

Stress Alternation in English Morphological Derivation Words Produced by Native Speakers of Indonesia

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Abstract

Although English students (English-L2) are allowed to retain their local accent when speaking English, they may not be intelligible if they use inappropriate stress in communication. This research is intended to find out how English-L2 produce stress in English morphological derivation words. The respondents of this study are 10 students of English Department (PBI-UPY) Who are native speakers of Indonesian. PRAAT software is applied to analyse the recordings, including measuring the pitch of each word, the highest pitch indicates the primary or strongest stress in each word. The instruments of this study are 5 morphological derivation words which have different level and variation of stress. The result illustrates that English-L2 produce inappropriate stress alternation in English morphological derivation words. Most English-L2 are not able to distinguish between strong and weak stressed syllables. It is proved by the pitch which they produce have a broadly similar pattern.

Keywords: *stress, alternation, English-L2*

Background of the Problem

Pronunciation has not been a major concern in English language teaching (ELT). Almost all English language teachers get students to study grammar and vocabulary, practise functional dialogue, take part in productive skill activities, and become competent in listening and reading. Yet some of these teachers make little attempt to teach pronunciation in any overt way and only give attention to it in passing (Harmer 2003). However, pronunciation is crucial in communication. It helps students to solve the serious intelligibility problems. Pronunciation not only makes students aware of different sounds and sound features, but can also improve their ability in using spoken English properly. Understanding spoken English involves more than the ability to pronouncing individual words correctly. It also involves an ability to hear and produce stress of English words. On the other hand, students of English tend to ignore stress patterns when they learn pronunciation or vocabulary which consequently lead them to serious pronunciation problems, problem with comprehension and intelligibility

Communication in spoken English is organized by suprasegmental features. These suprasegmental features are similar to musical signals. The reason is that for the purposes of teaching pronunciation, the teacher needs to understand these musical signals work. Kelly (2001:3) states that suprasegmental features, as the name implies, are features of speech which generally apply to groups of segments, or phonemes. The features which are important in spoken English are stress, intonation, and how sounds change in connected speech which is called the rhythm. The features of these musical signals are usually bound up in first language. It means that the features are deeply rooted in the minds of students. Thus, it is common for Indonesian students of English to find it difficult when they hear themselves speak with this suprasegmental features of English.

Looking more closely at that problem, a teacher can help overcome this barrier and other challenges by thinking of the goal of pronunciation instruction not as helping students to sound like native speakers but as helping them to learn the core elements of spoken English so that

they can be easily understood by others. It can be said that the main concern in teaching pronunciation is intelligibility. Clearly, some pronunciation features are more important than others. Pronouncing the word 'water' with /wɔ:tə/ or /wədər/ may not cause a lack of intelligibility and it is less significant rather than stressing words and phrases inappropriately. In the case of intelligibility, students may have their own accent or retain their first language accent. They do not have to sound exactly like an American or a British. Therefore, speaking English with native accent such as Indonesian accent is acceptable.

Although students are allowed to retain their accent when speaking English, they may not be intelligible if they use inappropriate stress in communication. Hence, stress is admittedly crucial in spoken English. Students have to be able to put the proper stress in English words. Stress is applied in individual words in phrases, and in sentences. Shifting it around in a phrase or a sentence causes change emphasis or meaning. All English words will contain one syllable that has primary stress: a syllable that is more prominent than the other syllables in the word (Meyer,2002:210). In the word *tiger*, for instance, the primary stress falls on the first syllable because of the two syllables in this word, the first syllable is more prominent than the second one.

Many other variations in stress can be associated with grammatical structure of the words. There are numbers of morphological alternations that affect stress and, consequently, the pronunciation of the whole word. Morphological derivation might involve a change in stress since many of the suffixes which are added to derive words have an effect on stress. To illustrate this, the word '*diplomat* has main stress on the first syllable but when a noun-forming suffix "-y" occurs as in *diplomacy*, the stress in this word shifts to the second syllable.

English words with more than one syllable mostly have a fixed stress alternation pattern. There are not many rules to show which syllable of a word will

be stressed, learner of English usually has to learn the stress alternations of a word along with its meaning, spelling and pronunciation. Meanwhile, in Indonesia, stress is considered as unimportant subject to be taught. Correspondingly, students of English in Indonesia barely perceive English word stress alternation. This wrong perspective of stress can cause vital intelligibility problem. In this study, the researcher intends to figure out the variation of stress alternation in English morphological derivation words produced by English Department students of PGRI University of Yogyakarta.

Previous Study

There are some previous research related to second language production in accordance with suprasegmental features, one of them is Pinem (2013) who writes about how native speakers of Indonesian from Eastern part produce English long and short vowels. She finds that Indonesian speakers tend to lengthen the sounds, yet are able to shorten them in phrase as a result of morphophonemic's process.

The other one is Rachel Adam (2013). He writes about how prosodic elements have abilities to improve pronunciation in English language learners. He states that second language pronunciation can improve to be near native-like with the implementation of certain criteria such as the utilization of prosodic elements. With the emphasis on meaningful communication and the understanding that speech production is affected by speech perception, there is a need to integrate prosodics with communicative activities providing situations to develop student pronunciation through listening and speaking. This short overview examines such elements.

However, research on word stress alternation, more specifically in morphological derivation words produced by English L2 speakers especially Indonesian students has not been done. It can be concluded that this research needs to be conducted.

Methodology

To analyse the stress alternation patterns in English-L2, the writer randomly chooses 10 students from Pronunciation Class in English Department of PGRI University of Yogyakarta. The ten students come from different background. Since they are teachers to be, they should be able to pronounce every single English word correctly and manage to convey the actual meaning in conversation.

The object of this research is the highest pitch in each instrumental words in order to draw the stress patterns produced by the participants. The data of this research is the recording of participants. The research applies sound wave and pitch diagram. The writer uses PRAAT software. It is a software which functions to describe sound of language then converted to sound wave or pitch.

There are two steps in collecting the data, firstly, the students are asked to listen to the instruments (5 morphological derivation words). secondly, the students are asked to produce what they exactly heard while the researcher records them one by one. After the listening and recording process are done, the sounds are converted to soundwaves and pitch graphs using Praat free software. The soundwaves and pitch graphs are segmented syllable by syllable to analyze the movement of pitch then the stress pattern can be drawn and seen.

Discussion

The Nature of Stress

Some languages are said to have fixed stress, or to be fixed-stress languages. For example, in Indonesian and Javanese, stress normally found at the last syllable (*si'ji, lo'ro, te'lu* or *sa'tu, du'a, ti'ga*). In a general sense stress is variable in English. If a person still learning English as a new language says *'beginner* instead of *be'ginner*, those who already know the language consider it a mispronunciation, even though the meaning is probably clear enough. In English words stress is not fixed – but does that mean that it is not predictable?

Stress in English is produced by (1) increased activity of the respiratory muscles, producing loudness, as well as by (2) exaggeration of consonant and vowel properties, such as vowel height and stop aspiration, and (3) exaggeration of pitch so that low pitches are lower and high pitches are higher (Ladefoged, 2001:23). The pitch of a sound itself is an auditory property that enables a listener to place it on a scale going from low to high, without considering its acoustic properties.

English is a language with variable stress rather than fixed stress. Determining syllable can be difficult. English words with more than one syllable mostly have a fixed stress pattern. There are not many rules to show which syllable of a word will be stressed, learner of English usually has to learn the stress pattern of a word along with its meaning, spelling and pronunciation. Stress also has function in distinguishing between a noun and a verb or an adjective and an adverb. Many other variations in stress can be associated with the grammatical structure of the words. In English morphological derivation word, there are kinds of alternation in stress that can occur.

It is not easy to define stress from a listener's point of view. A stressed syllable is often but not always, louder than an unstressed syllable. Roach (1991) added that every syllable is said on some pitch; pitch in speech is closely related to the frequency of vibration of the vocal folds and to the musical notion of low and high-pitched notes. It is essentially a perceptual characteristic of speech. It means that if one syllable of our "nonsense word" is said with a pitch that is noticeably different from that of the others, this will have a strong tendency to produce the effect of prominence. For example, if all syllables are said with low pitch except for one said with high pitch, the high-pitched syllable will be heard as stressed and the others as unstressed. Here is an example of stress in the word 'analytical' produced by a native speaker:

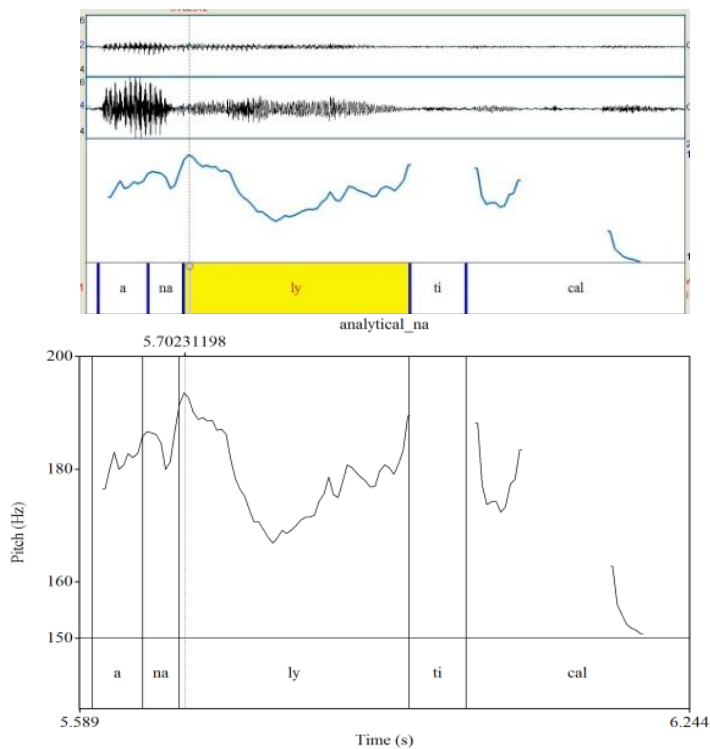


Figure 1

The picture shows that English native speaker produces appropriate stress. It is indicated by the dotted vertical line which lays in the proper syllable of the word. The line represents the highest pitch

in that word. It can be said that the syllable in the line has prominent stress.

In English, morphological derivation words have an effect on stress. The table bellow shows the stress alternation in the words.

Table 1

Analyse	Analysis	Analytical
/ˈænəlɪz /	/əˈnæləsɪs/	/,ænəˈlɪtɪkəl /
Diplomat	Diplomacy	Diplomatic
/ˈdɪpləmæt /	/dɪˈpləʊməsi /	/,dɪpləˈmætɪk /
Photograph	Photography	Photographic
/ˈfəʊtəgræf /	/ˈfəʊtəgræf /	/,fəʊtəˈgræfɪk/
Politic	Politician	Political
/ˈpɑ:lətɪk /	/,pɑ:ləˈtɪʃn /	/pəˈlɪtɪkəl /
Monotone	Monotony	Monotonic
/ˈmɑ:nəʊtən /	/məˈnɑ:təni /	/mə:nəˈtəʊnɪk/

For native speakers of English, stress is not a problem, they automatically notice the different of stress in each word and know how to use it, whereas learners of English (English-L2) will probably have to

struggle for it. Here is an example of incorrect stress in morphological derivation produced by a student of English in English Department.

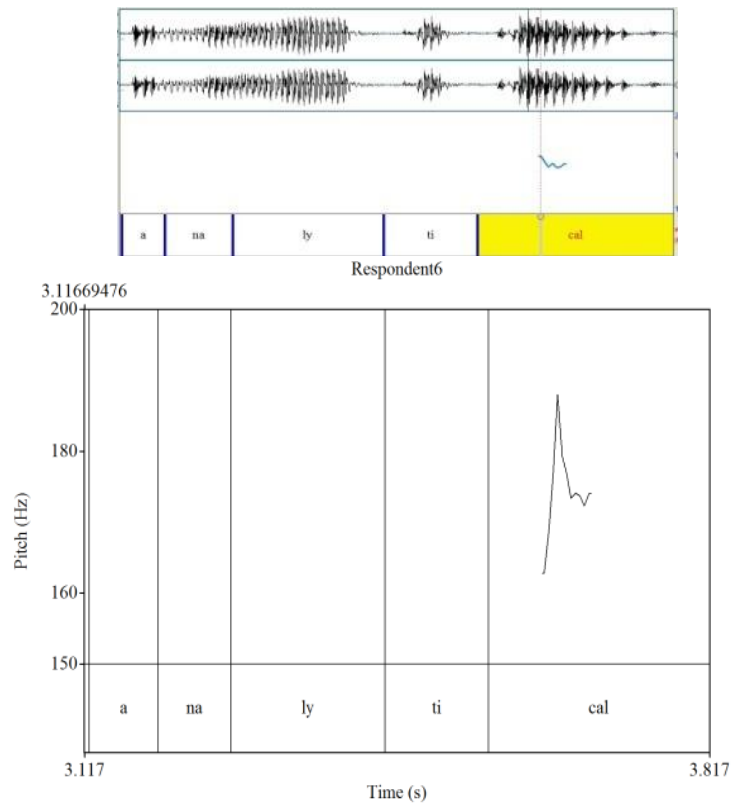


Figure 2

It can clearly be seen that the student produces inappropriate stress in the final syllable /ænəlɪtɪ'kəl / instead of the third /,æ'nəlɪtɪkəl /.

In this research, the writer tries to find out the stress alternation in English morphological derivation words. Many students find difficulties in deciding which is strong stressed syllable and which one is not. The incorrect stress produced by

English-L2 is presented in table with the first column shows the given words, the second column shows the correct pronunciation, the third column shows how many students produce correct stress, the fourth column shows the alternation of stress made by English-L2 and the last column shows the number of students made each variety of stress.

Table 2

Word	Correct Stress	Number of Respondent	Variation of Stress	Number of Respondent
Analyse	/'æ'nəlaɪz /	7	/æ'nəla'ɪz /	1
			/æ'nə'laɪz /	1
			/æ'nəlaɪz /	1
Diplomat	/'dɪpləmæt /	8	/dɪ'pləmæt /	5
			/dɪplə'mæt /	2
Photograph	/'fəʊtəgræf /	7	/fəʊtə'græf /	3
politic	/'pɑ:lətɪk /	4	/pɑ:'lətɪk /	3
			/pɑ:lə'tɪk /	3
Monotone	/'mɑ:nətu:n /	3	/mɑ:'nətu:n /	2
			/mɑ:nə'tu:n /	4

When the words are added by derivational suffixes, most English-L2 find it difficult to pronounce the words

correctly. The wrong stress produced by English-L2 is shown in the table below

Table 2

Word	Correct Stress	Number of Respondent	Variation of Stress	Number of Respondent
Analytical	/ ,æ n ə ' l ɪ t ɪ k ə l /	2	/ æ n ə l ɪ t ɪ ' k ə l /	5
			/ , æ n ə l ɪ ' t ɪ k ə l /	3
Diplomatic	/ , d ɪ p l ə ' m æ t ɪ k /	4	/' d ɪ p l ə m æ t ɪ k /	2
			/ d ɪ , p l ə m æ ' t ɪ k /	4
Photographic	/ , f o u t ə ' g r æ f ɪ k /	3	/ f o u ' t ə g r æ f ɪ k /	3
			/' f o u t ə g r æ ' f ɪ k /	4
Political	/ p ə ' l ɪ t ɪ k ə l /	3	/' p ə l ɪ t ɪ k ə l /	4
			/ p ə l ɪ ' t ɪ k ə l /	3
Monotonic	/ m ə : n ə ' t oʊ n ɪ k /	2	/ m ə : n ə t oʊ ' n ɪ k /	5
			/ m ə : ' n ə t oʊ n ɪ k /	3

The table shows the variation of inappropriate stress, mostly English-L2 produce stress in final syllable of each word.

Conclusion

It can be concluded that English-L2 do not really notice the stress alternation in English morphological derivation words.

The result illustrates that English-L2 produce inappropriate stress alternation in English morphological derivation words. Most English-L2 are not able to distinguish between strong and weak stressed syllables. It is proved by the pitch which they produce have a broadly similar pattern.

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