

## Language Interference of Batak Angkola-Mandailing Language to Indonesian: A Case Study

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### ABSTRACT

This research aims to investigate the common characteristics of Indonesian pronunciation deviations made by undergraduate college students from Batak Angkola and to observe the factors that contribute to the interference. The participants are two female Batak Angkola undergraduate students who have been living in Bandung for four years and are active speakers of Bahasa Indonesia and Batak Angkola-Mandailing language. To compare the results, four other participants who come from Jakarta and Bandung, have the same age and gender, and are not active speakers of any Indonesian local languages are also recruited. Based on the pilot test conducted prior to the research, the phonemes that are investigated are /e/, /ə/ and plosives (/b/, /d/, /g/, /k/, /t/, /p/). The data are collected through two types of assessment, which are a reading task, and pronunciation tests in the form of three word lists. By using software Praat, the deviations analysis and a further acoustic phonetic analysis of vowel and consonant duration are conducted. In general, there are two types of pronunciations deviations made by the participants: devoicing and allophonic shift that occurs between /ə/ into /e/ and /e/ into /ə/. The factors that contribute to the interference are speaker bilingualism background, language distant, anxiety, empathy and group solidarity.

**Keywords:** Language interference, pronunciations, acoustic phonetics, Batak Angkola-Mandailing language.

## INTRODUCTION

Indonesia is a complex multilingual and multicultural nation in which several languages coexist and often influence each other. The process, which is also called as language contact, causes several inevitable linguistic phenomena including language interference (Offiong, 2005; Houmanfar, Hayes, and Herbst, 2005). Language interference refers to “deviation from the norms of either language which occurs in the speech of bilinguals as a result of their familiarity with more than one language” (Weinreich, 1953).

One of the types of language interference can be found in pronunciation. The phenomenon is particularly apparent in a multilingual society such as in Indonesia since the speakers are exposed to at least two languages that are frequently and simultaneously used in daily activities. It thus creates diverse pronunciation varieties of the languages. The varieties of pronunciation can cause some difficulties that may be encountered by its speakers. Some Javanese

speakers, for example, are often called ‘*ndeso*’ (‘villagers’) or ‘*medok*’, which have unpleasant connotations, when they speak Indonesian that is heavily influenced by Javanese accent. Another instance is Batak language speakers who are stereotyped as loud or even rude and uncivilized (Bruner, 2006). These stereotypes may discourage the speakers to speak regional languages or Indonesian since the correctness of pronunciation affects the appropriateness of communication.

In general, there are two opposite views regarding effects of language interference. Some find that interference, especially the knowledge and structure of first language, fosters the learning of second language (Masinde, 2012) and even enhances cognitive control functions (Festman, Rodriguez-Fornells, Münte, 2010). On the other hand, Randall (1997), Eltrug (1984), and Richard, Platt, and Platt (1992) find that interference plays a major role in the errors that are produced in one of the languages. Furthermore, Ellis (1997) states that the further apart two languages are structurally,

the higher the instances of errors made in the second language. Errors here refer to a systematic and consistent deviation of language; it is not something coincidental or randomly made (Norrish, 1983). Errors are important to be investigated since errors can provide an understanding or evaluation on how someone learns a new language (Corder, 1967).

There have been many studies conducted on language interference. For instance, Alonso (1997) analyzes errors that beginner Spanish students make when learning English as foreign language and it is found that most errors are caused by interference of structures from the Spanish to the English language. Baloch (2013) also conducts a study on how Arabic (the mother tongue) interferes in the learning of English (the second language) in terms of spellings. The author finds that the replacement of 'b' with 'p' and vice versa occurs because of the mother tongue interference. Furthermore, Erwina (2011) conducts a study of language interference in Indonesian context and finds that the errors

found are caused by mother tongue i.e. Javanese, slang language and foreign languages such as Arabic, English and Dutch. Unfortunately, there have not been many studies conducted on language interference that occurs in Indonesian context which involves Batak Angkola-Mandailing language. This research will focus on analyzing the common characteristics of Indonesian pronunciation deviations made by undergraduate college students from Batak Angkola and observes the factors that contribute to the interference.

## **METHODOLOGY**

### **Research Design**

Consistent with the nature of the research questions, the research employs a descriptive qualitative approach, in particular case study research design supported by descriptive quantification. Qualitative research is suitable for this research since it fits the nature of qualitative research; there is no absolute 'truth' and it attempts to explain, describe and analyze data

(Phillips, 1990; Andi-Pallawa and Alam, 2013).

The form of case study that is employed in this research is descriptive case study. Descriptive case study aims to present a detailed contextualized understanding of a particular phenomenon. Therefore, this design is in line with the aims of this research which are to observe the common characteristics of Indonesian pronunciation deviations made by undergraduate college students from Batak Angkola and investigate the factors that contribute to the interference.

### **Research Site and Participants**

Bandung is chosen as the setting of the research since Bandung is one of the metropolitan cities in Indonesia where many ethnic groups meet and many languages are used. Although many languages are used, most of the people tend to use Indonesian to ease their communication with people from such diverse backgrounds.

Two Batak Angkola college students who speak and use Batak Angkola-Mandailing language and Indonesian fluently in daily activities

are recruited as the participants of the research. In addition, four native Indonesian speakers from Jakarta and Bandung are also recruited to compare the results. Purposive sampling technique is used in this research to avoid sampling error and because the research focuses on describing a phenomenon based on an-in-depth analysis. All of the participants are female and have been staying in Bandung for more than four years. The four other participants that are recruited (P3, P4, P5, and P6) are not active speakers of any Indonesian local languages.

### **Data Collection Techniques and Data Analysis**

The data are collected through two types of assessment, which are a reading task, and pronunciation tests in the form of word list. All of the data are recorded by using a voice recorder. A reading task and a word list are used as the instruments of the research to obtain natural yet controlled data. In the reading task, the participants are asked to read a 146-word text. The text is in the form

of a fable entitled “Balas Budi Sang Semut” written by Ernes (2013). Reading task is conducted to obtain the participants’ pronunciation in a continuous speech.

Prior to the actual data collection session, a pilot test is conducted to predict the possible sounds that are going to be investigated. Based on the pilot test, the phonemes that are investigated are /e/, /ə/ and plosives (/b/, /d/, /g/, /k/, /t/, /p/). To investigate the participants’ pronunciation of the phonemes, pronunciation tests in the form of word list are also conducted. There are three types of word list: two list of actual words in Indonesian and a list of a three-letter closed syllable words. The first word list (Word list 1) is used to collect the participants’ pronunciation of vowel /e/ and /ə/ while the second word list is used to collect the participants’ pronunciation of plosives. The word lists that consist of actual words in Indonesian are made based on *Kamus Besar Bahasa Indonesia* and the target phonemes are put in every part of a syllable. To maintain the consistency and validity of the data,

it is also important to make sure that the words that are selected are frequently used by Indonesians. In addition, the participants are also instructed to read a list of a three-letter closed syllable words. This word list is made to investigate further the participants’ pronunciation of plosives and to accommodate the fact that one-syllable words in Indonesian are rarely found. The words consist of voiced plosive sounds in the initial position, five Indonesian vowels (/a/, /e/, /i/, /o/, and /u/) in the medial position, and all plosive sounds in the final position.

After collecting the data, the data are transcribed and analyzed by using software called Praat. Praat is an open-source software used to analyze, synthesize and manipulate sounds (Boersma and Weennink, 1999). Prior to the transcription, the recorded speech is transcribed in the form of orthographic transcription with the assistance of one Indonesian native speaker. The involvement of the Indonesian native speaker to assist this data transcription is intended to minimize transcribing

error. The transcriptions are then compared and any disagreements are resolved through negotiation. After that, the data are transcribed by following the International Phonetic Alphabet system. Regarding the data collected from word list 3, a further acoustic phonetic analysis of vowels and consonant durations are also conducted.

## RESULTS AND DISCUSSION

### Pronunciation Deviations

The results show that out of all of the phonemes produced by the participants, there are two main types of pronunciations deviations made by the participants: devoicing and allophonic shift that occur between /ə/ into /e/ and /e/ into /ə/. The pronunciation deviations made by the participants are presented below.

Table 1: Pronunciation Deviations made by the participants

Type of Deviation	Assessment	Occurrences	Percentage (%)
Allophonic shift	Reading task	3	1.056
	Word List 1	29	18.125
Devoicing	Reading task	-	-
	Word List 2	9	50
	Word List 3	75	83.33

Unlike the common stereotype, the allophonic shift does not only occur between /ə/ into /e/, but also from /e/ into /ə/. All of the deviations occur on medial position and final position of the syllables. The total number of deviation is also noticed to be significantly different from the deviations produced by the monolingual participants. In some occurrences, the participants are also noticed to be hesitating in producing words that contain phonemes /e/ and /ə/. The hesitation is observed from pauses before uttering a word, emphasis on the target phonemes and also repetition of the utterances. The examples of the allophonic shift deviations made by the participants are presented below.

Table 2: Examples of the Allophonic Shift

input	Participants'		
	actual pronunciation	deviation	participant
/beban/	[be.ban]	ə → e	P1
/duel/	[du.əl]	e → ə	P2

Another deviation that is observed is devoicing. The total occurrence of devoicing is eighty

four alternations, with nine alternations observed in the data collected from word list 2 and seventy five alternations observed in the data collected from word list 3. In all of the devoicing alternations observed, the phoneme /b/ is realized as [p], /d/ is realized as [t] and /g/ is realized as [k]. The alternation only occurs when the phonemes are put as the coda of the syllable and no alternation is found on initial position. The alternation is also found in the utterances produced by the participants who come from Jakarta and Bandung, with the least utterances found in the utterances produced by the participants from Bandung.

Based on the results, an acoustic phonetic analysis is also conducted by analyzing the duration of the vowels and voiced plosives (in the final position) produced by the participants. The analysis is presented in the table below.

Table 3: Duration of vowels and voiced plosives

duration	P1 & P2	P3 & P4	P5 & P6
$\bar{x}$ vowels (s)	0.169367	0.140841	0.178575
$\bar{x}$ voiced plosives (s)	0.064198	0.078287	0.122385

The participants from Bandung have the longest duration of vowels and voiced plosives compared to other participants. On the other hand, the participants from Jakarta have the shortest duration of vowels and voiced plosives. However, the voiced plosives duration of the participants from Jakarta and Batak Angkola are notably similar. The devoicing alternation and the consonant duration patterning indicated that although the monolingual participants are not active speakers of any local languages, the environments where they come from along with the variety of languages spoken there might contribute greatly on their pronunciation.

### Factors that contribute to the interference

Based on the tests that are conducted, the factors that contribute to the language interference are concluded based on the factors that contribute to interference proposed by Weinreich (1970, pp.64-65) and Yi (2012).

The first factor is speaker bilingualism background. It can be

seen from the patterning of the deviations. Since the results show that the deviations occur differently in each group of participants, it can be inferred that although the first language of all of the participants is Indonesian and the language has been learnt since childhood, exposures to local languages spoken in the area they live influenced their Indonesian pronunciation and the manifestation might occur differently for each person. For instance, the devoicing produced by the participants from Jakarta and Bandung show different patterning although both group of participants are not active speakers of any local languages. The speakers from Jakarta might be influenced by Betawi language and the speakers from Bandung might be influenced by Sundanese, with the prevoicing phenomenon in it. While the speakers from Batak Angkola, although their first language is Indonesian and learned Batak Angkola-Mandailing language starting from when they are in elementary school, might be

significantly influenced by Batak Angkola-Mandailing language.

Many of the studies in language interference find that when the first language has already been fully acquired, the influence is often reported as largely one-way, from the first language to second language. However, the notion of first language and second language in Indonesia context is not clear since there are hundreds of languages and dialects that are spoken simultaneously in its regional areas and most of the people who live in Indonesia are able to master at least two languages; the regional language and Indonesian, the national language. Indonesian is mostly used in formal settings, such as academic or business, while the language used in daily interaction is more various with influence from local languages and foreign languages such as English, Chinese or Arabic. In Indonesian context, exposure to other language(s) plays a major role in the language use, instead of age in which it is acquired.

The next factor is language distance, especially the typological difference. One of the prominent



differences between Indonesian and Batak Angkola-Mandailing language is the vowel phoneme system. In Indonesian, there are six vowels: /a/, /i/, /u/, /e/, /ə/, /o/. Meanwhile, in Batak Angkola-Mandailing language, there are only five vowels: /a/, /i/, /u/, /e/, /o/. Furthermore, Indonesian also does not differentiate the phoneme /ə/ and /e/ in the writing system. These factors may cause problem for the participants from Batak Angkola when they pronounce words in Indonesian. This non-existent /ə/ sound caused the participants to replace the sound with the closest phoneme available in Batak Angkola-Mandailing language; /e/. It may also make them treat the phonemes as allophones and thus mispronounce the phonemes /ə/ and /e/ in the Indonesian words. A similar phenomenon is found in Korean in which /l/ and /r/ may be viewed as possible variants of one liquid sound. This is because in Korean, the English retroflex /r/ does not exist and phoneme /l/ has three allophones: apical flap [ɾ] in the initial position, a lateral [l] in the coda position, and a geminate [ll] in

the intervocalic position (Kim and Smith, 2013).

However, the deviations are not only found from /ə/ into /e/, but also from /e/ into /ə/. It may be caused by individual factors: anxiety. Based on observation and interaction spent with participants 1 and 2, anxiety plays a major role in influencing their language use. When their pronunciation is 'incorrect' and got corrected by their friends, they feel discouraged to speak Indonesian words which contain /ə/ or /e/ sounds. It has affected their attitude when they speak in Indonesian. They become very careful when speaking in Indonesian because they worried that they will make mistakes again. The anxiety is shown when they are hesitating in producing words that contain phonemes /e/ and /ə/. The hesitation is observed from pauses before uttering a word, emphasis on the target phonemes and repetition of the utterances.

The last factors that contribute to the interference are empathy and group solidarity. Empathy here refers to the awareness and flexibility of the speakers' own

culture and linguistic norms in order to feel emotionally 'inside' or be a part of the target language speech community. From the interview conducted prior to the research, it is known that when participant 1 and 2 started to live in Bandung to study, they use Indonesian to interact with her university's friends. However, they use Batak Angkola-Mandailing language more frequently to communicate with people especially with their friends that come from the same area. It is also further supported by the fact that they live in a boarding house with people who come from the same region, and they use Batak Angkola-Mandailing language to communicate with each other. Even when they speak using Indonesian with people from the same region, they still use Batak Angkola-Mandailing's accent. They argue that using Batak Angkola's accent while speaking Indonesian creates a close bond between the group members who come from the same region. It can also be implied that they are aware and proud of their ethnical identity as Batak Angkola people and feel 'inside' the speech

community when creating a close between the group members who come from the same region by frequently using Batak Angkola-Mandailing language. This is in line with statement that Indonesians tend to use the informal variation of Indonesian or local languages in non-formal situations.

## CONCLUSION

This research investigates the common characteristics of Indonesian pronunciation deviations made by undergraduate college students from Batak Angkola. The sounds that are investigated are limited into two vowels: /e/ and /ə/ and six plosives: /b/, /d/, /g/, /k/, /p/, /t/. The speech production is observed from continuous speech and single-word production. In addition, the factors that contribute to the interference are also analyzed.

The results show that out of all of the phonemes produced by the participants, there are two main types of pronunciations deviations made by the participants: devoicing and allophonic shift. Allophonic shift refers to refers to situations in which

allophones of a phoneme undergo changes. The allophonic shift does not only occur between /ə/ into /e/, but also from /e/ into /ə/. The total occurrences of allophonic shift observed are thirty two, with twenty nine alternations (18.125%) found in the data collected from word list 1 and three alternations (1.056%) found in the data collected from the reading task. All of the deviations occur on medial position and final position of the syllables.

Another deviation that is found is devoicing. The total occurrence of devoicing is eighty four alternations, with nine alternations (50%) observed in the data collected from word list 2 and seventy five alternations (83.33%) observed in the data collected from word list 3. In all of the devoicing alternations observed, the phoneme /b/ is realized as [p], /d/ is realized as [t] and /g/ is realized as [k]. However, the alternation only occurs when the phonemes are put as the coda of the syllable and no alternation is found on initial position.

After analyzing the deviations occurred, a further acoustic phonetic analysis is also conducted by analyzing the duration of the vowels and voiced plosives (in the final position) produced by the participants, which are collected from word list 3. The devoicing patterning and the inconsistencies between the total occurrences of the devoicing alternation and the vowel duration indicated that out of the two acoustic features mentioned above, the consonant duration is the one which influenced the devoicing alternation the most. The devoicing patterning and consonant duration differences also show that although the monolingual participants are not active speakers of any Indonesian local languages, the environments where they come from along with the variety of languages spoken there might contribute greatly on their language use, especially in this case, their pronunciation. Thus, it can be argued that in a diglossic country, such as in Indonesia, one's pronunciation will always be influenced by other languages that

are used and spoken in his/her regional area.

The factors that contribute to the interference are also concluded based on the works of Weinreich (1970) and Yi (2012). These factors are including speaker bilingualism background, typological difference, anxiety, empathy, and group solidarity.

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