

CHAPTER II

LITERATURE REVIEW

2.1. Stress in General

2.1.1. The Nature of Stress

In identifying the characteristics of stressed syllable, Roach (2000:94) believes that there are two different ways to distinguish them, and it relates with the point of view of production and of perception. In the point of view of production, stress is believed to depend on the speaker using more muscular energy than is used for unstressed syllable. In this case, we know that it is impossible to measure the muscular effort because it is difficult to be identified. But, according to experimental studies, it is written that when we produce stressed syllables, the muscles that we use to expel from the lungs are often more active and producing higher sub-glottal pressure. From the perceptual point of view, it is stated that many different sound characteristics are important in making a syllable recognizably stressed, and all stressed syllables have one characteristic, that is prominence. The stressed syllables can be recognized by identifying the prominence; the stressed syllables are more prominent than unstressed syllables.

Therefore, further explanation about what makes a syllable prominent is: The common assumption is that a stressed syllable is simply said more loudly than the other syllable in word. It also suggests that the

stressed syllables seem to be louder than the rest. Supported by Roach (2000), most people seem to feel that stressed syllables are louder than unstressed; thus, loudness is a component of prominence. But, the reality is the speaker would be difficult to make a syllable louder without changing other characteristics of the syllable. Thus, loudness is not the only one device producing the prominence of the stressed syllable. Loudness works together with other factors, such as length, pitch and quality.

The length of syllable has a pivotal part to deal with prominence. Roach (2000:95) takes an example of one syllable in ‘nonsense word’ such as **ba:ba:ba:ba:** is made longer than the others, there is a quite strong tendency for that syllable to be heard as stressed. The next factor is pitch. Every voiced syllable is pronounced on some pitch; pitch in term of speech is closely defined as the frequency of vibration of the vocal folds and the musical notion of low-pitched and high-pitched notes. It is essentially a perceptual characteristic of speech. If one syllable of particular words is pronounced with a pitch that is obviously different from that of the others, this will have a strong tendency to produce the effect of prominence. Roach (2000:95) gives example, if all the syllables are pronounced with low pitch for one pronounced with high pitch, then the high-pitched syllable will be heard as stressed and the others as unstressed.

The last factor is quality. A syllable contained with a vowel that is different in quality from neighboring vowels will tend to be more prominent. Roach adds that if the vowels in the “nonsense word” (e.g.

ba:bi:ba:ba:) the “odd” syllable **bi:** will tend to be heard as stressed. The prominence is increased by contrast with of the “background” qualities of strong and weak syllables. Kostakova (2005:15) stated, strong syllables have either a long vowel or diphtong, or a vowel followed by a coda (that is one or more consonants after syllable peak). Weak syllables compared with strong ones tend to have a shorter vowel of lower intensity, are different in quality, have a short vowel without coda unless the syllable peak is the schwa vowel [ə] or less often [ɪ]. Only strong syllables can be stressed, weak syllables are always unstressed.

To conclude, the prominence is produced by main four factors such as: loudness, length, pitch and quality. In general, these factors will work together in combination, although sometimes syllable may be made prominent by means of only one or two of them. However, experimental work has shown that these factors are not equality important; the strongest effect is produced by pitch, and length is also powerful factor, while the loudness and quality have much less effect.

2.1.2. Levels of Stress

When a word has two syllables, the prominence results a higher level on the first syllable but on the second syllable, the pitch does not remain level; it is called **primary stress**. Take a look at the word ‘alone’ /ə'ləʊn/, where the stress always falls obviously on the last syllable and the first syllable is weak. The primary stress is resulted by giving the prominence produced from the pitch

movement, or tone to the certain strong syllable. Nevertheless, in some words, there is a type of stress that is weaker than primary stress but stronger than the first syllable on the word of ‘alone’. Examples are given, the first syllable of the words ‘archeology’ /**ɑkiɒlədʒi**/ and ‘photographic’ /**fəʊtəgræfɪk**/. The stress in these words is called **secondary stress**. This stress is represented in transcription with a low mark (,) so that the examples given could be transcribed as *ˌfəʊ.tə'græf.ɪk* , *ˌɑː.ki'ɒl.ə.dʒi*.

Further explanation stated by Fudge that he claims that in longer words syllables before the one with main stress may be made more prominent than their neighbors. The principle underlying this appears to be a rhythmic one; some alteration of relatively stressed and relatively unstressed syllables is the most natural situation for English” (Fudge 1984:31).

The rules for secondary stress can be summed up as follows (Fudge 1984:29):

- If there is only one syllable before the primary stress, no secondary stress is assigned and the syllable is unaccented, e.g. *ə'mer.i.kə*; *ə'kaʊnt*; *ri'plai*.
- If there are two syllables before the primary stress, the secondary stress falls on the first one, e.g. *ˌpæn. ə r'a:mə*; *ˌrep.ri'zent*; *ˌmæɡ.ə'zi:n*.
- Where there are more than two syllables before the primary stress, the secondary stress falls two syllables back, when there is a strong syllable and three syllables back, when there is a weak syllable, e.g. *inˌfið.ri'vɜː.ə.ti*; *ˌkær.ɪk.tə'ris.ti.kli*.

Interestingly enough, secondary stress sometimes falls on the syllable which has the primary stress in the corresponding word form, e.g. 'million - ,millio'naire. Fudge (1984) claims, however, that this is rather coincidental and the stress pattern may be completely changed, especially if main stress falls on the final syllable, e.g. Ja'pan - ,Japa'nese, or ci'gar - ,ciga'rette. (41) "English shows a definite tendency not to have strong stresses on adjacent syllables within a word".

However, the levels of stress are not only relying to both primary and secondary stress. In other words, English word stress is rather complicated and it is not easy to know which syllable or syllables in a word is/are stressed. Moreover, it is usually not enough to identify the stressed syllable. One should be borne in mind that unstressed syllables are also important in the sense that they should be equally reduced. This tendency to reduce the vowels of unstressed syllables is obvious in many languages, but English exploits it a great deal by reducing both vowel duration and quality. (Dalton; Seidlhofer 1994:42) Unstressed syllables often contain the vowel [ə] instead of a full vowel, which has the effect of making schwa the most frequent English sound. It is important to note that the schwa sound only occurs in unstressed syllables, never in stressed ones (e.g. 'vicar, 'husband, 'measure, 'colour). On the other hand, it is not true that [ə] is the only vowel which occurs in unstressed syllables. (O'Connor 1980:92) The sound [ɪ] is frequently found there, as in 'forest, 'target, 'village, 'donkey; and other vowels less frequently, e.g. 'hiccup, u'tility.

Therefore, these are the three levels that will be used in describing English stress, but it is worth noting that beside two vowels (ə and ɪ), the unstressed syllable containing i, u or a syllabic consonant will sound less prominent than an unstressed syllable containing some other vowel.

2.2. Stress in English

2.2.1. Word stress patterns

In some languages the incidence of stress within the word is fixed, e.g in French all words are usually stressed on their final syllable, in Polish on the penultimate syllable, while in Czech or Finnish they are stressed on their initial syllable. In some other languages, such as Spanish, Portuguese and Italian, rules can be given which cover the stressing of the majority of words. In Spanish, moreover, all irregular stresses are marked with an accent, which facilitates enormously the task of the foreign students who have to study the language mainly from books. (Kingdon 1958:12).

The stress pattern of English words is free in this case, that means that the main stress is not tied to any particular situation in the chain of syllables constituting a word, as it is in the above mentioned languages. However, English word stress is fixed in the sense that the main stress regularly falls on a particular syllable of any given word. (Cruttenden 1997:201)

Thus, words such as *husband*, *finish*, *answer* are regularly stressed on the first syllable; *alone*, *behind*, *together* on the second syllable, and *possibility*, *circulation*, *unimportant* on the third syllable.

In other words, English word stress is variable – any syllable of a polysyllabic word can carry the main stress. As well as being variable, English word stress is also mobile. In the word ‘photograph’, the stress falls on the first syllable (‘photograph’), but in ‘photographer’, it falls on the second syllable (pho’tographer). “Having become familiar with the pronunciation of one form of the word, learners will usually assume that the stress stays on the same syllable in the other forms of the word. In other words, they will assume that the prefixes and suffixes make no difference to the placement of the stress. But in English they do” (Kelly 2002:59). The placement of word stress in English can hardly be reduced to a set of strict rules.

Although some rules do exist, they tell us what is true most of the time, not always. There is a large number of exceptions to almost any rule, so the following sections should be regarded as descriptions of tendencies rather than absolute rules. One may wonder how it is possible that some languages use a regular and easy word stress while a language like English has such an irregular and complicated system. The answer lies in the etymological standpoint. The irregularity of English stress arose from the fact that the vocabulary has been drawn from two principal sources. English is a blend of Germanic elements (with the tendency towards early word stress) and Romanic elements (where late stress prevails). (Fudge 1984:4) The interaction of these two opposing tendencies has

led to a somewhat confusing combination which now causes troubles to thousands of English learners all over the world.

For an analysis of stress it is needful to categorize the word morphologically (to say whether it is a simple or complex word containing one or more prefixes and suffixes, or a compound word consisting of two independent English words), according to the grammatical category (noun, adjective, verb, adverb, etc.), number of syllables and phonological structure. The last aspect implies the division of syllables between strong and weak ones. Strong syllables have either a long vowel or diphthong, or a vowel followed by a coda (that is one or more consonants after syllable peak). Weak syllables compared with strong ones tend to have a shorter vowel of lower intensity, are different in quality, have a short vowel without coda unless the syllable peak is the schwa vowel [ə] or less often [ɪ]. (Košťáková 2005:15) Only strong syllables can be stressed, weak syllables are always unstressed.

2.2.2. Stress in Simple words

If the word is monosyllabic, there is no choice of place for stress. In disyllabic words it is obvious that either the first or the second syllable will be stressed. Somewhat different tendencies apply to nominal roots on one hand and verbal and adjectival roots on the other. Adverbs are generally derived from adjectival stems with no alteration to stress pattern. (Cruttenden 1997:204)

As for nouns, if the second syllable contains a short vowel, the stress will fall on the first syllable ('money, 'product), otherwise it will fall on the second syllable (ma'chine, ba'lloon, i'dea). As for verbs, if the second syllable is a strong syllable, the stress falls on that syllable, as in re'peat, a'rrive. If the final syllable is weak, the first syllable will be stressed as in 'open. Two-syllable adjectives are stressed following the same rules as verbs, e.g. a'live, a'long, 'lovely. (Košťáková 2005:16)

Certain words show different stress patterns depending on whether they are nouns or verbs. Such word oppositions are mostly disyllabic, of French origin, and they may or may not involve phonemic changes of quality. (Cruttenden 1997:211)

A relatively small number of noun-verb pairs may differ only in the location of the primary stress, this falling on the first syllable in the nouns and on the second in the verbs.

Words	Noun	Verb
Torment	/'tɔ:.ment/	/tɔ: 'ment/
Import	/'ɪm.pɔ:t/	/ɪm 'pɔ:t/
Transport	/'træn.spɔ:t/	/træn 'spɔ:t/

The change of stress is more frequently accompanied by a sound change as well. The vowel in the first syllable of the verb is often reduced to a schwa sound or [ɪ].

Words	Noun	Verb
Conduct	/ˈkɒn.dʌkt/	/kənˈdʌkt/
Contract	/ˈkɒn.trækt/	/kənˈtrækt/
Convict	/ˈkɒn.vɪkt/	/kənˈvɪkt/
Export	/ˈɛk.spɔ:t/	/ɪkˈspɔ:t/
Permit	/ˈpɜ:.mɪt/	/pəˈmɪt/
Produce	/ˈprɒd.ju:s/	/prəˈdju:s/

In few cases, there may be a reduction in the vowel in the second element of the noun:

Segment	/ˈseg.mənt/	/segˈment/
Subject	/ˈsʌb.dʒekt/	/səbˈdʒekt/
Present	/ˈprez. ənt/	/prɪˈzent/
Object	/ˈɒb.dʒɪkt/	/əbˈdʒekt/

Again, this rule cannot be accounted absolute without exceptions. Because there is some exception that certain disyllables do not conform to this noun/verb distinction or exhibit instability, e.g. comment /ˈkɒm.ənt/ or report /rɪˈpɔ:t/ retain the same stress-pattern for both the noun and the verb; contact [ˈkɒntækt] for a noun and for a verb; detail [ˈdiəteɪl] for a noun and for a verb, etc. In most cases, the noun form tends to supersede the verbal pattern. (Cruttenden 1997:212)

Rules for the placement of stress in polysyllabic words are otherwise quite complicated. A.C.Gimson states following tendency for all grammatical classes: “Words of three syllables or more with a long final vowel or short vowel plus two or more consonants may have the primary accent on the antepenultimate rather than the final syllable, e.g. 'anecdote, 'pedigree, a'cetylene” (Cruttenden 1997:204).

As stated at the beginning, the statement above indicates the tendencies rather than absolute rules. Because, the English stress pattern is not fixed and there are truly many exceptions, some of which could be explained by giving more detailed descriptions. As cruttenden (1997:204) gives an example of why do we pronounce to'bacco rather than toba'cco? The answer is because there is an additional rule that final [əu] is frequently unaccented. Of course, many additional rules can be found but at this occasion, the writer will not go into them because of the writer's restriction.

2.2.3. Stress in Complex word

Complex words are made from a basic word form called root and an affix (prefix preceding the root or suffix coming after the stem). When certain suffixes are attached to the root, they leave the stress-pattern unchanged. Such suffixes are called *stress-neutral*. The primary stress in the complex word falls on the same syllable as in the root, e.g. 'shy, 'shyness. Other suffixes regularly attract the stress onto themselves and are therefore called *stress-attracting* or *autostressed*, e.g. 'million, millio'naire. But others have the effect of fixing the stress on a

particular syllable of the root. These suffixes are known as *stress-fixing* or *pre-stressed*. (Fudge 1984:40-41)

“Unfortunately, many suffixes are not entirely regular in the accentual pattern they induce, belonging in one group of words to one category and in another group of words to another category”.(Cruttenden 1997:205)

Prefixes are generally regarded as stress-neutral, e.g. il- (il'logical), im- (im'possible), in- (incor'rect), ir- (irres'possible), un- (un'certain), mal- (mal'function), re- (re'decorate) and many others.