ARTICLE INFO

Article history:
Received: 17 March 2014;
Received in revised form: 25 April 2014;
Accepted: 10 May 2014;

Keywords
Sound symbolism, Non-arbitrary relationship, Speech signal.

INTRODUCTION

Existence of a certain type of relationship – arbitrary, non-arbitrary – between sounds and the reflected meaning in their referents has long been discussed; a hot topic of structural linguistics over the centuries, this systematic relationship between the sound and meaning of the words has conventionally been termed “Sound Symbolism”. The nature of the relationship between sound and meaning being arbitrary was proposed by Ferdinand de Saussure (1857-1913), who denied the natural expressiveness of words. What he believes is that onomatopoeic words are mere conventionalized forms. Saussure drew attention to the nature and composition of language and its constituent parts (Bressler, 2011). Through his investigations with the synchronic approach to the study of languages, Saussure rejected the mimetic theory of language structure. This treatment of the arbitrary relationship of sounds and meanings, which paves the way for the development of abstract terms as well as the possibility to talk about events distant in time and place, was supported by the American linguist, Charles Hockett (1958, 1963) and also the English linguist John R. Firth (1964), who concurred that the semantic relation between the physical features and the conveyed meaning of words is arbitrary rather than iconic (Allot, 1995). However, there are exceptional instances that showcase quite the contrary. According to Bybee (1985), Languages with expressed morphology reflect aspects of meaning within a word’s phonology. Given that certain sounds in words elicit high degree of agreement in terms of the extent to which they reflect semantic distinctions, this suggests that such sound-meaning relationships could implicitly influence the labels developed for referents, and these labels may be those utilized in the very first words of human language (Paget, 1930).

Nordberg (1986) states sound symbolism: “is the synesthetic combination of a certain sound or sound sequence with a particular notion or a particular connotative content.” According to Nuckolls (1999), linguistic sounds do more than communicate an unlimited number of messages. They express our emotional states, aesthetic appreciation, and the alignments and interrelations we have with other members of our social world, none of which can be neatly separated from denotational reference (Nuckolls, 1999). Linguistic communication clearly relies on a basic set of arbitrary sound-meaning pairings; however mounting evidence suggests that a significant proportion of sound-meaning pairings also include various types of non-arbitrary relationships (Nuckolls, 1999). Arbitrariness may give way at a more localized level in the vocabulary, such as the language-general occurrence of phonaesthemes, e.g., words beginning with sn- tend to relate to the nose (e.g., sneeze), and str- commences words often referring to collisions (e.g., strike) (Bergen, 2004; Bloomfield, 1933; Wallis, 1699).

The first discussions in this field date back to as early as Plato, who in the dialogue Cratylus argues: “Everything has a right name of its own, which comes by nature. A name is not whatever people call a thing by agreement, just a piece of their own voice applied to the thing, but there is a kind of inherent correctness (orthoteta tina on onomatop ephukainen) which is the same for all men, both Greeks and foreigners.” Plato’s argument for the non-arbitrary nature of the relationship between the sound structure and the meaning of the referents has been supported by more recent linguists such as the Danish linguist Otto Jespersen. Jespersen (1922) states “Is there really much more logic in the opposite extreme which denies any kind of sound symbolism (apart from the small class of evident echoism and ‘onomatopoeia’) and sees in our words only a collection of accidental and irrational associations of sound and meaning? Sounds may in some cases be symbolic of their sense even if they are not so in all words. There is no denying that there are words which we feel instinctively to be adequate to express the ideas they stand for.” In other words, Jespersen

ABSTRACT

Sound symbolism is the term for a hypothesized systematic relationship between sound and meaning (Hinton, Nichols, & Ohala 1994). There has been considerable speculation and anecdotal evidence on this point from ancient times up to the present time (de Brosses 1765; Jespersen 1933). Reportedly, this correspondence between sound structure and meaning of words has been suggested to facilitate language acquisition and the process of word learning in both children and adults. With this in mind, the present study investigates the influences made by the relation between sound structure and meaning of the words in English – sound symbolism – on Iranian IELTS candidates’ vocabulary learning and application, after being exposed to phonosemantic characteristics of words in English. A number of 60 male and female learners were randomly chosen and divided into experimental and control groups. Both groups were asked to fill out a questionnaire consisting of 40 questions, containing must-learn vocabularies for the test, in two levels of post-test and pre-test. Comparison between the results of pre-test and post-test of the experimental and control groups indicated that this non-arbitrary relationship between sound and meaning and learners’ awareness does influence the vocabulary learning and category distinction abilities of Iranian IELTS candidates extensively.
believes that sound symbolism is a factor which needs to be used as a means helping the more logical, appropriate use of the words; this process has been conveyed even to the modern times, as an instance, it has been applied in the early observations made in the children’s early verb learning such as Mutsami Imai et all's Sound Symbolism facilitates Early Verb Learning.

The studies carried out in the field of second language acquisition have involved phonosemantics as well; especially in the vocabulary learning process of the second language learners. A number of researches carried out on this basis include: Lynn C. Nygaard’s “Sound Symbolism in Word Learning” and “Sound to Meaning Correspondences Facilitate Word Learning”, Mutsumi Imai’s “Sound Symbolism in Early Verb Learning”. All the above mentioned studies indicate the influential role phonosemantics plays in the vocabulary comprehension, learning and application of second language learners.

Language learners, either children first acquiring a set of sound-meaning pairings or second language learners acquiring a non-familiar mapping between sound and meaning, could exploit non-arbitrary associations between sound structure and meaning. This mechanism could facilitate both first and second language learning (Nygard et al, 2010). With this in mind, it was hypothesized that the Iranian IELTS test takers, who learn and acquire new words in English as their second language, can also recognize such mappings between the sound and the meaning of the words. Therefore, the present study was designed to assess the degree to which Iranian IELTS test-takers are able to spot the patterns of sound to meaning correspondence between the words and make use of them in the process of learning novel words, as well as their comprehension and application of such words in new sentences.

Method
Participants
The study participants were chosen from two branches of the same institute, girls language school and boys language school, were 60 in number – ranging from 20-50 years of age, males and females –divided into four classes of experimental and control groups, all following the same syllabus. The participants were given two sets of tests(pre-test and post-test, consisting of multiple choice questions) at the beginning and the end of five sessions of an IELTS course, along with a general post-test – consisting multiple choice and close test questions – taken at the end of the course.

Procedure(s)
As mentioned above, the participants in both the experimental and control groups were given a pre-test from the list of the words they were scheduled to learn during that session in the beginning of the class. In the control groups the material was taught according to the usual, standard drills with no specific reference to the sound symbolic nature of words. The taught material was practiced in context, provided by the teacher. At the end of each session the students were asked to take a post-test consisting of vocabulary material learnt during the session. The material in the experimental groups was taught not only according to the standard drills, but also with a direct reference to the sound symbolic nature of words and was practiced in a context brought up by the teacher. This process was carried out for five sessions of the course. At the end of the course a general post test, consisting of multiple choice questions and close tests, was taken by both the experimental and control groups.

Results
According to the results obtained from the present studies, the sound symbolic nature of words does play an influential role on the vocabulary comprehension, learning and application of the IELTS test-takers in Iran.

Sound symbolic words regarded in this study consisted 28% of the word lists taught during those five sessions of the course. A general observation indicates that the participants were more alert and sensitive towards words with a sound symbolic pattern – specifically, onomatopoeic words. The participants’ pre-tests results – of both the experimental and the control groups – prove the fact that the patterns of sound to meaning mappings in sound symbolic words do help language learners to better distinguish the perceptual properties of the words. Nevertheless, the results to the general post-test taken at the end of the course signal the very fact that the experimental group, who were exposed to the sound-symbolic patterns of words, as opposed to the control group, who were not exposed to the mentioned pattern performed considerably better.

In addition, a narrower investigation of the test results indicates that approximately 87% of the experimental group participants quite easily and correctly could match the onomatopoeic words with either their definitions, synonyms or antonyms in the pre-tests and also quite positively remembered the definitions, synonyms or antonyms of the words with an onomatopoeic pattern in the post-tests at the end of each session and the end of the course.

The results obtained from our studies lead us to this understanding that learners would acquire the equivalents more quickly and accurately, when exposed to sound-meaning mappings. And also their sensitivity towards such words is of use in response times. Thus, as stated by Nygaard, 2009: “If sound symbolic relationships exist in spoken language and word learners are sensitive to non-arbitrary relationships between sound and meaning, response times to identify the meanings of newly acquired words would be faster.”

The points discussed above support the major finding of this study, which indicates the fact that the matching of the words to their meanings based on a sound-symbolic pattern facilitates the lexical knowledge and also the vocabulary access of Iranian IELTS test takers quite noticeably.

Discussions and Conclusion
This study investigates the potential influence of sound symbolic patterns in the sound to meaning relationship of certain words in English on the ability of Iranian IELTS test takers in acquiring those words and using them in the appropriate context. Given that these learners have to cover a sizable amount of new vocabulary, the results of our study point to the fact that sound symbolic properties of words in English can be influential in the process of encoding and retrieval of the meaning of novel words. Although arbitrariness certainly remains a central design characteristic of linguistic structure, these results indicate that language users can and do exploit nonarbitrary relationships in the service of word learning and retrieval (Nygard, 2010).

The findings of the present study are in line with the previous studies done in the same field of linguistics, by many towering figures in this field. Properties of the sound structure of a language may activate or resemble characteristics inherent in the object, event, or property to which the sound sequence refers, and language learners may use this inherent cross-modal mapping to facilitate the retrieval of word meaning (Nygard, 2009). Learners chose correct vocabulary equivalents more often when the word form and meaning matched than when the learned meaning was unrelated to the actual meaning (Nygard,
Learners appear to incorporate both sound properties of language and linguistic form into the process of associating unfamiliar words with meanings (Nygaard, 2010).

Given that language is not exclusively comprised of arbitrary relationships, these findings suggest that non-arbitrary relationships and sound symbolic structure have psychological functionality during language processing. Not only do learners encode and represent the sound properties of language, but they also recruit this sensitivity within the complex, and arguably taxing, cognitive task of associating novel words with meanings. (Nygard, et al, 2010).

This research demonstrated that Iranian IELTS test takers are positively sensitive to the sound-symbolic patterns between new lexical items and their meanings. Furthermore, our studies showcase the fact that this sound meaning relationship of words, as was mentioned earlier, facilitates the lexical acquisition, comprehension and application of Iranian IELTS candidates.

References