

**“Applying Markedness Theory
(MT) in the Syllable
Structure of English Acronyms”**

Dr. Rand Zuhair Younis

Al-Noor University College

Asst. Prof. Dr. Anmar Hammodi Saeed
University of Mosul

Abstract

This study is an attempt to shed light on markedness theory by applying certain criteria of markedness on a corpus of acronyms to find the marked and unmarked syllable structures in these words. This study is hoped to contribute to the literature of phonological studies and MT. This study aims to address the phonological make-up of the acronyms by giving a full account the suprasegmental feature namely, syllable structure and to distinguish the marked and the unmarked structures by using certain criteria based on the suprasegmental features of those acronyms. These criteria are structural complexity (simple or complex), frequency of occurrence (frequent or less frequent), and common and uncommon patterns. The present study builds on the hypothesis that acronyms are structurally simple words in that they are composed of a restricted number of syllables, one or two maximally and their syllables mostly consist of simple, non-branching, onsets and codas. The methodology used in this study is descriptive. The research is accomplished by examining 50 acronyms as data of different structures. Data analysis has demonstrated that the majority of the acronyms are monosyllabic, disyllabic and few of them are trisyllabic.

”دراسة عن تركيب المقطع للألفاظ الأوائلية في اطار نظرية المُعلم (ن.م)”

المُلخص

هذه الدراسة هي محاولة لإلقاء الضوء على (نظرية المُعلم) وذلك بتطبيق معايير معينة من هذه النظرية على مجموعة من الالفاظ الاوائلية لإيجاد التراكيب المعلمة والغير معلمة في هذا النوع من الاختصارات. ومن المؤمل ان تكون هذه الدراسة اضافة لتاريخ دراسة البنية الصوتية ونظرية المُعلم. تهدف هذه الدراسة الى معالجة التكوين الصوتي للألفاظ الاوائلية وذلك من خلال اعطاء وصف مفصل لواحدة من الصفات الفوق مقطعية وهي تركيب المقطع والتمييز بين التراكيب المعلمة والغير معلمة للألفاظ الاوائلية وذلك باستخدام معايير مستخلصة من نظرية المعلم. والتي تشمل التركيب الصوتي لمقاطع هذه الكلمات (بسيط او معقد), (مكرر الحدوث او اقل شيوعا), (مألوف او غير مألوف). تستند هذه الدراسة على فرضية ان الالفاظ الاوائلية تشكل اتجاها منتظما باتجاه التشكيل الجديد من الكلمات حيث انها هيكلية كلمات بسيطة تتكون من عدد محدود من المقاطع وعادة تكون المقاطع المتكونة غير متفرعة سواء ببدايتها او خاتمها. ان المنهجية المتبعة في هذه الدراسة هي وصفية. وللقيام بالتحليل تم جمع (50) كلمة من الالفاظ الاوائلية ذات تراكيب مختلفة, وقد اثبتت تحليل البيانات ان الغالبية من الاختصارات هي احادية , ذات مقطعين و عدد قليل منها ثلاثية المقطع.

1. Preliminaries

The study is a general theoretical background on acronyms and presents an account of 'Markedness Theory (MT)' throughout surveying its history and the inception of the term, viz. markedness and its employment in phonological theory. A set of criteria has been established, based on our reading the literature of this theory, to be applied to the selected corpus to find out the marked and unmarked syllable structures among these words.

The term "abbreviation" refers to any shortened form of a word or a phrase (Pyles,1971:300). The resulted forms are known as alphabet-based abbreviations and they include forms such as clippings, blends, acronyms. Acronyms are a form of abbreviation that has acquired a lexical status in current English speech. Words such as 'LAZER', 'NASA', 'FIFA', are pervasively used nowadays and very few people know their origin or source.

As Anastassiadis-Symeonidis (1986:211,17) puts it, such an abbreviation of the written form of a language can be transformed into a unit of the spoken form and as a consequence become an acronym.

The benefit of using abbreviations is usually clear and is sometimes a temptation. It saves effort and time that is entirely justifiable under certain conditions. The 20th century had witnessed the popularity of abbreviations by the widely number and size of dictionaries. The practice of abbreviating terms has become quite convenient in the 20th century because many sciences and technology brought with them more complicated terms and concepts such as business, industry, education, and government field (Mirabelle, 2009: 558).

2. The Acronyms

Acronyms as an abbreviation of possibly multi-word , complex expressions through mechanisms based on the association of some letters in the acronym. The most commonly used definition of acronyms is that they are "one of the kinds of abbreviation formed from the first letter(s) , or may be a syllable of a long base words (either clause or phrase), so ordered that the resulting series of letters is usually pronounced as a word and they are spread among users and entered English dictionaries for their learnability" (Bussmann, 1996:1).

2.1 Types of Acronyms

The increasing number of acronyms is an indication to the fact that they have become a vastly important word-formation pattern. With the development in communication means, devices and styles, various kinds of shortenings and reduced forms appeared and have been integrated within the umbrella of abbreviations. These include acronyms where various types of these can be recognized:

- ‘Pseudo-acronyms’ are one of the types of acronyms. In some cases, an acronym or an initialism has been redefined as a non-acronymous name, creating a pseudo acronym. For instance:

KFC stands for (Kentucky Fried Chicken) (Mirabella 2009:559).

- ‘Partial acronyms’ are the second type of acronyms. In fact some linguists in their definition of acronyms included a sense of blending process and call this process as an acronym, for instance:

Trade (Training Device) (Kleindler 1993 cited in Mirabella, 2009:559).

- ‘Immigrant acronym’ is an acronym where foreign words are adopted into English for instance:

RSVP stands for (répondez s’il vous plaît) (Via the net, 1).

- Another Type is ‘hybrid acronym’ that has the features of both letter acronyms and syllable acronyms for example:

MS.DOS stands for (Microsoft Disk Operating System) .

- Nested acronym is an acronym where one of the letters represents another acronym as in:

ATM stands for (AOL Instance Manger).

- Whereas ‘Recursive acronym’ is the same as recursive initialism which refers to itself in the expression for which it stands just like:

VISA that is formed from “Visa International Service Association”.

- The last type of acronyms is ‘redundant acronym’ that is a phrase of an acronym. It is an abbreviation which makes up an acronym as well as the phrase itself, thus in effect repeating the part of acronym twice for instance:

PIN number, Ram memory and ISBN number . For more details and types (Via the net, 2).

2.2. Formation of Acronyms

Each acronym consists of several formatives. According to (Kastovsky (1982:70) cited in Lipka (2002:108), formatives or pseudo-morphemes are meaningless parts of morphemes which are only relevant on the syntactic or phonological level. For Beaur (1983:16), a formative is also a segment representing a morph: “a formative is defined as a distributional segment of a word-form independent of whether or not it is also a morph”.

The general rule for acronym formation could be stated as follows: “an acronym is formed by taking the initial letters of the words in the main (usually noun) phrase except for those optional initial letters of function words, viz. articles, prepositions, or conjunctions (Fijo, 2002: 241). For instance, **ASH** from (Action on Smoking and Health) which includes the initial (only the initial) of the three nouns and ignores the function words (on / and) . Fromkin et al. (2003: 96) claims that acronyms mostly consist of three letters up to seven letters, usually all capital. An acronym may be derived from the letters of its base phrase (short phrase that contains two words up to eight words). For instance: **HOPEFUL**= Hard up Old Person Expecting Full Useful Life.

More intensively, some acronyms may be built on acronyms, for example:

PROM=Programmable Read-Only Memory is built on **ROM**

ROM = Read Only Memory and

EPROM=Erasable Programmable Read Only Memory is created from (**PROM**).

An acronym can also be formed from the first letters of the syllable in long polysyllabic words such as : **PABA**=Paraaminobenzoic acid.

Occasionally, some acronyms might be due to the association of the common plural ending ‘s’. Final {s} is reinterpreted as the plural form, as in: **MIPS** (Million Instruction Per Second). (Fischer, 1998:33) (cf. **AIDS**, ‘s’ refers to the word syndrome) In many cases , more than one letter is taken from the beginning of one or more of the words in the original phrase as in : **Arvin** =Army of the Republic of Vietnam Ghost. (Bauer, 1983: 238).

Some acronyms like **ATM** (Automatic Teller Machine) & **PIN** (Personal Identification Number) are regularly written with one of their elements repeated as in :

I sometimes forget my PIN number when I go to the ATM machine(Via the Net, 2).

Sometimes acronyms take the first letter (not sound) from the base words such as : **CAB**=Civil Aeronautics Board And at other times , acronyms take the sounds (not letter) of a base such as: **CAL**=Computer Assisted Learning.

Moreover, there can exist an acronym which is derived from more than one letter from the preposition in the origin as in: **AWOL**=Absent Without Leave So, many cases of forming the acronyms (Ibid).

To sum up, acronyms appear as a class of reduced formations highly respective to lexicalization (Visan, 2013:4). They are not formed in a systematic way; a letter may be skipped or the first two letters of a word may be chosen, in order to produce a form which conforms to English phonotactic. They occur especially in the language of politics, administration, military and science and thus are restricted to written language (often in newspapers) or the spoken form of technical languages (Via the net,3).

2.3 The Structure of Acronyms

Actually, acronyms have been created from different types of clauses, phrases or even individual words, synchronically seen, acronyms are free morphemes, they are a combination of parts of morphemes or formatives. The main phrase (base form) is relevant if the speaker/hearer associates it with corresponding acronym (Fischer ,1998 :29). To understand the structure of acronyms, it is necessary to illustrate the structure of the base phrase of acronyms. The structure of the form is similar to block language (cf. Quirk et al 1985: 845 cited in Fischer,1998:30). Phrases, clauses or sentences are reduced and changed to form new words. Function words (i.e. grammatical morphemes) such as determiners and pronouns tend to be especially absent. The complexity of base goes back to the number of words and the syntactic complexity of phrases, clauses and sentences. (Fischer,1998:29-30).

Table (1) the Structure of Acronyms (Ibid)

No.	Base Form	Example
I.	Noun Phrase	
1.	Of nouns and adjectives	QUANGO (Quasi-Autonomous Non-Governmental Organization)
2.	Of nouns	PINC (Property Income Certificate)
3.	Of nouns and participle	VAN (Value-Added Network)
4.	Of nouns and prepositional phrases with nouns	MIRAS (Mortgage Interest Relief At Source)
5.	Of nouns and non-finite clause	CREEP (Committee to RE-Elect the President)
6.	Of nouns and at least two of the categories adverb, adjective, prepositional phrase participle and others	NOW (National Organization for Women)
II.	Clauses	
1.	Reduced clause /sentence	JIT (Just In Time)
2.	Complete sentence	TINA (There Is No Alternative)

To conclude, from what is reviewed above explanation we gather that an acronym consists of letters (not sounds) that are pronounced according to the group of letters in each acronym. They are orthoepically pronounced words rather than being alphabetically pronounced sequences. Additionally, they considerably differ in structure and formation.

2.4 The Role of Function Words in Forming Acronyms

Function words tend to be ignored in the process of acronymy in order to keep the acronym manageable as in **WLSA** stands for Women and Law in Southern Africa. Also the same with the initial letters of articles or prepositions are excluded as with **GATT** which stands for General Agreement on Tariffs and Trade. Excluding function words may

simplify the retention and production of these words. **GATT** is easier to remember and pronounce than **GAOTAT** would be. The deletion and addition of prepositional words, or any grammatical words, are very normal processes. The abnormal way, however, is the deletion of lexical words that are available in the origin but excluded in the formation of acronym. (Fandrych, 2008:111).

2.5 The Function of Acronyms

The main purpose of acronyms is to create a term that is not only linguistically economical but also mnemonics (i.e. easy to memorize). Thus an acronym may include the initial letters of grammatical words in the main phrase so that it can be pronounced as a word instead of a sequence of letters, for instance: **AWACS** is formed from (Airborne Warning and Control System) (Fabijanić and Malenica 2013:70).

2.6 Some Reasons for Using Acronyms

Obviously, the incentive for initiating acronyms is either brevity or catchiness in both speech and writing. Accordingly, succinctness and perfection are highly valued and acronyms can contribute greatly to concise style. Additionally euphonism may be one of the reasons for coining acronyms, for instance **BO** stands for (**Branch Office**) (Pyles 1971:299). Furthermore, acronyms help convey a sense of social identity (i.e. the group to which it tends). Writers and speakers may waste time and space if such acronyms are stated fully and it would be strange indeed to hear someone routinely expanding **Visa, AIDS, UNESCO, and ROM** and all other famous acronyms of contemporary English. A further reason is that acronyms have been daily added to lexicon because of the wide spread of the internet and the expansion of social communication. For instance: **MORF** (Male Or Female), **FAQ** (Frequently Asked Question) .(Fromkin et al, 2003: 96-97).

2.7 The Spelling of Acronyms

Acronyms are nowadays no longer spelt with capital letters and for the majority of speakers these forms are no longer related to the words they were originally abbreviated from, for instance (**Radar**). (**Radar**) was coined in 1941 as an acronym for (Radio Detecting And Ranging).

The term has since lost the capitalization, entering the English language as a standard word, radar (Plag, 2006:538).

Some acronyms sound like common words but are spelled differently. For example, the acronym for Synchronized Multimedia Integration Language , **SMIL**, is pronounced like the English word "Smile" (Via the net,4). The use of capital letters in the spelling of some of these words reflects the fact that speakers are aware of their acronymous status. If the conventional way of reading the string is by pronouncing the name of each letter in turn, as with USA /ju: es eI/ than it is not an acronym but an abbreviation. (Via the net,5).

2.8 The Pronunciation of Acronyms

The pronunciation of acronyms is by applying the regular reading rules and acronyms can be spelt with either capital or lower case letters as in (Nato, nato) , when an acronym becomes fully accepted as a word, it often comes to be spelled with lower case letters just like other words (radar, sonar, aids) (Stockwel and Minkova, 2001:7).

Acronyms have a distinctive feature from other kinds of abbreviation which is they could be pronounced . Acronyms are different in terms of the number of letters they contain, some of them contain 3 letters, others 4 letters, up to 8 letters. The longer the word is, the more likely it will be pronounced orthoepically. Conversely, the shorter the word, the more likely its letters will be recited. (Fischer, 1998:30).

Acronyms being pronounced like regular words must conform to the phonological patterns of English which can create problems in applying regular reading rules if the reading out would result in illegal phonological words.

With reference to the pronunciation of acronyms, formatives which are chosen as a sequence are pronounceable according to the phonological, phonotactic and syllabic conditions within the English language . The initial letters (either consonants or vowels) of the words of the base from yield a pronounceable unit, e.g. **GIGO stands (Garbage in Garbage out); NIMBY stands (Not In My BackYard) and PIN (Personal Identification Number)** (Fischer, 1998:30).

2.9 The Phonological Structure of Acronyms in English

Within the phonological structure , the focus will be on most important suprasegmental features namely, syllable structure. In order to form the new words (i.e. acronym) in English from a phrase or clause by process of acronymy, one should know the rules of distribution of sounds and phonotactic constraints in phonology of English to produce suitable words that can be pronounced as common words in the language. These rules are crucial because they help us judge the new word formations as being acceptable words or not. By knowledge of the permissible sounds in the language and their distribution, and the permissible sequences they may come in words will lead to form suitable forms that might be easier to pronounce , to memorize and to enter the dictionary.

3. Phonology in English

Crystal (2003:352) remarks that there are many sounds in English which are useless unless they are arranged to produce meaningful words and that is what is called ‘phonemes’. While Roach (1988:35) states that there may be slightly different realizations of the various phonemes but the most important thing for communication is that we should be able to make use of the full set of phonemes and this is the main concern of phonology since it deals with the sound system and patterns of the language of English language.

In fact, Fromkin et al. (1988:95) claim that all who know a language, certainly know phonemic representation of words, their phonetic pronunciation and what these forms mean. This knowledge is stored in the mental dictionaries of native speakers when one refers to a certain word, the other surely knows the sounds that represent that word, also the appropriate sequence of the sounds that make up that word, the pronunciation that carries the sound, even the features of each segment, also the syllable structure of the word.

Additionally, They say that ‘the relationship between the phonemic representations that are stored and the phonetic representations that reflect the pronunciation of these words is (rule governed)’. These phonological rules relate the minimally specified phonemic representation and are part of a speaker’s knowledge of the language . These facts are part of phonology. (Ibid:98)

However, phonology is an integral part of the subject of phonetics and is not a separate term. Phonology is ‘the branch that is available in

every language and is peculiar to that language''(Abercrombie, 1968:70). Furthermore, Ladefoged (1975:40) states that the phonology of a language is the set of rules that describe the changes in the underlying sounds when they occur in speech. The underlying sounds are abstract and they are called phonemes. What follows, the focus will be on the phonology of English and the rules and patterns that determine the pronunciation of words namely, acronym in this language. The review will mainly involve suprasegmental dimensions, viz. syllable structure.

3.1 The Syllable: Definition and Nature

The syllable is one of the phonological units that has received great attention and has a long standing in the different phonological theories. It is often demonstrated that the phonetic and phonological properties of the syllable are needed in the process of the analysis of speech. Knowledge of the nature and structure of the syllable has been shown to minimize the complexity of the identification of the syllable in a language and help understanding the structure of speech.

The study of the syllable in recent decades has been an integral part of the development of theories of phonological representation and to a lesser degree part of the development of theories of rules, constraints and their interpretations (Goldsmith, 2011: 164). Thus it is often stated that in order to be able to describe and compare the pronunciation between the original words and the new entries, it is better to analyze speech or to split up into units the unbroken stream of movements and the resulting sounds that constitute an utterance are called syllable (Crystal 2003:447).

There are two main approaches to the study of the syllable: phonetic and phonological. Phonetically, syllables are usually "described as consisting of a centre which has little or no obstruction of the airflow and which sounds comparatively loud, before and after that centre (...) there will be a greater obstruction to airflow and/or less loud sound" (Roach ,2000:70). Phonologically, the syllable is viewed as a complex unit made up of nuclear and marginal elements. Nuclear elements are the vowels or syllabic segments . Marginal elements are the consonants or non-syllabic segments. For more definitions see (Cox et al, 2014:2).

It is less easy for speakers to reflect consciously on the internal structure of syllables or to decide where one stops and the next starts. (McMahon,2002:116, see also Wan-Lung David,2014:6). Vowels and

consonants are used to refer to the phonological function of segments in the syllable . The term consonant being used for the marginal elements, while vowels are used as nuclei of syllables (Abercrombie , 1968: 40).

In English, a syllable consists of a phoneme or a sequence of phonemes. If the syllable receives word stress it can be associated with meaning and forms what is usually called a word. No word in English can consist of anything less than a syllable and no syllable can consist of anything less than a vowel. There are not many examples of monosyllabic words consisting of only a vowel in English. However, we have: are /a:/, or, awe /ɔ:/, eye, I or ay(e) /aɪ/, owe /əʊ/, etc (Forel and Puskás, 2005:35).

3.2 The Structure of the Syllable

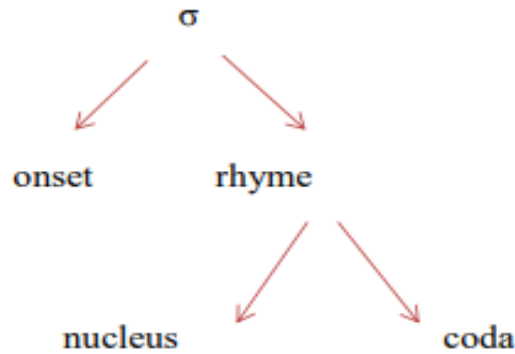
The structure of the syllable involves the arrangement of the units that constitute the phonemic system of the language: consonants and vowels . English language has various types of syllable structures and has its own common patterns in which phonemes are arranged to form larger units (Abercrombie 1968:70).

Structurally, the syllable may be divided into three parts: the peak, the onset and the coda. The most prominent part of the syllable that contains the syllabic segment is called the syllable peak. The studies of both (McMahon 2002:105) contributes to the structure of the syllable and they agree that the obligatory part of the syllable is its head, or more important defining unit is the nucleus or peak. This will generally contain a vowel, recalling that vowels are syllabic sounds. The peak may be preceded by one or more non syllabic elements which constitute the onset of the syllable and it may be followed by one or more non-syllabic elements which constitute the coda .

Each syllable has at least one or more of the constituents shown below: A fairly typical sort of syllable has the structure CVC (Where C =any consonant, V= any vowel). The vowel is called the nucleus (N) which is an obligatory unit of the syllable; the consonants which precede the nucleus are called the onset (O), while the consonants which follow the nucleus are called the coda (Co.). The nucleus and coda are combined to form the rhyme (R) of a syllable (Via the net, 5) A syllable has a rhyme, even if it does not have a coda. That is, the nuclear node will be immediately dominated by the rhyme node. To represent the syllable structure graphically, the following symbols are used: σ =syllable;

O=onset; R=rhyme; N=nucleus; C=coda. Linguists often use tree diagrams to illustrate syllable structure. The universal syllable template accepted by most phonologists is given in the diagram below:

Diagram (1): Syllable Template (Collins and Mees,2003:70)



It is noted that small 'sigma /σ/' is shortened for syllable . Both the onset and the coda are optional constituents. If a syllable has a coda , it is called a closed syllable for instance 'cap'. If a syllable does not have a coda, it is called an open syllable, e.g. 'car' (Collins and Mees, 2003:72). English language has a variety of syllable types namely permits a wide range of structures. Onsets and codas are optional but the nucleus which is usually occupied by vowels, and sometimes by consonants, is obligatory.

3.3 Types of Syllable Structure

Four types of syllable structure are recognized in English, a word that consists of a single syllable is a monosyllable (or monosyllabic), disyllable (or disyllabic) for a word of two syllables; trisyllable (or trisyllabic) for a word of three syllables , and finally polysyllable (or polysyllabic) which may refer either to a word of more than three syllables or to any word of more than one syllable (Via the net, 6) Actually, the data in the practical part are varied and divided to three structures: monosyllabic , disyllabic and trisyllabic and we have no acronym of polysyllabic. The division of structure will make the analysis easier and distinguished.

4. Markedness in Phonology

"Markedness" as a term is originated in linguistics. Hume (2010:79), for instance , mentioned that markedness is one of the most

widely used concepts in phonology and other areas of linguistics. It is used to refer to the "state of standing out as unusual or difficult form in comparison to a more common or regular form.

Markedness, according to Battistella (1990:46) is a concept of evaluation imposed upon phonological structure. Since phonology is a distinct level of language, making up its inner meaning and outer form, parallelism in phonological markedness bears on the hypothesis that markedness is a primitive concept of linguistic structure. In the Prague school tradition, phonological markedness values have historically been defined by the principle of neutralization, syncretization and simplicity.

A marked form within a language might be unmarked in another. The concept of markedness can be applied within a particular language or between languages. Universal markedness relations are defined independent of individual languages . Language-particular values are those assigned on the basis of the facts of an individual language system (Rice,1999: 61).

Generally, the unmarked form is the more frequent option and also the one that has the most neutral meaning. The unmarked form is the 'ordinary' or 'basic' form, while the marked form differs from the first in containing extra material or in being confined to special contexts (Leech 2006:28).

4.1 The Relation of Markedness to Phonological Theory

Markedness has played a crucial role in the development of phonological theories. However , approaches have varied with regard to where the domain of explanation for markedness patterns resides. In one approach, markedness observations are directly expressed in a theory of phonology, while in another, they are the basis for a separate theory of markedness. تحتاج مصدر

According to Chomsky and Halle (1968 cited in Oostendorp et al., 2011: 83) the goal of markedness theory “is to distinguish between more and less natural segments and rules and to determine the degree of admissibility of a given lexical item”. Markedness is no longer treated as a property of the phonologies of individual languages but rather as part of general phonological theory which aims to capture the linguistically significant generalizations characterizing sound systems (hyman 1975:146).

4.2 Types of Markedness

Hume (2010: 79) states that markedness is the most used notion in phonology mainly and other linguistic fields generally. Furthermore she adds that markedness could be stated as follows:

a. Descriptive markedness: An abstract relation holding over members of a set of observations displaying asymmetry, such that one subset is unmarked and the other is marked.

b. Theoretical markedness: A universal laws that guide language acquisition, inventory structure, processes, rules, etc. toward the unmarked form. The theoretical use of markedness has been at the core of modern Phonology and the focus of much debate. Markedness laws form part of a person's innate knowledge of language (i.e. Competence).

Because the methodology of the current paper is descriptive by describing a selected corpus of data within the framework of MT, so the concern of this study will focus on the descriptive type of MT by using certain criteria that will be mentioned later in the next sections. The following table is a summarized to the descriptors of markedness.

Table (2): Markedness Descriptors (Hume,2010:80)

Unmarked	Marked
Natural	Less natural
Normal	Less normal
General	Specialized
Simple	Complex
Active	Inactive
More frequent	Less frequent

4.3 Markedness and Phonological Structure

Markedness with respect to syllable shape is of little debate within phonological theory. There is a universal generalization that the CV syllable is cross-linguistically unmarked. Agreement that the CV syllable is unmarked relative to other syllable shapes for instance CCVC or CVVCC is based primarily on cross-linguistic implication, but also on criteria such as frequency, naturalness, and early emergence in language acquisition (Clements and Keyser, 1983; Clements, 1990 and Blevins, 1995 cited in Rice,2007:81).

Evidence for this claim comes from several sources. A primary one is that many languages do not permit syllables with codas or complex

onsets (e.g. Hawaiian [Austronesian, United States], Elbert and Pukui 1979 cited in Rice,2007:81); those that do permit syllables with codas and complex onsets also allow CV syllable shapes (e.g. English). Based on implication, CV syllables are considered to be unmarked: the existence of, for instance, CVC syllables or of V syllables in a language implies the existence of CV syllables in that language, but not vice versa (Ibid).

Haspelmath (2006: 41) categorizes the senses of markedness found in linguistic literature into four major types: markedness as complexity, markedness as difficulty, markedness as abnormality and markedness as a multidimensional correlation. So when we speak of markedness we are really using shorthand for a number of deeper factors which are in large part extra-linguistic. To conclude , the marked items tend to be complex percepts and acquired later, while the unmarked items tend to be simple percepts and acquired earlier .

4.4 Criteria of Markedness

Givon's (1995:28) writes that three main criteria can be used to distinguish the marked from the unmarked category in a binary grammatical contrast: -

- Structural Complexity: The marked structure tends to be more complex (or larger) than the corresponding unmarked one.
- Distribution Frequency: The marked category (figure) tends to be less frequent, thus cognitively more salient , than the corresponding unmarked category (ground).
- Cognitive Complexity: The marked category tends to be cognitively more complex in terms of mental effort . attention demands or processing time than the unmarked one (Givon,1995:28)

Of these three criteria, structural complexity is the least controversial and the most universally accepted given the contrast between two (comparable) points first and seconds. The more complex of the two is the marked one. The second and third items on Givon's list, however are much less straight forward.

In phonology, the appearance of a marked phoneme in a high frequency word (say a function word, a common morpheme, or a usual expression) could potentially make the instances of that phoneme more frequent than these of its unmarked counterpart (Beck,2002:22).

4.5 Markedness and Syllable Structure

The concept of markedness is universal rather than language-specific. Marked forms are cross-linguistically rarer than their unmarked counterpart or other unmarked forms. Moreover, if a language contains the marked form, it must also contain the unmarked form, which is explained with “if p then q:” Blevins (1995:206). That is, if a language has the marked structure represented by p, it will also have the unmarked structure, represented by q. For instance, complex onsets and codas are more marked than simple onsets and codas. Thus, Blevins (1995:230) goes further to add that if a language contains complex onsets and/or codas, it will also contain simple onsets and codas but not vice-versa.

It is clear that some syllables are more natural than others, that is, they are composed of more natural combinations of sounds. And as individual sounds, the presence in a language of certain syllables implies the presence of other less marked ones. The least marked syllables are beginning with a single consonant and ending in a vowel, somewhat more marked are syllables having only a single vowel; and still more marked are syllables beginning or ending in various types of consonant clusters.

To conclude, the concept of structure deals with syntagmatic relations as they refer to relations which hold between the units present in an utterance. The concept of system deals with paradigmatic relations which hold between units but can be substituted for each other to produce different utterances (Abercrombie, 1968:71).

5. Model of Analysis

After providing a summarized account of Markedness , it is time to focus on the criteria that will be determined as an analytic tool in analyzing the selected data of acronyms. However, the remarkable point through the theoretical review in this study is that there is an agreement among linguists about determining the criteria that distinguishes the marked/unmarked items. Markedness of an element has, generally, been defined as one of the most widely used concepts in phonology and other areas of linguistics which is the state of standing out as unusual or difficult in comparison to a more common or regular form (Hume, 2010:79).

Markedness can be considered successful to the extent that it can be shown that a number of properties correlate with the distinction between marked and unmarked (Bybee 2010:134). Recalling the criteria

summarized in (table:2). A limited set of criteria was chosen to be used as a framework of analysis to the corpus of acronyms collected from different linguistic fields. These criteria of markedness include the following three dichotomies: simple /complex, more frequent/ less frequent, common/uncommon, natural/ unnatural, general/specific, etc. The focus on analysis will be on the syllable structure of acronyms. The natural term (unmarked) is when the words are normal and following the basic rules of English language according to the way formed and syllable structure. The unnatural term (marked) is the opposite of the earlier characteristics.

6. Methodology and Procedure

The acronyms analyzed in this study were taken from different dictionaries of English language and general linguistics. The corpus of data collected comprised 50 acronyms that were chosen to be examined in this study.

The constructed data were taken from different semantic fields: science, sports, trademarks, human organizations ,military, and business, etc. The pronunciation of these words was mainly derived from J.C. Wells' (1990) ‘Longman Pronunciation Dictionary’ and from ‘Oxford Advanced Learners Dictionary (2010)’. The analytical table (Table 4) provides information about each acronym in the following order: acronyms, pronunciation, syllable structure for monosyllabic, disyllabic and trisyllabic structures.

It is worth mentioning that the acronyms in the data are mostly monosyllabic , disyllabic and three-syllable acronyms (i.e. trisyllabic) are less frequent, though. The syllable structure of these acronyms has been analyzed separately for each type of the three structures to come up with definite results with respect to their status as having marked or unmarked structures.

Table (3) :Summary of the syllable Structure of Acronyms in English

		Monosyllable word	Disyllable word	Trisyllable word
No. of acronyms in the data	50	25	19	6

Syllable structure	More used	CVC CVVC	VV.CVCC CVV.VC	CVV, CVC, CV,V, VC, VV
	Less used	V	VVC.VVC	VV.VV.VC

7. The Formation of Acronyms

It is clear that we endeavored to examine the different structures in these words namely acronyms within the principles of markedness theory to see whether they tend to have marked or unmarked structures.

In general , the number of acronyms in the analytical table are 50 words: 25 of which are “monosyllabic acronyms” and 19 of them are “disyllabic acronyms” while the number of “trisyllabic acronyms” is 6 which are the less frequent among the other structures. The following is an account on the formation, syllable structure and transcription of each type: monosyllabic, disyllabic and trisyllabic acronyms.

Table (4): Analysis of the syllable Structure of Acronyms in English

No.	Acronyms	Pronunciation	Number of Syllable	Syllable Structure
1.	AID	/eid/	Monosyllabic	VVC
2.	ASH	/æʃ/	=	VC
3.	BURP	/bɜ:p/	=	CVC
4.	Cramps	/kræmps/	=	CCVCCC
5.	ASP	/æsp /		VCC
6.	Ford	/fɔ:d/	=	CVVC
7.	FAQ	/fæk/	=	CVC
8.	Fist	/fɪst /	=	CVCC
9.	GATT	/gæt/	=	CVC
10.	LOL	/ləʊl/	=	CVVC
11.	NET	/net/	=	CVC
12	NEWS	/nju:z/	=	CCVVC
13	PIN	/pɪn/	=	CVC

“Applying Markedness Theory (MT) in the Syllable Structure of English Acronyms”

14	Grass	/græs/	=	CCVC
15	CAM	/kæm/	=	CVC
16	Ford	/fɔ:d/	=	CVVC
17	LAN	/læn/	=	CVC
18	PIL	/pɪl/	=	CVC
19	MIRV	/mɜ:v/	=	CVVC
20	NOARD	/nɔ:d/	=	CVVC
21	LEM	/lem/	=	CVC
22	IMP	/ɪmp/	=	CVC
23	JAB	/dʒæb/	=	CVC
24	Jag	/dʒæɡ/	=	CVC
25	Now	/naʊ/	=	CVV
26	AWACS	/'eɪwæks/	Disyllabic	VV.CVCC
27	ASAP	/'eɪsæp/	=	VV.CVC
28	AVIS	/'ævɪs/	=	VC.VC
29	Basic	/'beɪsɪk/	=	CVV.CVC
30	FIFA	/'fi:fə	=	CVV.CV
31	NASA	/'næsə/	=	CV.CV
32	GiGo	/'gaɪɡəʊ/	=	CV(V).CVV
33	Nascar	/næs'kɑ:/	=	CVC.CV(V)
34	ASCII	/æs.kɪ/	=	VC.CV(C)
35	AMEX	/'æmeks/	=	VC(C).VC(C)
36	Console	/kən'sɔ:l/	=	CVC.CV(V)C
37`	ISA	/'aɪsə/	=	VV.CV
38	SCUBA	'skju:bə/	=	CCCV.CV
39	SNAFU	/snæ'fu:/	=	CCV(V).CVV
40	TOEFL	/'təʊfl/	=	CV(V)C.C
41	TEFL	/'tefl/	=	CV(V)C.C

42	NEGRO	/'ni:grəʊ/	=	CV(V)C.CVV
43	PLATO	/'pleɪtəʊ/	=	CCV(V).CVV
44	COLA	/'kəʊlə/	=	CVV.CVC
45	Interpol	/'ɪntəpɒl/	Trisyllabic	VC.CV.CVC
46	UNESCO	/ju:'neskəʊ/	=	CVV.CVC.CV V
47	UNICEF	/'ju:nɪsef/	=	CVV.CV.CVC
48	ADIDAS	/'ædɪdæs/	=	V.CV.CVC
49	UNITAR	/'ju:nɪtə/	=	CVV.CV.CV
50	Intelsat	/'ɪntɪlsæt/	=	VC.CVC.CVC

7.1 Monosyllabic Acronyms

Monosyllabic acronyms in the data vary in their syllable structures. These acronyms are found to permit VVC structures with onsetless consonant syllables e.g. AID , VC onsetless monosyllabic acronyms with a single consonant in coda e.g. ASH, VCC onsetless syllables with a consonant cluster word finally, e.g. ASP, acronyms with word initial consonant clusters and single consonant in coda: CCVC, e.g. GRAS, acronyms with final consonant clusters: CVCC, e.g. FIST , acronyms with onset and coda without consonant clusters in coda or in onset: CVVC, e.g. LOL , acronyms with consonant cluster in coda and in onset: CCVCCC, e.g. CRAMPS, and finally acronyms that have the structure CCVVC with initial permissible consonant cluster ,diphthong or long vowel in the nucleus and with a coda, e.g. NEWS

In the syllable structure of these words, and in all words in the data, diphthongs and long vowels are represented as (VV). For more details about the structures of monosyllabic acronyms.

The syllable structure of monosyllabic words are various and the most widely used structure is CVC and CVVC, these two structures are regarded as unmarked structure because they are more frequent than the other structures, more used for their simplicity, less complex and more common, natural and regular.

To be closer, on monosyllabic acronyms in the data it is noticed that they generally have simple structures. Thus, the majority of these words have simple onsets and codas with no consonant clusters in either

position. From above explanation, it can be inferred that the majority of monosyllable acronyms have simple nonbranching onsets and/or codas than complex structures. So it is the unmarked type that is the more frequent than the other structures. In this case the majority group are CVC and CVVC structures and in this case the latter groups are more frequent, common and general among others.

Finally, it is important to mention briefly that there are acronyms in which some words (i.e. either lexical or grammatical words) are neglected and concerning additional words that are under consideration in forming new words (i.e. acronyms). This belongs to the reason that in forming new words (i.e. acronyms) is formed with consideration to the rules of pronunciation and restrictions on the syllable structure.

7.2 Disyllabic Acronyms

Acronyms in the data also reveal the occurrence of disyllabic structures and hence called disyllabic acronyms. These have more complex structures than that of monosyllable words since they are involving from two syllables. There are (19) acronyms in the data. The analysis of those acronyms is somehow more difficult than that made for monosyllabic ones. In this case one has to focus on the segmental and supra-segmental levels.

The frequent use of this structure is of higher rate among other structures (i.e. other syllable structures) in the data. From a general survey, it can be said that these structures are unmarked structures compared with other structures in these words because they are frequent, general and common. The second widespread syllable structure is that of the syllables which contain no consonant in the onset and/or in the coda being in the first or the second syllable.

However, there are many other structures that are found in the data of disyllabic acronyms. For instance VV.CVCC with final consonant clusters as in AWACS /eɪ.wæks/ also CVV.VC with no consonant cluster in both syllables as TOIEC /təʊɪk/. For other syllable structures.

Disyllabic acronyms in the data vary in their syllable structures. These acronyms are found to permit CV(V).CV(C) structures e.g. **BASIC, COLA**, CV(V).CVV structure disyllabic acronyms e.g. **GIGO, MACHO**, CVC.CV(V) structure disyllabic acronyms e.g. **BASMA, NASCAR AWACS**, VC.CV(C) structure disyllabic acronyms

e.g. ANZAC, ASCII and other disyllabic structures are VC(C).VC(C)
e.g. AMEX, VC.CV(V)(C) disyllabic structure, e.g. ASCAP ,
CVC.CV(V)C disyllabic structure acronyms e.g. CONSOLE, VV.CV
disyllabic structure acronym e.g. ISA, CV(V)C.CVV e.g.
NEGRO, NASCAR, CCV(V).CVV disyllabic structure acronyms e.g.
PLATO, SNAFU. CV(V)C.C disyllabic structure acronyms e.g. TEFL,
TOEFL.

7.3 Trisyllabic Acronyms

The third type of structure of acronyms in the data chosen through the study is trisyllabic . It is obvious that this kind of structure is not very common if it is compared with the previous two structures, viz. monosyllabic and disyllabic. From a general look at the analytical table, the number of trisyllabic acronyms is less frequent.

Trisyllabic acronyms consist of three syllables that are a group of letters (i.e. vowels and consonants). The most common structure in this type is that structure which involved CVC and CVV which are considered more general, common and frequent among other structures of trisyllabic acronyms .

From this table , one can conclude that CVV mostly comes at the first syllable , CV mostly comes at the middle syllable of acronyms and CVC mostly comes finally .Other structures are marked because of their lesser usage and frequency.

Examining the syllable structures in trisyllabic acronyms reveals that the vast majority of syllables are simple and they are more frequent among other syllable structures in these acronyms. The complex structures tend to be marked structures because of their lesser usage and occurrence.

Trisyllabic acronyms in the data vary in their syllable structures. These acronyms are found to permit different structures either first, second or third syllable, so it is conclude that the most common structures within the trisyllabic structure acronyms is :CVV, CVC, CV,V, VC, VV consequently. For example: trisyllabic structure acronyms VC.CV.CVC e.g. Interpol, CVV.CVC.CVV e.g. UNESCO, CVV.CV.CVC e.g. UNICEF, V.CV.CVC e.g Adidas, and CVV.CV.CV e.g Unitar.

8. Results and Discussion

The current study has tackled the syllable structure of acronyms through the principles of ‘MT. This study has explored the possibility of using certain criteria of MT, viz. complexity, frequency, generality, and regularity on a corpus of English acronyms. In this analytical part, the collected data were analyzed by tackling syllable structure on three recognized word structure: monosyllabic, disyllabic and trisyllabic ones.

The present study has proved the observation that acronyms display a regular trend toward English new formation words. Among the important findings arrived at within the study is that there is an agreement among linguists about determining the criteria that distinguish marked /unmarked items.

Actually the majority of our data (viz. 50 acronyms analyzed here) have unmarked syllable structures reflected in their simple structures and frequency of occurrence of these structures. It has also be concluded that most of the acronyms of three syllable structure are general and simple ones and that is so clear in the tables of analysis.

Finally, the syllable structures of acronyms that tend to be simple and more frequent and general which are CVC, CVV, CVVC and whenever the structure is complex, the numbers of using them tend to be low. Thus, these new forms tend to have simple structures.

9. Conclusions

This study has come up with the following conclusions: -

1. Acronyms display a regular trend towards English newly formed words from the perspective of (MT). Also the analysed acronyms tend to have unmarked syllable structures which reflected in their word structure.
2. Acronyms are structurally simple words composed of a restricted number of syllables, one or two maximally.
3. Data analysis has demonstrated that the vast majority of acronyms are monosyllabic and disyllabic ; only a few number of these are trisyllabic. Such structures are marked and are less frequent than the other structures.
4. Characteristics of the syllable in these new formed words are natural if compared with the properties of syllable of any English lexical word.

References

- Abercrombie, D.(1968).** Elements of General Phonetics. Edinburgh: Edinburgh University Press.
- Anastasiadis-Symeonidis, A. (1986).** I Neologia stin Kini Elliniki [Neology in Standard Greek]. Thessaloniki: Aristotle University of Thessaloniki.
- Battistella, E. (1990).** Markedness: The Evaluative Superstructure of Language, Albany, NY: SUNY Press
- Bybee, J. (2010). Markedness , Iconicity, Economy and Frequency.
- Bauer, L. (198 Beck , D. (2002).** The Typology of parts of speech systems : The markedness of adjectives. London: Routledge.
- Beck , D. (2002).** The Typology of parts of speech systems : The markedness of adjectives. London: Routledge.
- Blevins, J. (1995) .** “The Syllable in phonological theory”. In John A. Goldsmith (ed.) Handbook of Phonological Theory, (pp: 206-244). Oxford: Blackwell 3). English Word Formation. Cambridge: Cambridge University Press.
- Bussmann, H. (1996) .**Routledge Dictionary of Language and Linguistics. Translated and edited by Tauth, G. & Kazzazi , K. London and NY .Routledge.
- Collins, B., and Mees, I. M. (2003).** Practical Phonetics and Phonology: A Resource Book for Students. London: Routledge.
- Crystal , D. (2003) .**A Dictionary of Linguistics and phonology. 5th Ed & 6th Ed. Oxford: Blackwell Publishers.
- Cox, F. , Harrington, J. and Mannell, R. (2014) .** The –syllable : Introduction.
- Fabijanic, I. & Malenica,F. (2013).** “Abbreviations in English Military Terminology” . Brnostudies in English, Vol.39. No.1 . (pp:59-87).
- Fandrych, I. (2008).** “Sub morphemic Elements in the Formation of Acronyms Blends and Clippings”, in Lexis – E-Journal in English Lexicology 2: Submorphemics. (pp.105-123).
- Fijo, M. I. (2002).** “The Use of Acronyms in Nursing English: Implications for the Development of Communicative Competence of Communicative Competence”, in Elia: Estudios de Lingüística Inglesa Aplicada. Universidad Pablo de Olavide. (pp. 235-248).

Fischer, R. (1998). Lexical Change in Present Day English, A corpusbased Study of the Motivation Institutionalization, and Productivity of Creative Neologisms. Language in Performance. Gunter Narr Verlag Tübingen.

Forel, C. A. and Puskas, G. (2005). Phonetics and Phonology. University of Geneva (chapters 1 and 2 based on Vikner 1986). Updated by Cornelia Hamann and Carmen Schmitz .University of Oldenburg .

Fromkin, V., Rodman, R., and Hyams, N. (2003). An Introduction to Language. (7th ed.). Heinle : Thomson Corporation.

Fromkin, V., and Rodman, R. (1988). The Study of Language .2nd Ed. Cambridge: Cambridge University Press.

Givon, T. (1995). Functionalism and grammar. Amsterdam: Benjamins

Goldsmith, J. (2011). ‘The syllable’ . In the name of Goldsmith, Riggle and Yu of The Handbook of Phonological Theory, 2, (pp. 164-196). Wiley Blackwell.

Haspelmath (2006) . “Against Markedness (and what to replace it with)”. In Journal of Linguistics .Vol. 42, (pp.25–70).

Hume. E. (2010). "Markedness", in Oostendorp's The Blackwell Companion to Phonology. London: Blackwell Publishing Ltd. (Pp.79-106).

Hyman, L. (1975). Phonology :Theory and Analysis. Holt, Rinehart and Winston.

JC wells (1990) . Longman Pronunciation Dictionary . ISBN. University of London.

Ladefogged , P. (1975) .A Course in Phonetics. New York: Harcourt Brace Jovanovich.

Lipka, L.R. (2002) . English Lexicology: Lexical Structure, Word Semantics, & Word-Formation. Tübingen: Narr.

McMahon, A. (2002). An Introduction to English Phonology. Edinburgh: Edinburgh University Press Ltd.

Mirabella, P.A (2009). The Use of Acronyms and Initialisms in Business English. University of Oradea, (pp:557-562).

Oostendorp , M.V. et al. (2011). The Blackwell Companion to Phonology. ISBN.

Pyles , T. (1971) . The Origin and Development of the English Language. New York: Harcourt Brace Jovanovich, Inc.

- Plag, I. (2006).** Productivity, in Bas Aarts and April Mematon (eds.). The Handbook of English Linguistics. Oxford: Blackwell. (pp537- 556).
- Rice, K. (1999)** . ‘Featural Markedness in Phonology. In the name of Cheng & Sybesma in The Second Glot International State –of-the – article Book. The latest in Linguistics. Mouton de Gruyter. The Hague. (P:389).
- _____ (2007). ‘Markedness in phonology’, in De Lacy (ed.) The Cambridge Handbook of Phonology. Cambridge: Cambridge University Press. (pp. 79–97).
- Roach, P. (1988).** English Phonetics and Phonology. Cambridge: Cambridge University Press.
- _____ (2000) .English Phonetics and Phonology. 3 rded. Cambridge: Cambridge University Press.
- Stockwell, R., and Minkova, D. (2001)** .English Words :History and Structure . Cambridge: Cambridge University Press.
- Visan, N. (2013).** A Comprehensive View on English Acronyms and Alphabetisms. University of Bucharest.
- Wan-Lung, D. (2014).** Prosodic Structures of Different Japanese Dialects and the Universality of the Syllable. Unpublished MA thesis . University of Amsterdam. Available at : <http://www.fon.hum.uva.nl/theses/DavidLiMA2014.pdf>
- Zahariev, M. (2004).** ‘ ‘ A (Acronyms)’ ’ .Unpublished PhD Dissertation . Simon Fraser University.(Canada).

Websites

1. https://www.google.iq/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEWjd8eGbqrxJAhULtBoKHdokC6oQFggbMAA&url=http%3A%2F%2Ffirbisnbuv.gov.ua%2Fcgibin%2Ffirbis_nbuv%2Fcgiiirbis_64.exe%3FC21COM%3D2%26I21DBN%3DUJRN%26P21DBN%3DUJRN%26IMAGE_FILE_DOWNLOAD%3D1%26Image_file_name%3DPDF%2FNznuoaf_2009_11_36.pdf&usg=AFQjCNHViEFuSQktbBPKPhKa6oZA63JHbg
2. <http://www.allacronyms.com/aa-types-of-acronyms>
3. <http://www.anglistik.phil.unierlangen.de/dozenten/barnickel/Newwords.pdf>

“Applying Markedness Theory (MT) in the Syllable Structure of English Acronyms”

4. <http://www.w3.org/TR/UNDERSTANDINGWCAG20/meaning-located.html>
5. <http://www.pcmag.com/encyclopedia/term/50948/scsi>
6. http://www.revolvy.com/main/index.php?s=Syllables&item_type=topic&sr=50