Prosodic Features of Jonglish Community: An Effort to A Glocalization

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Abstract:
The current study aims to glocalize the Jonglish community by comparing the pitch and intensity of the accents of native English speakers and Javanese speakers. Thirty-two university students whose first language was Javanese, coming from seven different regencies in Central Java, became the respondents. They are all first-semester students from various Java Island regencies, ranging in age from 19 to 21. The research instrument comprised an oral test of 10 academic vocabulary words and 5 phrases or sentences. Using PRAAT software, the oral test result is examined for the pitch and volume of the sound. The data show each respondent's and native speaker's average, lowest, and maximum pitch and intensity. The average pitch of the respondents increased by 127.57 Hz, whereas a natural speaker’s pitch is 198.25 Hz. The average Javanese accent’s intensity was measured at 65.11 decibels, while a native English speaker's accent was measured at 70.85 decibels. According to the results, there is no discernible difference between the native English speaker and the Javanese accent in terms of pitch or intensity. Even if there are imperfections in individual sounds, listeners may still understand and perceive speech as fluent as long as the prosodic features are well-executed. Consequently, it is acceptable to speak English with a Jonglish accent. Additionally, it might have an impact on cross-cultural communication strategies, foreign language teaching techniques, and linguistic studies on English-Jonglish prosody blending.

Keywords: glocalization, Jonglish, prosodic features
1. INTRODUCTION

Since English has become a more widely spoken language, speakers from diverse cultures and languages who do not speak English as their first language use it frequently (Sung, 2014). According to Guntzman (2000), non-native English speakers make up 80% of verbal engagements in which English is used as a foreign or second language. Because there are more non-native English speakers than native English speakers (Crystal, 2003), the English language no longer exclusively belongs to the native speakers of English-speaking nations (Norton, 1997; Peirce, 1995; Widdowson, 2002). At this point, English takes over as the world’s primary language. It is undoubtedly influential and widely used.

English is rapidly being utilized as a lingua franca (ELF) in the age of globalization and internationalization, which is defined as the act of communication in English amongst speakers of various first languages (Kirkpatrick, 2010; Seidlhofer, 2007). In terms of functions, English is intended for international communication in the outer circle, where native speakers are frequently absent (Li, 2006). Due to this occurrence, English has developed into a wide range of dialects and speech groups in nations where it is a foreign language. It has indeed evolved and adapted as it has been adopted by different cultures and speakers around the world. This has resulted in the emergence of various English varieties and accents, reflecting the diversity of its speakers. Non-native English speakers have made significant contributions to the development and enrichment of the language, bringing their own cultural perspectives and linguistic influences. English has gained prominence as a global language, it is just one of many languages spoken worldwide.

However, the best English accent to utilize when teaching EFL students is still up for dispute. One of the key factors in language learners’ acquisition has been extensively examined, and there are two competing schools of thought: aiming for a native-like accent or putting intelligibility first. According to research on pronunciation, segmental features do not improve comprehensibility and fluency as much as suprasegmental features do (Derwing & Rossiter, 2003; Kang & Pickering, 2010). In additional studies (Anderson-Hsieh et al., 1992; Derwing & Munro, 1997), the superiority of suprasegmental traits (such as intonation and speaking rate) over segmental features is also demonstrated. Furthermore, as long as suprasegmental qualities are reasonably precise, listeners may accept a large deal of imperfection in consonant and vowel pronunciation (Kang et al., 2010). They concur that it is crucial to have an accent that sounds like a native speaker because learning suprasegmental elements is being recognized as a key component of pronunciation learning. However, some studies suggest the opposite regarding picking up a regional accent. The fact that relatively few people were able to do it indicated that achieving a native-like accent during the SLA process is impossible (Wang, 2013). Even during the language learning process, EFL students frequently encounter many difficulties in acquiring an accent that sounds local, especially Indonesian.

Based on the earlier studies done by the researchers, it demonstrated a significant difference in English competence between different continents and nations. EF-Education-First (2020) found it is impossible for people from ‘very low’ language competence areas, such as the Middle East, to use English-based websites or converse with others who speak the language. Indonesia has many ‘very low’ language competence areas. Senowarsito & Ardini (2019) discovered Javanese students had difficulty pronouncing English words or phrases in continuous speeches in Indonesia. This assertion was validated by Wardani & Suwartono (2019) who explore the
interference of the Javanese language in the pronunciation of English phonemes. They uncovered Javanese learners of English encountered difficulties in pronouncing 13 consonant sounds /ʒ, v, θ, ð, f, k, d, η, j/ and 17 vowel sounds /æ, ɛə, i:, aɪ, aʊ, o, a, ɪ, uə, ɔɪ, aɪ,ʊə, ɔɪ, aɪ,ʊ, ɑ, i, uə, ɔɪ, aɪ/. While the rest, 14 English sounds /p, b, t, s, h, ʤ, m, n, l, r, w, l, ø, æ/ were clearly pronounced by the Javanese learners of English. There are also four factors influencing Javanese in learning English pronunciation, among others are; age, first language, exposure, and motivation. Further, Suzukida & Saito (2022) set out to examine which segmental and suprasegmental factors discriminate different levels of global second language (L2) pronunciation proficiency. The study revealed that the ratio of segmental errors with high communicative value (determined via the functional load principle) to distinguish between Low- and Mid-level L2 pronunciation proficiency. The majority of Indonesian studies focused on Indonesian students’ oral production which will be more understandable if it is similar to or close to that of the native speaker. However, learning English can be difficult if you want to sound like a native since Indonesia is a sizable nation with several ethnic groups and regional local dialects dispersed throughout. Apart from Bahasa Indonesia, which serves as the country’s official language, the majority of Indonesians speak their native tongue with a regional accent. They are affected by it as they learn English. Unavoidably, this effect causes them to frequently speak English with a regional accent. The Javanese, in this case, the largest tribe in Indonesia, who make up around 40.2% of the country’s overall population (Data and Statistics Center for Education and Culture, 2016), tend to speak English with a Javanese accent. The aforementioned assertion was backed up by some researchers who claimed that valuable insights into the mechanism of second and foreign language assessment and of language stereotyping (Hart, 1975; Jordan et al., 1999; Kang, 2008; Korzekwa et al., 2022; Martin, 2016). Depending on the geographic location of the speakers, English is currently spoken in a variety of ways, with social and cultural factors playing crucial roles in defining and determining the shape that English takes. Numerous varieties of English are being spoken around the world, including Singaporean English, Indian English, and Nigerian English. English has been incorporated into their native tongues.

The usage of the Javanese accent when speaking English by the Javanese people is referred to as "jonglish," which is an acronym for Jowo (Javanese) and English. In order for Jonglish to become as well-known as other English accent variants like Singlish (Singaporean English), Hinglish (Hindi English), and many others, the researchers were curious to know the prosodic characteristics of the Jonglish community to those of native speakers. Therefore, the current study tried to compare the pitch and intensity of both native and Jonglish speech. The knowledge gained from this research will help in understanding how bilingualism and language transfer affect suprasegmental elements of speech. Additionally, it might have effects on methods for teaching foreign languages, approaches to cross-cultural communication, and linguistic research on the blending of English and Jonglish prosody.

2. LITERATURE REVIEW

2.1 Prosodic Features

Rhythm, melody, and emotive qualities of language are influenced by prosodic features, which are suprasegmental aspects of speech that go beyond particular sounds (segments). These characteristics include voice quality, intonation, emphasis, rhythm, and pitch (Fox, 2000). Asghari (2021) also expressed that prosody is concerned with suprasegmental features of speech and refers to the speech rhythm and affective, pragmatic, and syntactic communicative functions.
The exploration of prosodic features for language identification is also essentially unaffected by prosodic features derived from pitch contour, amplitude contour, and duration (Mary & Yegnanarayana, 2008). Further, they explained that pitch contour refers to the variation in pitch over time and can help distinguish intonation patterns specific to certain languages. Amplitude contour relates to the variation in loudness or intensity and can reflect stress or prominence patterns in speech. Duration refers to the length of sounds or segments and can provide information about the phonetic and phonological properties of languages. Further, Asghari et al., (2021) revealed no significant differences in pitch standard deviation, voice intensity, and speech rate. Exploring the theoretical and empirical aspects of tone and intonation in languages, Gussenhoven (2004) delves into the phonological representations and processes involved in the use of tonal and intonational patterns in speech. In 2005, he examined the properties and structure of syllable timing, stress patterns, and temporal organization in speech. Mirfendereski & Ostovar-Namaghi (2021) filled the gap by theorizing experienced EFL teachers’ experience of teaching prosodic features of speech. Teachers’ perspectives were explored through qualitative interviews and then analysed in line with the coding schemes of grounded theory. Iterative data collection and analysis revealed eight techniques that lead to effective communication with a focus on prosody in pronunciation teaching. Those are in line with the focus of the current research on analyzing the pitch and intensity of both native and Jonglish speech. Prosodic features are also important for effective communication, as they provide contextual cues, convey emotions, and help disambiguate meaning. They are essential in speech recognition, synthesis, and understanding systems, as well as in fields like linguistics, phonetics, and second language acquisition.

### 2.2 Jonglish Community

Not all native speakers use the same English variety (Li, 2006). In Indonesia, students struggle to acquire a native-like accent when learning English. Aside from Bahasa Indonesia, the national language, most Indonesians speak in their native language with a regional accent. It affects them as they learn English. This has an unavoidable impact, and they frequently speak English with a regional accent rather than Bahasa Indonesia. The manner in which Javanese speak English with a Javanese accent is known as Jonglish, which is an abbreviation of Jowo (Javanese) and English.

**Jonglish** refers to the use of the English language by speakers of the Javanese language, which is primarily spoken on the island of Java in Indonesia. It can encompass various aspects, including Javanese accents and speech patterns when speaking English, the incorporation of Javanese words or phrases into English conversations, or the use of English as a second language by Javanese speakers. On the other hand, with their vernacular, Javanese people have a distinct accent. They are easily identified by the heavy plosive sound they produce in almost all of their voices. When they speak English, the majority of them will be easily identified by the sound. This is due in part to the fact that some English phonemes are absent from the Javanese language. It also appears in the way Javanese people pronounce English consonants (Purwaningsih, 2020).

A Javanese accent is a distinctive way of speaking or saying words that is unique to the Javanese language, which is primarily spoken on the Indonesian island of Java. It should be noted that Javanese is a separate language, and the Javanese accent refers to how Javanese speakers pronounce Indonesian words in English. The Javanese accent in English refers to how English is spoken by native speakers of Javanese, the language spoken primarily on the Indonesian island
of Java. However, the different accent between English and Javanese accents which is hard to erase raises another issue (Ardini, et al., 2016; Ardini, et al., 2022). For example, on vowel pronunciation, Javanese speakers may pronounce certain English vowels differently. For instance, an "e" sound may be pronounced as "uh" or "uh," whereas a "o" sound may be pronounced as "a" or "oh". Moreover, it happens on syllable stress. Javanese speakers may stress different syllables compared to standard English. This can cause variations in rhythm and emphasis in words and sentences.

2.3 Glocalization

Glocalization is a concept that refers to the adaptation of global products, services, or ideas to fit the local cultural and linguistic contexts. It involves combining global and local elements to create a hybridized or localized version. The first to come up with this terminology was Robertson (2000) who discussed glocalization as a process of localization within the broader context of globalization. He touches on glocalization as an important aspect of the global-local dynamics. Further, Robertson (2015) examined the relationship between globalization and glocalization that emphasize the coexistence and interdependence of global and local forces.

The unprecedented global spread of English, like other aspects of globalization, has increased the degree to which the language has become localized, serving to encode the communication needs of various speech communities. This dual process of globalization and localization of English is known as language glocalization. At the level of cultural conceptualizations, glocalization of English involves a number of processes. These include (a) the use of English to encode cultural conceptualizations previously associated with other languages, (b) the spread of Anglo-English cultural conceptualizations to non-Anglo speech communities, and (c) cultural conceptualization blending (Sharifian, 2018).

The examples of accents which have already glocalization are Singlish (Singaporean English) and Hinglish (Hindi English). The Singapore English accent refers to the unique way English is spoken in Singapore (Lim, et al., 2010). It is influenced by the country's multilingual and multicultural context, incorporating elements from various languages, including Malay, Chinese, Tamil, and other regional dialects. Lim (2004) explained some key features of the Singapore English accent. Singapore English typically exhibits distinct pronunciation patterns. Some notable features include the use of a retroflex “r” sound (similar to the “r” sound in Indian English), the omission of the final “s” sound in plural nouns and verbs (e.g., “two apple” instead of “two apples”), and the pronunciation of “th” as “t” or “d” (e.g., “tink” for “think” or “dere” for “there”). Meanwhile, Hinglish refers to a hybrid language that combines elements of Hindi and English. It is primarily used in informal contexts and is commonly spoken in India, particularly in urban areas. Shankar (2008) examined the language practices, including the use of Hinglish, among South Asian American teenagers in Silicon Valley. While this work focuses on the diaspora context, it provides valuable insights into the role of language in shaping identities and cultural experiences. The Hindi-English accent often includes distinct pronunciation characteristics. Some notable features include the use of retroflex sounds (such as the “d” and “t” sounds pronounced with the tongue curled back), the substitution of “v” for “w” sounds (e.g., pronouncing “water” as “vater”), and the use of dental fricatives (such as pronouncing “th” as “t” or “d”).
3. RESEARCH METHODOLOGY

This research employed a descriptive qualitative design to analyze the data. Qualitative is an approach to exploring human phenomena (Creswell & Creswell, 2019). The non-native speakers originated from seven regencies in Central Java. The total sample of this research included 32 university students whose mother tongue was Javanese. They were all first-semester students ranging in age from 19 to 21. They had all started studying English in high school. Table 1 reveals the respondents’ backgrounds, while Figure 1 indicates the respondents’ distribution region on the island of Central Java.

The respondents in this study were Universitas PGRI Semarang English education majors, and the information was gathered at the end of the semester. The tool also included an oral test or data collecting technique that used 10 academic vocabulary words and 5 of them in phrases or sentences. This approach likely aimed to assess or gather information about participants’ proficiency or usage of academic vocabulary in context. By including phrases or sentences, the test or data collection technique aimed to assess participants’ ability to not only recognize or define academic vocabulary words but also to use them appropriately and effectively in meaningful contexts. This approach can provide a more comprehensive assessment of language proficiency and usage beyond simple word recognition.

In order to ensure that the tools used to collect data are accurate and measurable, instrument validation is a critical stage in the research process. Pilot testing was done in the current study to verify the instrument. A pilot study was carried out by the researchers with a small group of individuals who closely matched the intended sample. Finally, the results of the pilot study were used by the researchers to make the necessary changes, particularly to some of the words and phrases used in this research.

Using PRAAT software, the recording’s pitch and volume were examined, and the results were compared to those obtained from analyses of English native speakers. PRAAT was likely used to analyze the pitch and volume characteristics of recordings from non-native English speakers. By comparing these results to analyses of recordings from English native speakers, researchers can investigate potential differences or similarities in pitch and volume patterns between the two
groups. Pitch analysis in PRAAT involves examining the fundamental frequency (F0) contour, which represents the variation in pitch over time. Researchers can measure properties such as average pitch, pitch range, intonation patterns, and pitch accents to assess differences in pitch between non-native and native speakers.

4. RESULTS

In this study, the prosodic characteristics of native speakers and community members who speak Jonglish were compared. The results begin by displaying the analysis of the Javanese accent followed by the native speaker analysis, as follows:

4.1. Javanese Accent

Figure 2. Praat Analysis of Javanese Accent

Figure 2 above shows the overall results of the Praat analysis which includes the spectrogram, pitch, formants, and intensity.

Figure 3. Drawing of Analysis of Javanese accent with the Textgrid

Figure 3 represents the sound part of each word that is analyzed by dividing it by syllable to see the sound analysis results. In this study, we use Praat to analyze the calling of the sentence "stay up to date on the latest opinion, analysis, and conversation through social media".

Indonesian Journal of EFL and Linguistics, 8(2), 2023
Figure 4 is the result of an analysis of the magnitude of the Pitch in the respondent's pronunciation, as represented by a blue line graph. The vowel and consonant symbols that exist in the entire sound are depicted in the image alongside the pitch analysis.

The analysis of Figure 5 above can assist the researcher in determining where the mean, maximum, and minimum words should be placed in the analysis of the respondent's tone of voice. It is explained if the average tone is in the word "stay", the minimum tone is in the word "media", and the maximum tone is in the word "analysis".
Further data from Figure 6 can be obtained based on the picture above to show the mean, minimum, and maximum pitch in the sound being analyzed. The Pitch object represents a periodicity candidate as a function of time; this periodicity refers to the vibrations of the acoustic, perceptual, or vocal cords. The pitch range is defined as the number of octaves that the sound produced can cover, from the lowest to the highest note. From the pictures above, the data can be obtained as follows:

Table 4. The result of Pitch

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stay</td>
<td>127.59 Hz</td>
<td>85.43 Hz</td>
<td>449.57 Hz</td>
</tr>
<tr>
<td>Media</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The "intensity" listed in Praat is the RMS amplitude of the signal, which is related to (but not the same as) the perceptual construct "loudness". Intensity is a sound wave that is measured in decibels (dB) and is used to determine sound strength and to extract sound in decibels. Picture 6 shows the intensity level with a green line graph for analysis per syllable.

Figure 7. Analysis Intensity of Javanese Accent

Figure 8 above shows that the word "and" has the lowest intensity or graph, and the word "date" has the highest intensity or graph.
The following detailed data is based on an analysis of intensity graphs for respondents with a Javanese accent:

Table 5. The Result of Intensity

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>65.11 dB</td>
<td>-</td>
</tr>
<tr>
<td>Minimum</td>
<td>38.21 dB</td>
<td>And</td>
</tr>
<tr>
<td>Maximum</td>
<td>72.58 dB</td>
<td>Date</td>
</tr>
</tbody>
</table>

4.2. Native Speaker Accent

Figure 10 represents the overall analysis of the sound spoken by a native speaker using the spectrogram analysis components of pitch, intensity, and formants.
Figure 11 is the result of pitch analysis for English native speakers with American accents using the same sentence pronunciation, namely “Stay up to date on the latest opinion, analysis, and conversation through social media”.

The analysis Figure 12 above can help the researcher observe where the average, minimum, and maximum words are in the analysis of native speaker voice particularly for American accent. It is explained if the mean tone is in the word "to", the minimum tone is in the word "media", and the maximum tone is in the word "stay".
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Same as the pitch of the Javanese speaker in the picture presented previously, it shows a complete description of the mean, minimum, and maximum pitch for analysis of English native speakers' pronunciation. The data from the pictures above can be obtained as follows:

Table 6. The result of Pitch

<table>
<thead>
<tr>
<th>Mean</th>
<th>198.25 Hz</th>
<th>to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>133.16 Hz</td>
<td>media</td>
</tr>
<tr>
<td>Maximum</td>
<td>316.62 Hz</td>
<td>stay</td>
</tr>
</tbody>
</table>

From Table 6 above the mean pitch in the native speaker accent is 198.25 Hz for the word "to" and 316.62 Hz for the minimum tone for the word "media" and the maximum tone for the word "stay" with a total of 133.16 Hz.

![Figure 14. Intensity Analysis of Native Speaker Accent](image)

Figure 14 above is further explained in the image below:

![Figure 15. Drawing of Intensity Analysis using Praat](image)

In Figure 15, it can be seen that the weakest intensity or minimum graph is in the word "to" and the maximum or strongest intensity graph is in the word "conversation".
The graphs for respondents with an English accent reveal the following specific information based on the intensity analysis:

Table 7. Result of Intensity

<table>
<thead>
<tr>
<th>Mean</th>
<th>70.85 dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>34.85 dB</td>
</tr>
<tr>
<td>Maximum</td>
<td>79.36 dB</td>
</tr>
<tr>
<td>conversation</td>
<td></td>
</tr>
</tbody>
</table>

According to Table 7, the native speaker accent's mean pitch is 70.85 dB. The word "to" received a minimum tone of 34.85 dB, whereas the word "conversation" received a maximum tone of 79.36 dB.

5. DISCUSSION

This study sought to compare the prosodic features of native speakers and Jonglish community. The results indicated that the mean tone of 127.57 Hz for the word “stay” with a minimum tone of 85.43 Hz for the word "media" and a maximum tone of 449.57 Hz for the term “analysis”. The results show that native English speakers, especially those with American accents, have a mean accent tone of 198.25 Hz for the word “to” a lowest accent tone of 133.16 Hz for the word “media” and a maximum accent tone of 316.62 Hz for the word “stay”. The results indicated that there is no discernible difference between native English speakers and Javanese speakers in terms of accent pitch. Pitch is, therefore, a crucial aspect of sound analysis. Changes in the fundamental frequency (F0), known as pitch, serve as an essential auditory cue for intonation, pitch, and lexical emphasis.

Similar to this, a native speaker’s accent has a mean intensity of 70.85 dB, with minimum and maximum tones for the words “to” and “conversation” of 34.85 dB and 79.36 dB, respectively. The results of the Javanese accent increased by 65.11 dB for the mean of intensity, but not with some words; the word “and” has the lowest intensity wave at 38.21 dB, while the word "date" has the highest intensity wave at 72.58 dB. The results of the intensity comparison show that there is no discernible variation in intensity between speakers with a Javanese accent and those who are native speakers.
The results of the current research were supported by these studies; Derwing & Rossiter (2003), Kang & Pickering (2010), Kang et al. (2010), and Wang (2013). They agreed that segmental qualities do not enhance comprehensibility and fluency as much as prosodic features. Additionally, listeners may overlook significant consonant and vowel pronunciation imperfections as long as prosodic features are sufficiently exact. Because of few people were able to achieve it, it was clear that it was impossible to acquire a local accent using SLA. Those studies indicated that prosodic features, such as intonation, rhythm, and stress patterns, play a crucial role in comprehensibility and fluency in second language acquisition (SLA). According to these studies, the accuracy of prosodic features outweighs the significance of segmental qualities (individual consonant and vowel pronunciation).

The results suggest that even if there are imperfections in individual sounds, listeners may still understand and perceive speech as fluent as long as the prosodic features are well-executed. This implies that achieving native-like proficiency in acquiring a local accent through SLA is particularly challenging due to the difficulty of mastering prosodic features. The studies mentioned highlight the importance of prosodic features in achieving effective communication in a second language (Gorjian et al., 2012). However, it is important to note that while native-like pronunciation and accent acquisition may be challenging, it does not imply that achieving a high level of proficiency and effective communication in a second language is impossible. It is worth mentioning that these results are based on specific studies and may not represent a consensus among all researchers in the field of SLA. The field of second language acquisition is complex and subject to ongoing research, and individual variation in language acquisition and proficiency can play a significant role.

6. CONCLUSION
The study aimed to glocalize Jonglish community by contrasting the prosodic features between Jonglish accent and native, which suggests a comparison of their respective intonation patterns, rhythm, stress placement, and other relevant prosodic elements. The outcome of listening to native English speakers with American accents and non-native speakers with Javanese accents. According to the results, there is no discernible difference between a non-native speaker’s accent and a Javanese accent in terms of pitch or strength. The results could shed light on the influence of language background and cultural factors on prosody and provide insights into the distinct prosodic characteristics of the Jonglish community. Consequently, it is acceptable to speak English with a Jonglish accent. Pitch and intensity in prosodic elements of speech, however, still have an effect on bilingualism and language transfer. Nonetheless, it might still be understood if it is used in communication. The findings of this study will help to clarify how bilingualism and language transfer affect prosodic speech elements. Additionally, it might affect methods for teaching other languages, cross-cultural communication approaches, and linguistic research on English-Jonglish prosody blending.

7. REFERENCES


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