indeed, language learners benefit significantly from the use of morphology to critically determine word meanings that are crucial towards ensuring that they improve their listening and speaking skills. Moreover, MA aids the students in detecting semantic irregularities and therefore has a greater understanding of the meaning associated with different words in English. This is significant since it impacts on their pronunciation skills (Kieffer & Lesaux, 2009).

Drawing upon previous research reports and studies, some authors propose instructional strategies that can be used to promote students' MA in language classrooms. These can be summed up as follows:

- Teaching morphology explicitly as a separate component of vocabulary instruction.
- Promoting learners' morphological awareness *as a cognitive strategy* through explicit steps in which learners: 1) recognize that they do not know the word, 2) analyze the word for recognizable morphemes, both in the roots and suffixes, 3) think of a possible meaning based upon the parts of the word, and 4) check the meaning of the word against the context.
- Teaching learners to recognize the use of prefixes, suffixes, and roots, and how words are transformed.
- Teaching learners true cognates – words with similar spelling and meanings in English and the native language – to help their reading comprehension. (Kieffer & Lesaux; 2009; Yopp, Yopp & Bishop, 2009; Kieffer & Lesaux; 2012a, 2012b; Kieffer & DiFelice Box, 2013)

When language teachers introduce their learners to these strategies such as recognizing morphemes in reasonably common vocabulary, learners may be able to apply their knowledge of morphology to words they are not familiar with or familiar but encounter in a different morphological form. In order to enhance their students' MA, language teachers can implement a variety of activities (e.g., semantic maps; cut, mix, and match; find the word; find the word that begin with *un-*) that can be adjusted to suit each age group. For example, they could start morphology instruction for young learners with simple words and go on with more complex words (Graves, 2006; Yopp et al., 2009). They could embark on this instruction for adolescents and adults with morphologically more complex words. See Appendix A for a list of common English morphemes that teachers can include in vocabulary instruction activities for promoting morphological awareness of English learners.

4. Conclusions

Morphological awareness refers to individuals' explicit knowledge and awareness of the internal structure of words and their capacity to reflect upon and manipulate that structure (Carlisle, 1995, p. 194). It includes learners' knowledge of both derivations and inflections in language together. As a recent focus of research in both L1 and L2 literacy development, it has especially been examined with regard to skills including reading, writing, spelling development as well as a student's ability to acquire vocabulary. Language learners who can recognize how English words are formed by joining prefixes, suffixes, and roots are more likely to acquire more words, comprehend texts better, and in turn become more proficient in writing. A number of researchers have argued that the use of derived words is key to ensuring that learners are able to understand and practice vocabulary.

Language teachers can take up teaching morphological awareness in the classroom as part of explicit language instruction by adopting some instructional strategies that can be adjusted to suit each age group. One way is to teach learners derivational morphology explicitly and make it a distinct component of normal vocabulary instruction. Second, asking learners to break down words into their morphemes is a "cognitive strategy" that can be used to promote their morphological awareness of English. Third, language teachers could teach their learners how prefixes, affixes and roots are used to form new words form existing ones. Beyond this are a number of cognate words with similar spelling and meanings in English and the native language that may aid learners in reading texts. To sum up, implications for teaching and learning are significant as recent research reveals that learners with MA have better language performance as well as larger vocabulary and better comprehension. The contents of L2 vocabulary instruction lessons should include teaching morphological awareness as in L1 literacy development endeavors.

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Appendix A. Most common prefixes and suffixes in English

Prefix	Meaning	Key Word	Suffix	Meaning	Key Word
anti-	against	antifreeze	-able, -ible	can be done	comfortable
de-	opposite	defrost	-al, -ial	having characteristics of	personal
dis-*	not, opposite of	disagree	-ed*	past-tense verbs	hopped
en-, em-	cause to	encode, embrace	-en	made of	wooden
fore-	before	forecast	-er	comparative	higher
in-, im-	in	infield	-er,	one who	worker, actor
in-, im-, il-, ir-*	not	injustice, impossible	-est	comparative	biggest
inter-	between	interact	-ful	full of	careful
mid-	middle	midway	-ic	having characteristics of	linguistic
mis-	wrongly	misfire	-ing*	verb form/	running
non-	not	nonsense		present participle	
over-	over	overlook	-ion, -tion, -ation, ition	act, process	occasion, attraction
pre-	before	prefix	-ity, -ty	state of	infinity
re-*	again	return	-ive, -ative, -itive	adjective form of a noun	plaintive
semi-	half	semicircle	-less	without	fearless
sub-	under	submarine	-ly*	characteristic of	quickly
super-	above	superstar	-ment	action or process	enjoyment
trans-	across	transport	-ness	state of, condition of	kindness
un-*	not	unfriendly	-ous, -eous, -ious	possessing the qualities of	joyous
under-	under	undersea	-s, -es*	more than one	books, boxes
anti-	against	antifreeze	-y	characterized by	happy

*Most frequent. The four most frequent affixes account for 97% of prefixed and suffixed words in printed English.