SUPRASEGMENTAL FEATURES
OF INDONESIAN STUDENTS’ ENGLISH PRONUNCIATION
AND THE PEDAGOGICAL IMPLICATION

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Received: 13 August 2020 Received: 13 August 2020 Accepted: 20 November 2020

Abstract
This study aims at describing learners’ features of pronunciation in terms of the suprasegmental aspects found in their speech. Students were asked to read aloud a text entitled The Gorilla Joke (British Council, 2006). Students’ oral narrations were then analysed in terms of their intonation pattern and stress assignment at the sentence level. A metrical analysis was also used to show how students produced their speech rhythm. The result of the analysis shows that given the same text to read, students may produce various combinations of intonation patterns. Students also misplaced stress within the syllables or assigned no stress at all. Based on the metrical phonology analysis, learners did not assign foot timely based on the timing units in connected speeches. The speech production was more like a broken speech. Students also neglected the morphophonemics rules in which they did not produce the appropriate allomorphs [t], [d], and [id] in the past participle words. These features bring about some pedagogical implication.

Keywords: students’ pronunciation features, suprasegmental aspects

INTRODUCTION
An effective spoken discourse, in a sense that the speaker is understood by the listener, is characterized by at least two aspects; fluency (naturally flowing language) and accuracy (clear grammar and intelligible pronunciation including appropriate stress placement, rhythm, and intonation employment) (Brown, 2001; Luoma, 2004; Nunan, 2015). Further, Nunan (2015) points out that it’s insufficient for a learner to be able to articulate sounds, to have ample vocabularies, and to master grammar to communicate well in a language. Learners need the so-called communicative competence to communicate effectively in the target language. Bohlke in Nunan (2019) includes phonological skills as one of the categories of communicative competence besides the speech function, interactional skills, and extended discourse skills. As the focus of this article is to discuss students’ pronunciation features, only phonological skills are being discussed further. Having phonological skills means that learners are able to employ the phonemes of the language they learn in a spoken utterance with appropriate stress and intonation (Goh in Nunan, 2015).
Like grammar and vocabulary, pronunciation in the context of teaching English as a foreign language (EFL) is taught explicitly. In the context of Indonesian English language teaching (ELT) pronunciation is taught explicitly to students, particularly in the tertiary level in which learners learn English as their major. Bahasa Indonesia, being a phonetic language, may have a simpler pronunciation as what is spelled exactly corresponds to how it is pronounced. In English however, the 26 alphabets are represented in 44 sounds (Kelly, 2000). There is no one-to-one relationship between spelling and pronunciation. An Indonesian learner may make several pronunciation mistakes at the segmental level for pronouncing /u/ as it will remain [u] in initial, middle, or final position in Bahasa Indonesia. In English the alphabet u is an [u] in put [put], an [a] in cut [kat] or a [ju] in cute [kjut]. Some phonemes are also absent in Bahasa Indonesia which may make further confusion among students. The phonemes /ð/, / θ/, and /ʒ/ are naturally non-existent in Bahasa Indonesia, thus pronouncing words such as them /ðem/, think /θiŋk/, and vision /vɪʒn/ may be challenging to Indonesian learners.

In the suprasegmental aspects of English pronunciation, such as stress, rhythm, intonation, and linking, Indonesians may have difficulties applying stress in pronouncing the words. All words are given equal emphasis; no syllable is more prominent than other syllables in Indonesian words. Students tend to ‘ignore’ the stress or misplace it (Abdullah & Lulita, 2016). Some studies have suggested that suprasegmental features are given more prominent position in teaching, discussing, and researching pronunciation. Studies found that suprasegmental features, not individual phonemes, carry the whole information in the utterance (Hussain & Sajid, 2015). Thus, stress and stress-timed quality of English are two of the suprasegmental features that need consideration. This article focuses on discussing the suprasegmental features of English learners’ pronunciation and what implication these descriptions may bring to ELT.

**Stress, Connected Speech, and Rhythm**

Stress applies to both word and sentence levels. As stated by Collins and Mees (2003), a stressed syllable has four indicators: intensity (breath effort and muscular energy used when producing stressed syllables compared to unstressed ones), pitch variation (in which higher pitch is usually associated to stronger stress), vowel quality (syllables containing peripheral vowels e.g. / I / and / ʊ / are generally stressed, as well as the syllables with central vowels especially the schwa / ə /), and vowel duration (vowels are pronounced longer in stressed than in unstressed syllables). When pronounced in isolation, all English words, to some extent, carry potential stress assignment, monosyllabic or polysyllabic. Monosyllabic words carry one stress assignment while the polysyllabic words may carry primary stress (the most prominent stressed syllable) and the other one is the secondary stress.

At the sentence level, some potential stresses are lost in connected speech, more emphasis is given to content words (nouns, verbs, adjectives, adverbs) than to function words (articles, auxiliary verbs, linking verbs, preposition, pronouns, conjunctions) (Collins & Mees, 2003). The function words are not normally assigned any stresses in connected speech, while the content words are. The function words are present in their weak forms in a connected speech. Consider the following examples:

(1) [ai bo:t ə buk]
(2) [ai wont tə gəu]

The articles a and the preposition to are not given stress that they take the form of their weak forms; [ə] for a and [tə / tu] for to.

Connected speech is characterized by the existing of strong and weak forms of words. The content words usually come in the strong forms while the function words are usually given their weak forms in utterances. Function words like pronouns his /hɪz/ and her /hə(r)/ may become /ɪz/ in utterance it’s his book [ɪtsɪz bʊk] and /ə(r)/ in utterance give her time [gɪvə(r) taim]. An-
other example is the linking verb *can* /kæn/ that becomes [kən] in the utterance *George can dance well* [dʒɔdʒ kən ˈdɑns wel] (Indriani, 2005). The function words may be given their strong forms when the information in the utterance requires it. Consider the excerpt from the famous animation movie by DreamWorks, *Kungfu Panda* (2008) below. This excerpt is taken from the scene of the appointment of the Dragon master in Jade Palace. Shifu is announcing each warrior ability.

(3) Shifu: And finally…. Master Tigress! And believe me citizens, you **have** [hæv] not seen anything!  
Po: I know!  
(Kungfu Panda, 2008)

Normally have, as an auxiliary verb and not as a full verb, is given one of its weak forms, either [əv] like in *the boys have gone home* [ðə boiz əv gɒn həʊm] or [v] as in *I’ve read it* [aɪ v red ɪt]. In sample (3) above, however, instead of merely saying **haven’t** which would be too flat for an announcement, Shifu is trying to attract audience’s attention on Master Tigress’ Kungfu skills by putting emphasis on the word have. The main message is that this ability is unlike anything the audience have ever seen before.

It is currently a debatable subject in the trend of English as Lingua Franca when discussing whether or not students need to be taught connected speech as connected speech is found in native speakers’ talk and it marks fluency in English. The pros suggest that students are given the experience to practice the strong and weak forms in pronunciation practices, not only to become natural speakers but also to be able to distinguish the phonemes in speeches they listen to (Kelly, 2000; Steele, nd).

Sentence stress forms the rhythm in English therefore English is sometimes referred to as a stress-timed language (Kelly, 2000; Ladefoged & Johnson, 2011). Being a stress-timed language, English stresses occur at regular intervals in connected speech and the duration of utterances is dependent more on the number of stresses than the number of syllables, (Kelly, 2000: 70). This stress-timing is the dominant factor for the creation of rhythm in English, due to the combination of stressed and unstressed syllables and is a key factor in fluency. When all words in the utterance are given equal stress, the talk will sound unnatural and listeners will have difficulty in discriminating the focus of the message and meaning conveyed in the talk (Darn, nd).

**Intonation**

Ching (2006) defines intonation as the variation in volume and pitch in a whole sentence. She also adds that intonation is important for questioning, agreeing, disagreeing, confirming sentences as well as expressing emotions and feelings. The normal pattern of intonation is the rise/fall intonation. This is when the pitch would slowly go up and then go right down, indicating the speaker has finished his/her statement. The second intonation is the fall/rise intonation. The fall/rise intonation indicates surprise, disagreement, or request of a response/confirmation from listener. The third is the **flat** intonation. This intonation, in Ching’s opinion, indicates that the speaker probably does not want to speak.

**METHODS**

This study was a descriptive qualitative study aiming at describing students’ suprasegmental features of English pronunciation. The participants were twenty students of semester one of the English Education Department who took the Pronunciation Skills class. They were given a task to read aloud a short passage entitled *The Gorilla Joke* taken from the audio bank of short texts (British Council, 2006).
Before recording their own narration of the text, the students first listened to the audio text to get used to the sound and then were given the written text. The recording process was conducted only after the students felt comfortable with their pronunciation; therefore, they were given time to practice their pronunciation of the text several times before they recorded their narration. The recording process was also conducted without the lecturer’s presence to lower students’ anxiety. All and all, students were conditioned in a supportive environment that the students’ narration should not be affected by any psychological interferences.

The data were then analyzed with Wolcott’s data analysis procedures, namely description, analysis and interpretation. The results of the analysis were presented in figures to describe stress-timing adapted from Collins and Mees (2003) and a metrical foot diagram from Giegerich (1992).

**FINDINGS AND DISCUSSION**

**Intonation**

Some students did not produce the appropriate intonation patterns in their oral production. Students did not vary their intonation. They tended to have flat intonation when reading the text. The opening line ‘*A gorilla went into a bar and ordered a whisky*’ should be pronounced with the following intonation pattern:

\[
(4) \quad \text{┌} - - - - \text{┐}
\]

\[
A \text{ gorilla went into a bar and ordered a whisky.}
\]

Note:

A dot (•) = denotes an unstressed syllable; a ¬¬line (—) denotes a stressed syllable, with a thicker line showing the more prominent syllable, the symbol ( Γ) shows the fall-rise intonation, and the symbol ( γ) characterizes the rise/fall intonation.

(adapted from Collins and Mees, 2003)

Most students (17 students) produced the following intonation pattern in their narration:

\[
(5) \quad \cdot - - \gamma - - - \cdot \gamma - - - - - - \gamma
\]

A gorilla went into a bar and ordered a whisky.

The syllables [rɪlə], from [gə’ɹɪlə], are given a falling intonation and the ending phone [ə] was slightly lengthened, which was probably influenced by their native language, Bahasa Indonesia, in which it is common to start a story with a falling intonation at the initial phrase of the story by saying *suatu hari* [swʌtʊ hʌrɪ] or *pada suatu hari* [pʌdʌ swʌtʊ hʌrɪ] and; i.e. in the syllable [rɪ] of [hʌrɪ] and lengthening the ending sound to express a pause before continuing the story; [hʌriː].

\[
(6) \quad \cdot \cdot \cdot - \gamma
\]

*Pada suatu hari,*

[ pʌdʌ swʌtʊ hʌrɪː]

All the other words like *went* and *ordered* (in 2) are given equal stress as well as the function word *into* although normally in English speech intonation some words are more prominent that the others and the function words (*into*) are not normally stressed. However, the falling intonation at the end of the line shows that these students were aware of the function of a falling intonation that is to show a completeness of an utterance, that one sentence is complete. Some other students have different kinds of intonation patterns, like:
A gorilla went into a bar and ordered a whisky.

At (7) and (8) students were clearly aware of the signal of completion by producing the falling intonation at the end of the speech, but at (9) students (only two students) were clearly unaware of such a rule. At (8) and (9) students had flat intonation and tended to read the words one by one, not in a continuous flow of speech; moreover students were prone to put stresses on any occurring syllables.

Stress Assignment
In the excerpt below given the same task (4) above, students seemed to ignore the rule of stress assignment in the different word group. Naturally the assigned text (4) *A gorilla went into a bar and ordered a whisky*, is represented phonemically as:

(10) / ə ɡəˈrilə went intu ə baː ənd ˈoːdə(r)də ə ˈwiskI /

and represented phonetically as:

(11) [ ə ,ɡəˈrilə ˈwentintu əˈbaː ənoːda(r)də ə ˈwiskΙ ]

The phonemic representation at (10) puts the words in the text as single words; therefore when it is read then it will sound like we are actually reading ten single words not connected to one another. The phonetic representation in (11), however, shows how the sentence should be read fluently. Here are students’ profiles of stress assignment:

(12) [ ə ɡərilə wen intu ə bar æn or'də(r)də ə wiskI ]
(13) [ ə ɡəˈrilə went intu ə ˈbaː ən ˈoːda(r)də ə ˈwiskI ]
(14) [ ə ɡərilə went intu ə baː ən orˈdə(r)də ə wiskI ]
(15) [ ə ɡəˈrilə wenintu ə baː ænoːda(r)də ə ˈwiskI ]

The speech production of (12) shows that the students did not assign any stress at any syllables at all. Students read the words one by one but did not produce the connected speech which characterizes the fluent oral narration. In (13), students tried to put the right stress assignment at [ɡəˈrilə], [ˈoːda(r)d], and [ˈwiskI] although still did not produce any connected speech. In (14), students clearly made a mistake by assigning the stress at the second syllable of the word *ordered*, [ɔrdə(r)d]. In (15), however, there clearly is an effort to produce English connected speech which assign the right stress placement in [ɡəˈrilə] and [ˈwiskI]. Students narrated the phrases *went into* as [wenintu] and *and ordered* as [ænoːda(r)d] which also show that there is an effort to produce a connected speech closer to being fluent although students still miss [t] in *went into* [wentintu] and put [æ] instead of [ə] in *and ordered* [ænoːda(r)d].

Violated Obligatory Phonological Rules
Foot Assignment
Giegerich (1992: 258) defines a foot as as a stretch of phonetic material that begin at the onset of a stressed syllable and ends at the onset of the next stressed syllable. He also proposes that all speech when delivered fluently without interruption or hesitation is said to have rhythm. Collins and Mees (2003) state that the sentence stress becomes the basis of rhythm in English. Thus,
English, as a stress-timed language, has the rhythm of an utterance. This rhythm can be accomplished when all the feet of the utterance are isochronous (roughly equal in time), regardless of the number of syllables that each foot contains. To relate the foot assignment to an utterance narrated by the students, a metrical analysis can be conducted to show the phonological processes that the students missed.

One of the rules of foot formations is that it requires adjoining any stray syllable to the foot preceding it. The metrical tree for a phrase taken from sentence (4) is presented in diagram (16).

The feet shown in the diagram determine the timing units of the connected speech. The unstressed syllable [in] in [intu:] in the sentence above is adjoined to the preceding stressed syllable [went]. However, the students’ narration violates the feet formation rule, take one example of students’ narration as shown in Diagram 17.

The diagram shows that when the stray syllable does not adjoin the preceding stressed syllable, the narration then is more like a broken speech – one word at a time.

**Morphophonemics**

The second obligatory phonological process that the students violated is the morphophonemics, i.e., the rule of the allomorph formation in English. The rule of the formation of allomorphs [t], [d], and [Id] in the English past participles of regular verbs states that:
a. when the root of a verb is ended by a voiceless sound, then allomorph [t] occurs, e.g. stopped [stopt], liked [laikt], watched [wot[t]
b. when the root of a verb is ended by a voiced sound, then allomorph [d] occurs, e.g. begged [begd], judged [dʒədʒd]
c. and when the root of a verb is ended by either phone [t] or [d], the allomorph [Ιd] occurs, e.g. wanted [wontΙd], added [ædΙd]

The sample below shows the feature of students’ talk:

(18) ….the barman got curious and decided to find out why…. 
[də baːˈmæn got kuriəs ænd ˈdlsaid to fain aut wai] when it should be [dlsaidid]
(19) The barman served him and charged him…. 
[də baːrˈmæn əsə(r)vəd him ænd t[ʌrgd him] when it should be [sə(r)vəd]
(20) I’m not surprised with the…. 
[æm not ˈsəpræizd wit əθ] when [səpraist] should be the accurate pronunciation

Evidently seen in (18), (19), and (20), students still found it difficult to apply these rules.

**Pedagogical implication**

The study was conducted in the Pronunciation Skills class in a situation in which learners were asked to read a text aloud and not in a real communication context. It is insufficient to conclude that these students’ pronunciation will impair their communication. However, by analyzing and describing the features of the talks, some areas of weaknesses in the students’ pronunciation are observable. Thus, the findings of the study may be of a valuable input for a pedagogical implication in teaching pronunciation.

First, as stress, rhythm, and intonation play a very important role in building students’ intelligibility in communication, there should be more emphasis to the teaching of suprasegmental features. Accurate pronunciation and intelligible communication require appropriate stress placement (Sonia & Lotfi, 2016). Stress is vital as misplacement of it may impede understanding of meaning in communication and may result in several repetitions of utterances (Gilakjani, 2011). When students start learning segmental pronunciation, they need to follow it through with suprasegmental learning. Pronouncing single segments needs to be followed immediately with its context in a word and sentences. Cutting lesson times in discriminating single phonemes through drilling minimal pairs is advisable.

Secondly, the purpose of learning pronunciation needs to shift from native-like pronunciation to building intelligibility in communication. Learners need to be able to comprehend talks as well as to communicate appropriately. Accentedness, according to studies (Gilakjani, 2011; Rubin, 2011), may hinder communication only when it is accompanied by stress misplacement and sloppy intonation.

Third, the students involved in the study were semester one students who newly studied English. The kinds of mistakes they made may be driven by their lack of knowledge and experiences in the target language. These students’ lack of practice caused by their short study period may have contributed to their inaccuracies in pronunciation. Achieving clear appropriate pronunciation requires hard work, time, practice, and supporting facilities. To familiarize students to English sounds and talks, exposing students to audio and/or videos of speeches of English as Lingua Franca might be a great lesson idea. Designing classroom practice that would require students to practice pronunciation in different events like poetry reading, drama performance, and role playing to practice interactional talks can also be included in the designed learning activities.
CONCLUSION

English, being a stressed language, requires a speaker to assign stress at the right syllable. Speech may sound like broken speech, unnatural, or may be misunderstood when a certain speaker does not mind the stress placement. Intonation is also important to distinguish meaning and intention of the speaker. As suprasegmental features are considered vital in building students’ fluency and may contribute to communicative competence, it is important to put emphasis on the teaching of suprasegmental features in pronunciation classes. Students also need lots of exposure to learning materials that help them to distinguish these features of English speech. More achievable learning objectives in teaching pronunciation should also be set, in which the main goal of learning pronunciation is to get, not the native-like pronunciation, but the intelligibility and communication skills.

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