



English Pronunciation Among Fataluku Speakers: Consonants and Vowels in Focus

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ABSTRACT

This study investigates the challenges faced by native Fataluku speakers in learning English pronunciation and the potential confusion experienced by native English speakers when interacting with Fataluku speakers who are currently learning English. These challenges arise due to phonetic differences between the two languages which can affect the effectiveness of cross-language communication. This study used voice recordings from native Fataluku speakers and analyzed consonant and vowel sounds by applying the Perceptual Assimilation Model (PAM). This model allows the identification of phonetic similarities and differences between Fataluku and English sounds, as well as the prediction of potential difficulties in second language sound acquisition. The results show that Fataluku speakers face significant difficulties in pronouncing some English sounds. The main difficulties are found in consonant pairs such as /ŋ/ and /n/, which are often mispronounced or not consistently realized. In addition, vowel pairs such as /ɪ/ and /ʊ/ are also challenging, mainly due to the absence of similar sounds in Fataluku. These findings highlight the difficulties in pronunciation not only affect Fataluku learners' confidence in speaking English, but can also lead to misunderstandings in cross-cultural interactions. As a result, cross-language communication becomes less effective, potentially affecting social integration, educational and employment opportunities for Fataluku speakers. Therefore, these findings have important implications for language teaching practices, including the need for teaching strategies that focus on difficult sounds and a contrastive phonetic approach to help Fataluku speakers improve their English speaking skills.

INTRODUCTION

As an international language, English has undergone significant changes due to global cultural, political, and economic influences (Halliday, 2020; Rahman & Saputra, 2021; Cho 2022). These changes include the development of new vocabulary, grammatical shifts, and pronunciation adaptations to suit local contexts (Muntasir et al., 2022; Ningsih & Rahman, 2023). English is not only spoken by native speakers in countries such as the United States, the United Kingdom, and Australia, but also by speakers from various other language backgrounds (Lewis & Gary 2015; Rahman, 2023). It is estimated that there are currently more than 1.4 billion English speakers worldwide, and this figure could rise to 2 billion in the next few years

(Boltom & Bacon-Shone, 2020). This shows the importance of understanding the challenges faced by minority language speakers when learning English as a second or even third language.

On the other hand, Fataluku is one of the Papuan languages spoken by around 37,000 people in Timor Leste, particularly in the Lospalos region (Heston & Locke, 2019). It belongs to the Timor-Alor-Pantar language family and is related to the Oirata language spoken in Kisar Island, Maluku, Indonesia (Viegas, 2011). As part of efforts to preserve culture and national identity, Fataluku is recognized as a national language under Timor Leste's constitution (Viegas, 2011; McWilliam, 2008). However, its official status is below Tetun and Portuguese, which are the official languages of the country. Fataluku's role as a symbol of local culture adds to the challenge of maintaining language authenticity amidst the need to master English, which increasingly dominates international communication.

In a phonological study conducted by Heston (2015), it was found that the difference in phonological systems between Fataluku and English can be an obstacle for Fataluku speakers in learning English. The study used the Perceptual Assimilation Model (Best, 1994) to compare the phonological characteristics of the two languages, specifically consonants and vowels. The study involved male Fataluku speakers in their early twenties and showed that novice speakers tend to transfer phonological features from their native language into English pronunciation. This phonological transfer becomes one of the main causes of difficulty in pronunciation.

The difficulties that Fataluku speakers face in mastering certain consonants and vowels in English can lead to confusion for native English-speaking listeners. For example, some sounds in English may not have similar equivalents in the Fataluku phonetic system, thus causing Fataluku speakers to substitute those sounds with more familiar sounds in their language. This can result in less effective communication and potential misunderstandings in international contexts, especially in professional or academic situations.

Hence, understanding the phonological differences between Fataluku and English is crucial to creating more effective language learning strategies. English teachers or educators need to develop approaches that are sensitive to students' linguistic backgrounds, including by providing exercises that focus on sounds that are difficult for Fataluku speakers. This approach could also include using technology such as artificial intelligence-based pronunciation training software to provide detailed feedback to students.

The phonological challenges faced by Fataluku speakers in learning English reflect the complexity of the relationship between the local language and the global language. By developing teaching approaches based on phonological research, we can help preserve local languages such as Fataluku while providing its speakers with opportunities to participate in global communication. This strategy will not only improve their English proficiency, but also ensure that the local language remains relevant in the era of globalization.

Therefore, this study aims to examine in depth the phonetic differences between Fataluku and English and their implications for pronunciation difficulties faced by Fataluku speakers, while exploring the

adaptation and application of the Perceptual Assimilation Model (PAM) in English pronunciation teaching strategies to improve learning effectiveness, so that it is expected to make theoretical and practical contributions in the field of applied linguistics, especially in teaching English to minority language speaking communities such as Fataluku by understanding the relationship between phonetic aspects and linguistic perception (Baese-Berk et al., 2022; Tyle et al., 2024; Freeman et al., 2022; Fuhrmeister et al., 2023).

METHODS

The participants who took part in this research were native speakers of Fataluku, which is a language that is spoken by people in the eastern region of Timor-Leste. A combination of the participants' level of proficiency in Fataluku and their position as beginning students of English as a second language were taken into consideration during the selection process. Several phases were included in the process that was used for this study. In the first step of the process, recordings of native speakers of Fataluku were processed in order to ascertain the consonant and vowel phonemes that are present in the language. The International Phonetic Alphabet (IPA) representations were determined based on earlier linguistic studies (Heston & Locke, 2016).

Following this, the Perceptual Assimilation Model (PAM) that was created by Best (1994) was utilized in order to compare the consonant and vowel sounds of Fataluku with those of English. This involved classifying English sounds according to the degree to which they were similar to or different from the phonological categories that were present in Fataluku. In the analysis, the primary focus was on identifying potential challenges that Fataluku speakers encounter when learning English pronunciation. Particular attention was paid to consonant pairs, such as /ü/ and /n/ in English, in comparison to /n/ in Fataluku. Additionally, vowel pairs, such as /i/ and /o/ in English, were compared to the vowel system of Fataluku.

Further, the data that was obtained from the analysis was then examined in order to determine patterns of assimilation and potential difficulties that Fataluku speakers may have encountered when pronouncing English sounds. Categories of assimilation, which were proposed by Best and Tyler (2007), were then applied in order to evaluate the degree of similarity that exists between the sounds of English and the phonological categories that are present in Fataluku.

RESULTS AND DISCUSSION

One of the consonant pairs that is likely to present difficulties for those who speak Fataluku is the combination of /ŋ/ and /n/ in English, which is different from the consonant /n/ in Fataluku. In this particular instance, the Fataluku language does not acknowledge the consonant /ŋ/. However, it does possess the consonant /n/, as illustrated by the term *sapun* [sapũn] (Heston and Locke, 2016). According to Heston

(2014), Fatakulu has a limitation on the distribution of consonants, and "it is more likely that the absence of these particular consonants in word-final position is the result of specific changes that have taken place over the history of the language."

In the process of learning to speak in English, the consonant limitation in Fataluku can present a challenge for the learner of Fataluku as a first language. It is especially noticeable when they directly transfer their existing phonetic trait into the second language.

In the process of category-goodness assimilation of PAM-L2, the sounds /ŋ/ and /n/ are accommodated. In this particular category, two sounds are seen to be almost identical to one another. This is due to the fact that one of the sounds, /ŋ/, does not exist in Fatakulu, as stated by Best and Tyler in 2007. To put it another way, two phonemes in English, /n/ and /ŋ/, are seen to assimilate equally or poorly to a single phoneme in the first language (/n/). The realization of the /n/ sound in Fataluku is a match with the /n/ sound in English. However, the realization of the sound /n/ does not match or even worse matches with the realization of the /ŋ/ sound in English. In light of this, it is possible that the Fataluku L1 speaker may pronounce the /ŋ/ sound in the word sing [sɪŋ] as [sɪn].

On the other hand, Best and Tyler (2007) suggest that if the word is used frequently, then it is more likely to be mastered in a shorter amount of time. One additional factor that is likely to impede the realization of the phoneme /p/ for individuals who speak Fatakulu is the placement of the articulation of the individual sounds /n/ and /ŋ/. In both Fatakulu and English, the sound /n/ is articulated from the alveolar position, whereas the sound /p/ is articulated from the velar position. It is possible that the Fatakulu speaker will require some time in order to acquire the ability to correctly pronounce the sound of /ŋ/.

Based on the potential realization of the phoneme /ŋ/, which can be pronounced as /n/ for members of the Fatakulu language. It is our contention that the native speaker of English will have struggle distinguishing between the minimal pair sound and other sounds. Due to the fact that the incorrect realization of phonemes can result in different meanings for the listener, for instance, in the case of sing [sɪŋ], if the speaker fails to correctly pronounce the sound /ŋ/, then it will sound like sin [sɪn], which has a completely different meaning.

However, this will not be the case if we use it in a context or with word that does not have the close sound to a certain word, for example when the Fatakulu speaker pronounces the word something /'sʌm.θɪŋ/, it is still relatively simple to comprehend. In spite of this, the instructor ought to make this the primary focus of their attention because it has the potential to influence the meaning of minimal pair words.

Vowel pairs are going to be the subject of the second pair that will be discussed. There are just five vowel phonemes in the Fatakulu language, according to Heston and Locke (2016). These phonemes are a, i, u, e, and o each. However, according to Rogerson-Revell (2017), the English language, notably in Received Pronunciation (RP), contains twenty vowels. The front vowels in Fatakulu, such as /i/ and /e/, are higher than the back vowels that correspond to them, such as /u/ and /o/; nevertheless, the vowel represented by the letter

/a/ is somewhat more central. There is also a long and a short vowel that belongs to the Fatakulu vowel. These vowels are typically indicated by the repetition of the vowel, such as in the words "hiir-e" and "neer-e" (Heston and Locke, pages 3–4).

In addition to this, Fatakulu possesses a surface diphthong as well, which is characterized by a series of vowels (Heston and Locke, 2016). Further, /ɪ/ and /ʊ/ are the first vowel pair that an individual who speaks the Fatakulu language may encounter difficulties with. The vowels /ɪ/ and /ʊ/, in contrast to the vowel in Fatakulu, are incorporated into the category of Assimilation inside the category of Uncategorized. According to Best and Tyler's (2007) Power Analysis Model (PAM), the vowels /ɪ/ and /ʊ/ do not appear to be well mapped onto a specific Fatakulu vowel category. These vowel sounds, on the other hand, are located in between a number of other vowel sounds in Fatakulu. Within the realm of Fatakulu, the /ɪ/ sound can be found somewhere between the /i/ and /e/ sounds. However, the sound /ʊ/ is not clearly translated into either /u/ or /o/, but rather it sits somewhere in between those two sounds.

Furthermore, we contend that it will be difficult for individuals who have just started to speak English and whose first language is Fatakulu to differentiate between those sounds. This is because the sounds in question are not reflected in their vowel system, and the sounds of /ɪ/ and /ʊ/ are quite near to two vowels in Fatakulu. Furthermore, Fabra and Romero (2012) believe that in order for a native English listener to be able to differentiate between these sounds, successful discrimination will depend on the distance in phonological space between the two sounds representing the contrast. The greater the distance between them, the simpler it will be to differentiate between them. As a result, we believe that this occurrence will be difficult to accurately predict and will be reliant on the word that is formed. If a sound like /bʊk/ is spoken as /buk/ or /gɪv/ is pronounced as /giv/ (without actually focusing on long or short /i/ or /ɪ/), then the listener will perceive it as a sound with an accent from a foreign language.

Two vowel pairs, /ʌ/ and /ɔ:/, will be compared as the second pair of vowels to be analyzed. Some examples of vowel sounds that can be found in words include /kʌt/ and /brɔ:d/. In Fatakulu, the sounds of these vowels will be matched to the sounds of /a/ and /o/. In the circumstance that we evaluate these two pairs of vowels with PAM, we will find that they belong to the Two Category Assimilation category. Two sounds in the second language that are perceived as being equivalent to the sound of the vowel in the first language are included in this category.

To put it another way, the vowel sounds /ʌ/ and /ɔ:/ do not exist in Fatakulu. However, it is considered to be equivalent to the sounds /a/ and /o/ due to the fact that there is no other possible close match to those sounds. On the other hand, when they listen to the sound in the word, it will be simple for them to differentiate between the sounds of /ʌ/ and /ɔ:/ . As a result of the Fatakulu speaker's ability to differentiate between the mental phonemes of the sounds /a/ and /o/, this phenomenon occurs. Therefore, the individuals who are just beginning to acquire Fatakulu as a second language are most likely to hear these sounds as /a/ and /o/.

Nevertheless, we concern that it will take some time for the beginner English learner whose first language is Fatakulu to master the correct pronunciation of this vowel when they generate the sound of this vowel. Given that it is pronounced as both /a/ and /o/, it is quite likely that the speaker will say it in that manner. It is therefore possible that the sound can be easily distinguished or recognized, whereas the creation may not be as straightforward to do so.

When it comes to the native English listener, the sound production of vowels /ʌ/ and /ɔ:/ that is produced by the Fatakulu students will be comprehensible. Despite the fact that it might not be entirely accurate, the listener will still be able to comprehend it. For instance, if the Fatakulu L1 learners say /kʌt/ and /brɔ:d/, it is still comprehensible and does not really change the meaning. This is the case in the case of /kʌt/ and /brɔ:d/. In light of this, the listener will not experience any difficulties in comprehending what the speaker is saying. we assert that the listener will just consider the sound to be an accentuated sound from a foreign language rather than misinterpreting the sound it is making.

CONCLUSION

With regard to the distribution of consonants, Fatakulu is characterized by certain restrictions, and it has no presence of certain consonants that are present in English. Fatakulu, on the other hand, only has five vowels, which is a significant reduction from the number of vowels in English. As a consequence of this, people who speak Fatakulu might have trouble pronouncing certain English words, which could potentially result in misunderstandings for people who speak English as their first language. In this document, there are three different combinations of vowels and consonants. /n/ and /ŋ/, which are the initial consonant pair, are categorized as belonging to the category of category-goodness assimilation. Under the category of Uncategorized-Uncategorized Assimilation, the second pair of vowels consists of the vowels /ɪ/ and /ʊ/ of the English language. An example of a pair that falls under the category of Two Category Assimilation is the combination of the sounds /ʌ/ and /ɔ:/.

REFERENCES

- Baese-Berk, M. M., Chandrasekaran, B., & Roark, C. L. (2022). The nature of non-native speech sound representations. *The Journal of the Acoustical Society of America*, 152(5), 3025-3034. <https://doi.org/10.1121/10.0015230>
- Best, C. T. (1994). The emergence of native-language phonological influences in infants: A perceptual assimilation model. *The development of speech perception: The transition from speech sounds to spoken words*, 167(224), 233-277. The MIT Press. <https://psycnet.apa.org/record/1994-97584-006>
- Best, C. T., & Tyler, M. D. (2007). Nonnative and second-language speech perception: Commonalities and complementarities. In *Language experience in second language speech learning: In honor of James Emil Flege* (pp. 13-34). John Benjamins Publishing Company. <https://doi.org/10.1075/llt.17.07bes>
- Bolton, K., & Bacon-Shone, J. (2020). The statistics of English across Asia. *The handbook of Asian Englishes*, 49-80. <https://doi.org/10.1002/9781118791882.ch3>
- Cho, J. (2022). English as a global language?: Naturalization of English through intellectual habitus in Korean academia. *International Journal of the Sociology of Language*, 2022(277), 61-75. <https://doi.org/10.1515/ijsl-2021-0080>
- Fabra, L., & Romero, J. (2012). Native Catalan learners' perception and production of English vowels. *Journal of Phonetics*, 40, 491-508. <https://doi.org/10.1016/j.wocn.2012.01.001>
- Freeman, M. R., Blumenfeld, H. K., Carlson, M. T., & Marian, V. (2022). First-language influence on second language speech perception depends on task demands. *Language and speech*, 65(1), 28-51. <https://doi.org/10.1177/0023830920983368>
- Fuhrmeister, P., Phillips, M. C., McCoach, D. B., & Myers, E. B. (2023). Relationships between native and non-native speech perception. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 49(7), 1161. <https://doi.org/10.1037/xlm0001213>
- Halliday, M. A. K. (2020). Written language, standard language, global language. In C. L. Nelson, Z. G. Proshina, & D. R. Davis (Eds.), *The handbook of World Englishes* (2nd ed., pp. 331–348). UK: John Wiley & Sons Inc.
- Heston, T. (2014). The nature and underlying representations of long vowels and diphthongs in Fataluku. *Oceanic Linguistics*, 53(2), 467-479.
- Heston, T. M. (2015). *The segmental and suprasegmental phonology of Fataluku* (Doctoral dissertation, University of Hawai'i at Manoa).
- Heston, T. M., & Locke, S. (2016). Fataluku. *Journal of the International Phonetic Association*, 1-7.
- Heston, T. M., & Locke, S. (2019). Fataluku. *Journal of the International Phonetic Association*, 49(3), 419-425. <https://doi.org/10.1017/S0025100316000190>

- Lewis, M. P., & Gary, F. (2015). Simons, and Charles D. Fennig (eds.). 2013. *Ethnologue: Languages of the world*, 233-62.
- McWilliam, A. (2008). Fataluku healing and cultural resilience in East Timor. *Ethnos*, 73(2), 217-240. <https://doi.org/10.1080/00141840802180371>
- Muntasir, M., Rahman, F., & Haekal, M. (2022). The Effects Of Corrective Feedback On Fluency And Accuracy In 4/3/2 Activity: A Case Of Students At ELTO Spell-Out Program. *Elite: English and Literature Journal*, 9(1), 42-54. <https://doi.org/10.24252/elite.v9i1.26526>
- Ningsih, N. S., & Rahman, F. (2023). Exploring the Unique Morphological and Syntactic Features of Singlish (Singapore English). *Journal of English in Academic and Professional Communication*, 9(2), 72-80. <https://doi.org/10.25047/jeapco.v9i2.3933>
- Rahman, F. (2023). *What We Talk About When We Talk About Language And Philosophy*. Deepublish.
- Rahman, F., & Saputra, N. (2021). English as International Language Revisited: Implications on South Korea's ELT Context. *Scope: Journal of English Language Teaching*, 6(1), 08-15. <http://dx.doi.org/10.30998/scope.v6i1.9383>
- Rogerson-Revell, P. (2017). English vowels and consonants. In *The Routledge handbook of contemporary English pronunciation* (pp. 92-121). Routledge.
- Thomson, R. I. (2022). The relationship between L2 speech perception and production. In *The Routledge handbook of second language acquisition and speaking* (pp. 372-385). Routledge.
- Tyler, M. D., Ball, C. C., & Best, C. T. (2024). Listening And Speech Perception. In *The Routledge Handbook of Second Language Acquisition and Listening* (pp. 29-41). Routledge.
- Viegas, S. D. M. (2011). Três etnografias nas décadas de 1960-1970: os Fataluku. *Atas do Colóquio 'Timor: Missões Científicas e Antropologia Colonial'*.