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A COMPARISON OF PHONOLOGY OF ENGLISH AND JAVANESE: CONTRASTIVE STUDY ON PBI STUDENTS OF UIN NORTH SUMATRA MEDAN

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KEYWORDS

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ABSTRACT

This study aims to analyze the differences and similarities in the phonological systems of English and Javanese through a contrastive study approach among students of the English Education Department at UIN Sumatera Utara Medan. Using a qualitative descriptive method, data were collected through interviews, classroom observations, and pronunciation recordings. The results indicate significant phonological differences, especially in the articulation of /θ/, /ð/, and long vowels in English, which do not exist in the Javanese phonological system. These differences result in phonological interference that affects students' English pronunciation

INTRODUCTION

Phonology is a crucial component in foreign language learning as it is directly related to oral communication skills. In the context of learning English as a second language (L2), the learner's first language (L1) background plays a significant role in influencing pronunciation quality. As stated by Mesthrie (2008), English is not only used as a native language but also functions as a standardized non-native language. This implies that English has been adopted as a lingua franca in many countries across the globe. According to Dardjowidjojo (2003:66), English was first introduced in Indonesia in 1914 with the establishment of the first junior high school. However, at that time, English was not taught as a tool for communication. After Indonesia gained independence, the government declared English as the first foreign language to be taught in schools. For many Indonesian students, particularly those from local language backgrounds such as Javanese, the phonological differences between L1 and L2 often lead to phonological interference.

One of the hardest parts of learning a language is mastering pronunciation, particularly when the learner's L2 has phonemes or phonological principles that are different from those in their L1. A learner's pronunciation is influenced by a number of elements, including age, exposure, identity, motivation, and—above all—L1 influence, according to Kenworthy (1987). When speaking a second language, learners frequently rely on well-known articulatory patterns from their home tongue, which causes phonological traits to be transferred. This process, sometimes referred to as phonological interference or negative transfer, can result in persistent pronunciation problems that impair communication and intelligibility (Swan & Smith, 2001; Lott, 1983).

The "critical period hypothesis" is one of the most important ideas in the field of second language acquisition. It says that after a certain age, it gets harder and harder to speak like a native speaker (Lenneberg, 1967; Scovel, 1988). Adult learners, including college students, often have pronunciation patterns that are stuck in time because of their first language. These problems are especially bad when the phonological structure of the L1 and L2 is very different.

Javanese, as the students' L1, possesses distinctive phonological features that differ from those of English, such as the absence of interdental sounds /θ/ and /ð/, and long vowels. Therefore, it is essential to understand how these differences affect the English pronunciation of Javanese-speaking students, particularly those enrolled in the English Education Department at the State Islamic University of North Sumatra (UIN Sumatera Utara) in Medan. This study aims to identify the types of phonological interference and the factors that contribute to pronunciation difficulties in English among students of the English Education Department who are native speakers of Javanese.

According to Sudaryanto (1991), Javanese phonology has six vowel phonemes and fewer consonants than English. It's hard for native Javanese speakers to make the same sounds in English since there are no diphthongs or long vowels, and in some situations there are no aspiration or voicing differences. For example, Javanese doesn't have the interdental fricatives /θ/ and /ð/, hence they are commonly replaced with /t/ and /d/, respectively. Similarly, Javanese-English pronunciation frequently neutralizes the distinction between /i:/ and /ɪ/, resulting in lexical misconceptions (Purwanti & Adityarini, 2023).

The issue is made worse by inadequate exposure to native English speakers. English is mostly taught in written or grammar-focused formats in many Indonesian classrooms, with little attention paid to speaking and listening. As a result, pupils frequently acquire a solid command of grammar and vocabulary but continue to struggle with pronunciation. The absence of phonetics resources, the shortage of qualified pronunciation teachers, and the restricted usage of technology tools like speech analysis software, listening labs, and pronunciation training applications all contribute to this disparity (Gilakjani & Ahmadi, 2011).

Without phonological competence, even grammatically correct speech may be hard for listeners to understand (Canale & Swain, 1980). Phonological competence is a crucial part of communicative competence. In addition to impairing clarity, L1

interference-induced mispronunciations can also decrease students' confidence and communication readiness. Thus, phonological interference is not only a linguistic issue but also a pedagogical one for English language teaching in Indonesia and other multilingual settings.

METHOD

This study employed a descriptive qualitative approach. The research subjects consisted of five fourth-semester students from the English Education Department (PBI) at the State Islamic University of North Sumatra (UIN Sumatera Utara), all of whom are native speakers of Javanese. Data were collected through the following methods: Direct observation of pronunciation practices during class sessions, semi-structured interviews exploring students' learning experiences and pronunciation difficulties, Pronunciation recordings of selected English words containing target sounds such as /θ/, /ð/, /i:/, /u:/, and others. The data were analyzed using a contrastive analysis approach by comparing the students' pronunciation with the standard pronunciation found in phonetic dictionaries (IPA-based).

By cross-checking results from observations, interviews, and audio recordings, triangulation was used to guarantee the veracity of the data. Furthermore, member checking was done to make sure that the way students' pronunciation difficulties were interpreted matched their experiences. To find systematic phonological interference, the study will examine specific sound replacements, such as the substitution of alveolar stops for English interdental fricatives. This approach is consistent with earlier research to examine L2 pronunciation difficulties using qualitative descriptive frameworks, especially for learners who are heavily influenced by regional languages.

RESULTS AND DISCUSSION

1. Identified Phonological Differences

The recordings and observations revealed consistent patterns of pronunciation errors, as shown in the following table:

Target Phoneme	Common Subtitution	Example
/θ/	/t/	think → \[tɪŋk]
/ð/	/d/	this → \[dɪs]
/i:/	/ɪ/	beat → \[bɪt]
/u:/	/u/	food → \[fud]

These findings indicate that students tend to substitute unfamiliar sounds with the closest equivalents available in the Javanese phonological system.

According to the phonological theory of markedness, learners typically substitute unmarked (simpler and more familiar) sounds from their native language for marked (less common and more complicated) sounds in the target language (Eckman, 1977). The interdental fricatives /θ/ and /ð/, for instance, are regarded as marked sounds

across languages and are not present in Javanese. In Javanese, learners naturally substitute the unmarked alveolar stops /t/ and /d/ for them. Additionally, the substitutions of vowels reveal that Javanese does not distinguish between vowel lengths, which causes misunderstandings in English minimum pairings (e.g., “beat” vs. “bit”, “food” vs. “foot”). These problems can lead to misunderstandings in spoken English and are indicative of segmental phonological interference.

2. First Language Interference

Most participants were unaware of their pronunciation errors, suggesting that phonological interference from their first language occurs unconsciously. The consistency of these errors indicates that the differences between the L1 and L2 sound systems have a significant impact on the students’ English pronunciation. These findings support the view that English language instruction should explicitly address phonetic aspects, especially sounds that are unfamiliar or non-existent in the learners’ native language.

The idea of negative transfer in second language acquisition, which holds that aspects of the native language impede the acquisition of the target language, is consistent with this unintentional interference (Odlin, 1989). The observed errors are systematic rather than random, and they result from the pupils’ L1’s established phonological principles. Prior research (e.g., Purwanti & Adityarini, 2023) has verified that comparable interference patterns are frequently seen by Javanese speakers learning English. The significance of focused pronunciation training is highlighted by these findings. Accuracy can be increased and learners’ awareness raised with the use of strategies like articulatory explanations, auditory discrimination training, and visual aids like IPA charts. To combat fossilized errors, teachers should give special attention to phonemes that are missing from the students’ first language (Celce-Murcia et al., 2010) and provide them plenty of practice with constructive criticism

1. CONCLUSION

This study shows that Javanese and English have important phonological distinctions that have a big impact on how Javanese-speaking pupils pronounce English. Errors in pronunciation, such as replacing long vowels with their shorter counterparts, /θ/ with /t/, and /ð/ with /d/, amply demonstrate the phenomenon of phonological interference. Due to the effect of the students’ first language, these mistakes are systematic rather than random. Because of this, a lot of students unintentionally employ their L1 articulatory tendencies when pronouncing words in English, which impairs comprehension and communication skill.

The results highlight how crucial it is to provide explicit phonetic and phonological instruction in English language instruction, especially for students from regional language backgrounds like Javanese. Teachers should stress contrastive phonological instruction, give students a lot of practice speaking and listening using visual-audio aids, and help them become more conscious of L1 influence. These focused initiatives can enhance pupils’ oral English proficiency and lessen fossilized pronunciation problems. It is recommended that future studies examine comparable interference patterns in students from different L1 backgrounds and evaluate the efficacy of phonetic training methods.

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