

Gender, mobility and contact

Stability and change in an Acehese dialect

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We examine variation in a rural variety of Acehese spoken in Aceh Province, to better understand the impact of long-term contact with Indonesian and increasing urbanization. The Great Aceh variety is characterized by variable realization of word-final (t) as a dental vs. glottal stop. Analyses of over 2,000 tokens of this variable from a corpus of spontaneous speech from 35 speakers indicate that the variability is relatively stable among men, and among women of high mobility, measured in terms of education, occupation, and time spent outside Great Aceh. Women with low mobility produce the lowest rates of [t̚], and in this group we observe a higher rate of [t̚] by younger than older women, suggesting change over time. We thus find both stability – among those who have long enjoyed high levels of mobility – and change – among those most affected by recent social changes, namely low-mobility women.

Keywords: variation and change, language contact, mobility, sociophonetics, glottalization, Acehese, Indonesian

1. Language contact in Great Aceh

Indonesia is one of the most multilingual countries in the world, a diversity which is reflected in the languages included in this volume. There is widespread shift from the local languages to Indonesian, even among those with millions of speakers (e.g., Abtahian, Cohn, & Pepinsky, 2016; Florey, 2010). This shift is taking place alongside large-scale social changes, including urbanization and increased mobility associated with greater access to education (e.g., Abtahian et al., 2016; Smith-Hefner, 2009). While there have been many studies documenting such language shift, there has been less work examining variation and change in the local languages that remain widely spoken. Zen and Starr (This volume) document loss of phonological contrasts in the Javanese of Javanese-Indonesian bilingual

children, resulting in a system that more closely resembles that of Indonesian. In this paper we examine the speech of Acehese-Indonesian bilinguals residing in a rural area, comparing adults of different generations to assess change over time in their variety of Acehese in the face of long-standing contact with Indonesian, but also increasing urbanization.

Acehnese, spoken in the northern tip of Sumatra, is one of the largest local languages of Indonesia, with some 3.5 million speakers (Ethnologue 17, from Abtahian et al., 2016, p.145). Aceh province consists of eighteen regencies, and here we focus on the Aceh Besar Regency, or Great Aceh. Great Aceh is a largely rural area, with a population of approximately 350,000; it covers around 3,000 square kilometers and borders on the provincial capital, Banda Aceh, a city of some 270,000 people (Badan Pusat Statistik, 2019). Indonesian, as the national language, is the language of education, administration and mass media, while Acehese is the main language of the home, and for interactions with friends and family, religious activities, and cultural events. Thus, Indonesian is associated more with formal contexts, and Acehese with informal, casual or intimate contexts. In rural villages across Great Aceh, Acehese remains the dominant language even in public settings, such as hospitals and the judicial system, and in Banda Aceh, where people from different regions of Aceh province come together, Acehese is also widely used, alongside Indonesian and other local languages of the region.

In his grammar of Acehese produced in the late 1980s, Durie noted that many people in Acehese villages could not speak Indonesian (1987, p.7). Influence of Indonesian was nevertheless being felt at the lexical level, with “educated people often sprinkl[ing] their speech with Indonesian words and idioms”, something which he reported to be particularly so for men (1987, p.6). He also observed large generational differences, and hypothesized that “linguistic change has been speeded by the greater mobility of people today” (1987, p.6). This increasing mobility continues to the present. For example, the provincial capital used to be difficult to reach due to limited transportation, and travel from Great Aceh to Banda Aceh was quite restricted. This is no longer the case today, with good roads and transport readily available. It is now common for Acehese living in Great Aceh to go to the capital for work, study, or entertainment, some commuting, others moving there for shorter or longer periods of time. The greater availability of travel has also impacted education. While the older generation may have travelled to Banda Aceh to attend university, today many travel to Banda Aceh from as early as secondary school. This means that residents of Great Aceh are experiencing greater contact with Indonesian at a younger age than would have formerly been the case. For example, a 59-year old teacher recorded for this study, Buk Joh, reports that she attended senior high school in Great Aceh, and

she and her classmates could not speak Indonesian well, though they could understand it. She recalls communication difficulties during a study tour outside Great Aceh, where she met students from other regions who couldn't speak Acehnese. She later attended university in Banda Aceh, where she studied with people of different linguistic backgrounds, and notes that she was soon able to speak Indonesian confidently. Contrast this with Aisyah and Asa, two young female university students, who have lived all their lives in Great Aceh, but attended school in Banda Aceh from high school through to university.

Great Aceh has also seen a change in gender roles over time, with younger women today experiencing more mobility than the previous generation, and consequently greater contact with Indonesian. In the past, men had more opportunities than women to travel outside Great Aceh for education and for work, and even in Great Aceh, men were more outwardly oriented, in charge of most affairs outside the home, including for example the household shopping. Women's roles, in contrast, were traditionally assigned primarily to the home, or to the local neighborhood. Women were less likely to attend university, and work opportunities were fewer and were more oriented toward the Great Aceh community. Considering the participants in this study, the occupations of the older women tend to be located in Great Aceh, and even for those working in an environment in which the official language is Indonesian (for example, as teachers and civil servants), most of their interactions would be with others from Great Aceh. This gender split has lessened over time, and the opportunities for young women in education, occupation and access to the urban center have become more similar to those available to men. For example, like many of the men who participated in this study, several of the young female participants commute from Great Aceh to Banda Aceh to work in highly qualified occupations, as is the case for Kamal and Jack, a nurse and pharmacist respectively.

Great Aceh thus provides an ideal site in which to examine the impact of language contact in a well-established bilingual community, and one which is becoming increasingly urbanized, bringing about even greater contact with Indonesian, in particular for women. We begin in Section 2 by describing an original corpus of Acehnese created for this study, capturing the speech of Acehnese-Indonesian bilinguals residing in Great Aceh. In Section 3, we identify a linguistic feature appropriate for testing the impact of language contact, namely word-final (t) realization, which is variably realized as a dental or glottal stop in the Great Aceh variety, but not in Indonesian or other varieties of Acehnese. We then apply quantitative methods to analyze the constraints on this variation. A first observation is that the dental realization is near categorical in reading tasks, but is used at a similar rate to the glottal realization in spontaneous speech (Section 4). We therefore concentrate on the spontaneous speech data to probe the effects of gen-

der, mobility and contact over time (Section 5). These analyses reveal both stability and change, each manifesting in different groups within the community, consistent with broader social changes being experienced.

2. Data for the study of variation and change in Great Aceh

2.1 Great Aceh speech corpus

To examine variation and change in Acehese, it was necessary to compile an appropriate speech corpus, as there is no such corpus available for this language. The community of focus is that residing in the region of Great Aceh, to which we had insider access, as the second author (an Acehese native speaker, who grew up in Banda Aceh) lived there for many years and her mother is from there. Participants were recruited via her extended network, including family members, friends, friends of friends, and so on, and recordings took place in the participants' homes, in cafés, and at a local school. Participants were told that the data would be used for a study of spoken Acehese, but they were not given any information about the linguistic focus of the research. The data were collected by the second author in 2019, on a Zoom H5 recorder in a single session for each speaker.

Two different kinds of data were collected, sociolinguistic interviews and reading tasks. Sociolinguistic interviews are an established method for recording the everyday spoken vernacular, which has been found to provide “the most systematic data for linguistic analysis” (Labov, 1984, p. 29). They involve an unstructured set of topics believed to be of interest to the participant, with the goal of getting them talking as naturally as possible, with minimal self-monitoring. Topics covered for this study include childhood memories; participation in traditional events; experiences of the 2004 tsunami disaster which hit this region particularly hard; knowledge of, and attitudes to, different Acehese dialects; and other topics that arose spontaneously during the course of the recordings. These were conducted in Acehese, though there was also some use of Indonesian as speakers naturally switched between the two languages. Interviews lasted on average 20 minutes, and ranged from 7 to 31 minutes. They were transcribed in Elan (Lausberg & Sloetjes, 2009) by the second author, constituting a corpus of spontaneous spoken Acehese of approximately 70,000 words.

The reading tasks provide a comparison of speech patterns in more formal or careful contexts, where participants are likely to engage in a higher degree of self-monitoring (Labov, 1972, Chapter 3). In the case of Acehese, such tasks may also be associated with the school setting, and as such with Indonesian. Thus, we

might expect any contact features from Indonesian to manifest more strongly in the reading tasks than in the sociolinguistic interviews. We conducted two reading tasks, one, a reading passage consisting of two, short, authentic Acehnese texts from the Acehnese primary school textbook *Meurunoe Bahasa Aceh*, “Moto” and “Seuneubok” (Sulaiman, Ali, & Lani, 2008), and the other a word list of a total of 50 words, of which six had word-final (t). Participants were asked to read each word three times, pausing between each reading; the second production was extracted for analysis.

2.2 Participants

All participants grew up in Great Aceh in an Acehnese speaking environment, and were living there at the time of recording, in sub-districts around Banda Aceh.¹ Based on personal knowledge of the participants and comments arising in the course of the interviews, Acehnese remains the main language used in the home, while both Acehnese and Indonesian are widely used in the community. Of the total of 35 participants, five report speaking Acehnese with their spouse but Indonesian, or both Acehnese and Indonesian, with their children, a reflection of generational shift in the community. One participant (Parkop) speaks Indonesian with his wife, as she is a speaker of another language of the region, Gayo, and does not speak Acehnese. As an indication of relative strength in each language, participants were asked to provide a self-rating of their proficiency in both Indonesian and Acehnese from 1 (poor) to 5 (native-like). All participants rated themselves as 5 for Acehnese, and all but one rated themselves as 4 or 5 in Indonesian.²

Table 1 presents the demographic breakdown of the participants, 13 males and 22 females, here split into two age groups to provide a relatively equal age distribution (the younger group with a mean age of 26 and a median of 27, and the older group with a mean and median age of 51). We use age comparisons to assess whether change has taken place, based on the robustly demonstrated concept of apparent time, according to which the relative stability of variation patterns in adults means that the speech of adults of different ages can be used as a proxy for speech of different time periods (Sankoff, 2006).

We include three distinct measures of contact with Indonesian, each of which is also associated with greater mobility: formal education, occupation, and time

1. Participants come from the following sub-districts: Darul Imarah, Lhok Nga, Darul Kamal, Blang Bintang, Montasik, Jantho, Indrapuri, Ingin Jaya, Darul Imarah, Krueng Barona Jaya, Lhong and Suka Makmur.

2. The oldest speaker in the sample (a 72-year old woman, Miwa) rated herself as a 3, stating that though she can understand Indonesian but has difficulty speaking it.

Table 1. Participants by age group and gender

Age group	Male	Female	
Younger (19–35 yrs)	9	8	17
Older (37–72 yrs)	4	14	18
Total	13	22	

spent outside Great Aceh. (Participant information on all measures can be found in the Appendix.)

A higher level of education is associated with greater contact with Indonesian both because Indonesian is the language of formal education and because residents of Great Aceh often travel outside Great Aceh to study, in particular for university. We thus apply a two-way split for education, comparing those who received tertiary education ($n=26$); and those who did not ($n=9$; of these, two participants attended primary school only, five attended secondary school, and two a vocational school). Of the 26 participants with a tertiary education, 24 attended university outside Great Aceh (22 in the nearest urban center, Banda Aceh, one in the city of Malang and another in Jogjakarta). In contrast, only three of the nine who do not have tertiary education have spent time outside Great Aceh (two older women, Lili and Mucut, and one older man, Parkop).

Occupations of the participants include civil servants and office workers ($n=8$), teachers ($n=10$), farmers ($n=3$), housewives ($n=3$), and various others, including university students, healthcare workers, vendors, drivers, and tailors. Occupation is widely employed as an indicator of socioeconomic class, including in Indonesia (e.g., Kurniasih, 2005). It often correlates with another potential indicator of class, education, and in the sample studied here, for example, most of the civil servants, office workers and teachers have tertiary education (16/18). Nevertheless, two of this group have only secondary education (Ati and Ibaki), and one professional who works for an NGO has only primary school education (Parkop). Similarly, among the three farmers, one has primary, another secondary, and another tertiary education. Most relevant to us here is that these occupations differ in terms of the degree of contact they entail with a wide range of people, and therefore with Indonesian. Those working in schools, government, or other professional organizations, as well as university students, have a high degree of exposure to people of diverse linguistic backgrounds, while those working as farmers, tailors, drivers, vendors, and housewives are much more oriented to the Great Aceh community. To capture this, we make a distinction between what we term “high-” and “low-exposure” occupations, with 24 participants falling into the former and 11 into the latter group.

The third contact measure is time spent outside Great Aceh. Those who have spent time outside include some who have lived outside ($n=13$, ranging from 2 to 26 years), and those who have not lived outside, but who have commuted from Great Aceh for study or work, primarily to the provincial capital Banda Aceh ($n=14$, ranging from 3 to 11 years). We do not consider the number of years spent outside because participants' experiences differ widely. For example, one older woman (Mucut) spent 17 years living outside Great Aceh (including 3 years in Java, and 14 years in other parts of Aceh Province), but she did this as a housewife accompanying her husband, and from the interview it is apparent that she did not interact extensively with Indonesian or Javanese speakers during this time. It is difficult to compare her level of contact with others who may have spent less time outside Great Aceh, but who, when they did so, attended university in Indonesian. Thus, we contrast those who have spent some time outside ($n=27$) with those who have not ($n=8$). This measure correlates with education and occupation – those who have not spent time outside Great Aceh tend to have lower levels of education (six out of the eight do not have a tertiary degree) and to work in low-exposure occupations (five work in low-exposure occupations, as farmers, a tailor and a vendor).

The distribution of these measures across the participants is quite uneven. This is captured in Figure 1, which presents the number of participants for each measure, broken down by age and gender. Note that older women present the highest proportion of participants without tertiary education (5/14, top chart), and there are no older males in low-exposure occupations (middle chart), nor who have spent no time outside (bottom chart). This is partly due to participant numbers; older men, for example, are the least well represented group in the sample, with only four participants. But it is also reflective of the nature of this rural community in an increasingly urbanizing region of Indonesia, in which women previously had limited mobility, including access to education, while men have enjoyed greater mobility for a longer period of time. In the analyses below, as well as considering the impact of these measures individually, we will also apply a composite measure, which allows us to take account of the correlations between these measures and obtain a more generalized picture of their impact.

3. Word-final (t) glottalization as a linguistic variable in Great Aceh

3.1 Word-final (t) glottalization and language contact

Acehnese is a relatively understudied language, and while there are some published descriptions of Acehnese grammar and phonology (e.g., Akbar, Abdullah,

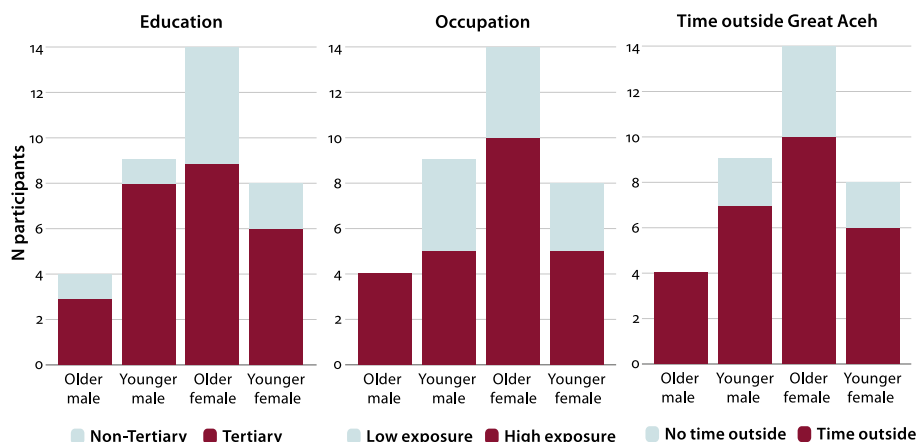


Figure 1. Participant distribution according to mobility measures

Latif, & Ahmaddin, 1985; Asyik, 1987; Durie, 1987; Nugraheni & Ellyawati, 2013), and there has been some discussion of Acehese regional variation (Asyik, 1987, pp. 3–9; Durie, 1987, pp. 3–4; Sulaiman, 1979), to date there has been no empirical study of the nature of that variation.

There is evidence that the variety spoken in Great Aceh is recognized as distinct by people of the region. It is not considered a prestige variety (Durie, 1987, p. 7), and is described by its own speakers as *gasa* ‘rough’, as illustrated in (1), from one of the participants in this study. One linguistic feature that contributes to this perception, and which is the subject of commentary, is the weakening of word-final consonants. This includes both the dropping of final /m/ and glottalization of /t/, both of which are mentioned by the participant in (2). There is also evidence that these features may be disappearing. In (1), Muksin talks of changing the way she speaks to sound more *halus* ‘smooth’, and in (2) Baki notes that he believes that the way Acehese is spoken is becoming more “correct”, citing as examples the loss of final-nasal dropping (lines 5 and 6) and of t-glottalization (7, 8 and 9, where orthographic ‘k’ represents a glottal realization). It is the latter feature that is the focus of this study.

- (1) 1. *hawa meupeugah bit awak nyan*

‘I want to speak like them’

2. *bek ikheun eunteuk awak Aceh Rayeuk gasa that imariet*

‘so that they won’t say that Great Aceh people speak roughly (*gasa*)’

3. *Em, keuh bah bacut jeut lembut jeut halus*

‘Yes, that’s why I change a little bit, to be smooth (*halus*)’

(Muksin, female farmer, born 1982)

- (2) 1. *tapi jinoe hana le*
‘But now, it is no longer like that’
2. *ka ka mulai merujuk pada kebenaran.*
‘These days we already speak of correctness’
3. *ka pah. Bahasa Aceh yang pah,*
‘Already correct. Correct Acehese.’
4. *meunyoe e meunyoe na geupeugah*
‘If um if they say’
5. *bunoe nam kon hana kheun le na*
previously *nam* ‘six’, is no longer uttered as *na* [na]’
6. *hana kheun le na*
‘No longer uttered as *na* [na]’
7. *Peu poh? Poh peuk*
‘What time is it? It is four [peu?]’
8. *Peu poh? Poh peuk*
‘What time is it? it is four [peu?]’
9. *Jadi kon peut. Peuk.*
‘So, it’s not [peut] but [peu?].’

(Baki, male teacher, born 1958)

In the Great Aceh variety, word-final /t/ is variably realized as a dental or glottal stop ([t̚] vs. [ʔ]), as observed by the speaker in (2). In accordance with standard variationist sociolinguistic practice, we represent this variable in parentheses, and refer to it as word-final (t).

In the sociolinguistic interview data examined here, in word-final position, [t̚] and [ʔ] are used roughly equally, with an overall rate of 52% [t̚] (1,081/2,062). This is in contrast to Indonesian and most other Acehnese varieties, in which no such glottalization takes place for /t/. For example, Indonesian *lompat* ‘to jump’ is realized as [lompat̚]; the equivalent in most Acehnese varieties would be realized also with a word-final dental, as [lumpat̚], but in Great Aceh, it is variably realized as [lumpat̚] or [lumpaʔ].

We are able to verify that this difference holds for the participants in this study in the small sample of Indonesian produced during the course of the sociolinguistic interviews. While there is some glottalization of word-final (t), it is at a much lower rate than in their Acehnese, with an overall rate of [t̚] in their Indonesian of 86% (68/79). It is this difference between the two languages that renders word-final (t) an appropriate variable to test for contact-induced change. Furthermore, natural phonological processes are less likely to result in word-final fortition, as would be seen in a change from [ʔ] to [t̚], given the frequency of lenition over fortition in sound change (cf., Bybee & Easterday, 2019). Internal and external processes thus predict distinct paths of change for this variable – a higher rate of

[t̚], or a lower rate of the Great Aceh glottal variant, in younger than older speakers, would be suggestive of contact-induced change, while a lower rate of [t̚] would be suggestive of internally-driven change.³

As a final comment on the choice of this variable, though word-final stops in Acehese all undergo some glottalization (Durie, 1987, pp. 12–15), word-final /k/ is glottalized as the norm in Indonesian as well (Soderberg & Olson, 2008, p. 210), and thus is less informative as to the impact of contact, and word-final /p/ occurs much less frequently than does /t/ (approximately one fifth as often in the spontaneous speech data studied here). Thus, it is glottalization of word-final (t) specifically that is most profitable for a study of variation and change in Great Aceh.

3.2 Extraction and coding of word-final (t)

To prepare the sociolinguistic interview data for analysis, all tokens of word-final (t) were extracted initially from the last 10 minutes of each interview. In cases where fewer than 30 tokens were obtained in those ten minutes, where possible, the starting point of the coding was moved to an earlier point in the recording, from the beginning of a particular topic. For the two reading tasks, all instances of word-final (t) were extracted.

Coding was done auditorily by the second author, by listening to each word in context, and making a binary distinction between [t̚] and [ʔ] for all words with a final 't' in the orthography.⁴ To verify the reliability of this auditory coding, a subset of tokens was checked auditorily by a second native speaker, and for another subset, spectrograms were reviewed. Figure 2 presents a spectrographic representation of [t̚] on the left, where the stop closure is evident, in contrast with the irregular glottal vibrations seen in the glottal realization on the right.

The interview data provides a total of 2,062 tokens for analysis, ranging from 21 to 126 tokens per participant (with a mean of 59 and a median of 56).⁵ The reading tasks provided a further 875 tokens, 661 from the reading passages (19 per participant), and 210 from the word list (6 per participant).

3. Dialect-contact-induced change is also a possibility, because [t̚] / [ʔ] variation appears to be specific to the Great Aceh variety, and increased mobility is likely to bring about greater contact not only with Indonesian, but also with other varieties of Acehese. We focus here on contact with Indonesian because we can be more confident in our assessment of the degree of contact with Indonesian, and we have greater knowledge of its phonology.

4. While recognizing the value of an acoustic analysis and treating glottalization as a continuous variable, we follow here sociolinguistic work on glottalization in English in utilizing auditory coding and applying a binary distinction (cf., Schleef, 2013, p. 221).

5. There were 67 tokens in the interview data for which the realization was unclear, and these have been excluded.

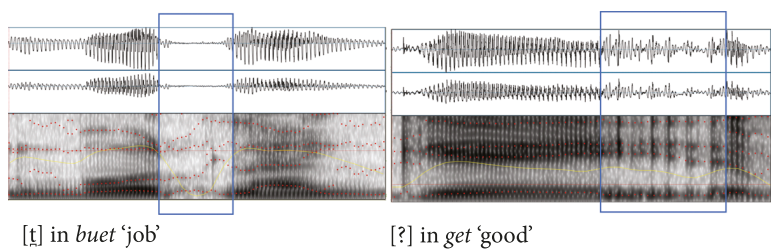


Figure 2. Spectrographic representation of word-final [t] vs. [ʔ] realization

4. Word final (t) in spontaneous speech vs. reading tasks

The distinct data types collected allow us to observe the patterning of word-final (t) across different speech styles – the spontaneous and relatively casual spoken speech collected via the sociolinguistic interview, and the more formal, controlled speech collected via the reading tasks. Figure 3 gives the rate of [t] vs. [ʔ] across the three data types, and shows a marked distinction between them. While [t] and [ʔ] are used relatively evenly in the sociolinguistic interview data, [t] is used nearly categorically in both of the reading tasks – 94% in the reading passage and 97% in the word list. This could be interpreted as an association of glottalization with more casual speech and [t] with greater formality, but it could also be a task-related effect. That is, the [t] realization may be prompted on the one hand by the orthographic ‘t’ in the words being read, and on the other, by the association between the reading task and the school setting, and therefore with Indonesian as the language of formal education.

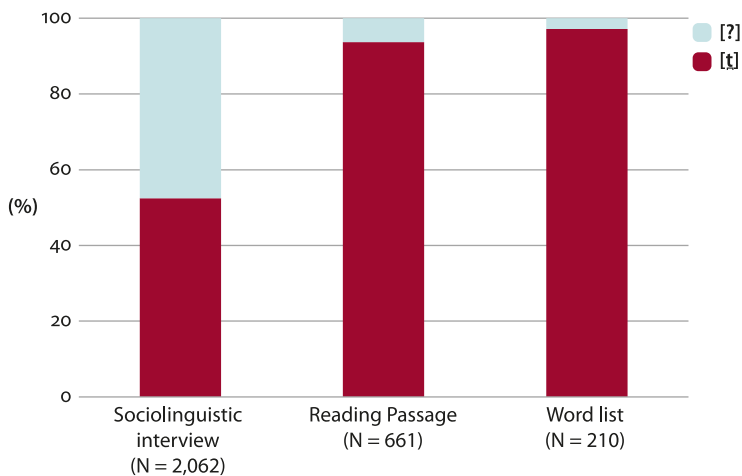


Figure 3. Rates of [t] vs [ʔ] across three data types (n=2,933)

The higher rate of [t̚] in the reading tasks than in the spontaneous speech is consistent with an account whereby contact with Indonesian has led to an increased rate of [t̚]. However, there is no evidence for change in the reading tasks, as the very high rate of [t̚] is upheld across age and gender groups. The lowest rate is found with the young men in both the word list (92%) and reading passage (91%), and the highest with the young women, again in both the word list (100%) and reading passage (99%), possibly evidencing a hypersensitivity to these tasks by young women. This contrasts with the sociolinguistic interview data, in which, as we report below, we observe more marked differences across age and gender, suggesting change over time. The locus of the variation for word-final (t) thus lies in spontaneous speech, and we will therefore set aside the reading task data in the analyses that follow.

5. Word-final (t) in spontaneous speech

To test for possible contact effects in the spontaneous speech data, we consider one internal constraint (that of the following segment), analyzed alongside the set of external constraints described above.

5.1 Phonological conditioning

In accordance with Acehese phonotactics, word-final (t) is always preceded by a vowel, but it is followed by a range of segments that occur word-initially. Figure 4 shows the rate of [t̚] vs [ʔ] in the sociolinguistic interview data according to a four-way breakdown for following segment. As can be seen, the highest rate of [t̚] occurs in pre-pausal (or final) position at 76%, and preceding alveolar consonants (/t/, /d/ and /l/), at 62%, which can be understood as assimilation with the following consonant. This contrasts with the rate preceding non-alveolar consonants, at 40%, and vowels, at 35%.⁶

Comparison of the rate of [t̚] in these four environments across all age and gender groups reveals the same hierarchy for older and younger speakers and for males and females – the rate of [t̚] is highest in final position, followed by preceding alveolar consonants, and it is lowest preceding non-alveolar consonants and vowels for all groups. This suggests that the internal constraints on this variability are stable over time. What of the external constraints?

6. The rate of [t̚] is lowest, and that of a glottal realization highest, preceding glottal [h] (the only word-initial glottal consonant to occur; 20%, 6/30); due to the low number of tokens in this context it has been collapsed in Figure 4 with other pre-consonantal instances.

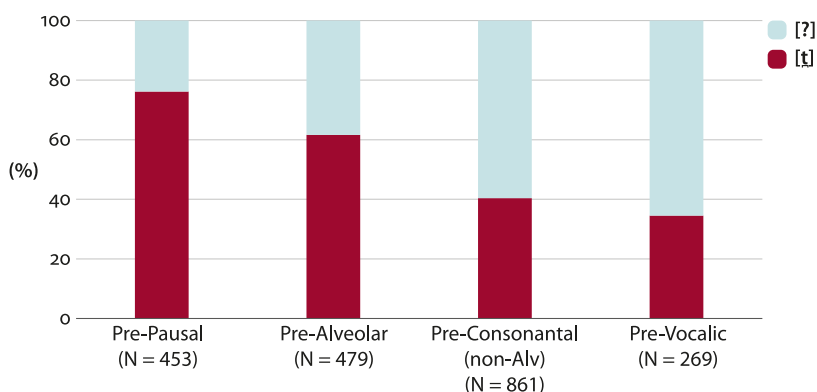


Figure 4. Rates of [t] vs [ʔ] according to following segment (sociolinguistic interview data, $n = 2,062$)

5.2 Social conditioning: Gender and mobility over time

To determine whether there has been change over time and whether that is associated with language contact, we now proceed to examine the social conditioning of word-final (t) realization, considering age and gender alongside the three measures we apply for contact and mobility: education, occupation and time spent outside Great Aceh.

The 35 participants in the study include males and females of differing ages levels of mobility. As we have seen above, however, the sample is unevenly distributed and some categories are highly correlated (Section 2). This renders it difficult to assess the impact of the social constraints via robust statistical tests. A useful approach for examining such data is random forest analysis, which provides a means of identifying the overall importance of each of the predictors even where there is collinearity between them and the data is unbalanced. Random forests are built from multiple conditional inference trees, which work via recursive binary partitioning – assessing the likelihood of each variant in the context of a specified set of predictors, and making binary splits in increasingly smaller subsets of the data, until no further significant splits are identified. Random forests average the results across multiple conditional inference trees to determine the overall importance of each predictor included in the model based on randomly generated subsets of the data (Levshina, 2015, pp. 291–292; Tagliamonte & Baayen, 2012, pp. 159–160).

In this analysis, we include phonological context (that is, following segment), age group, gender, education, occupation and time spent outside Great Aceh, as well as speaker, to take account of possible individual effects. Figure 5 presents the results from a model run with 1,000 trees with three variables sampled at each

split, using the `ctree()` function from the “party” package for R (Hothorn, Hornik, & Zeileis, 2006). The C-index for the model is 0.798, indicating that it discriminates well between the variants.⁷

Phonological context is found to be the most important predictor (the furthest to the right), followed by speaker (typically found to have a strong effect in such analyses, Tagliamonte & Baayen, 2012, p. 162). The only other important predictors, and marginally so, are age group and gender (occurring just to the right of the dotted line). Comparison of rates of use reveals that [t̚] is used more by younger over older speakers (with mean rates of 59% and 47% respectively), and by males over females (with mean rates of 65% and 47% respectively). The greater use of [t̚] by younger speakers is suggestive of change over time, and the greater use by males suggests that they may lead in this change. Both of these findings would be consistent with contact-induced change, given the greater mobility of young people and of males in general. However, this is not supported by the fact that none of the mobility measures are found to contribute statistically significant effects (appearing on the dotted line).

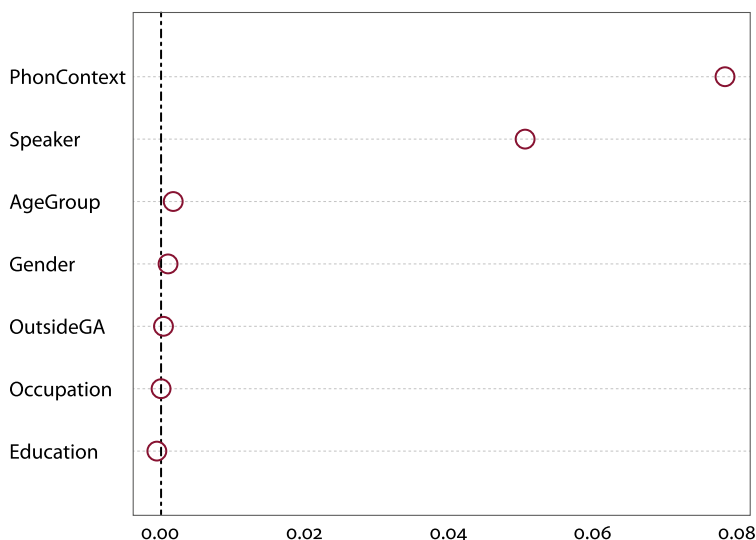


Figure 5. Variable importance ranking from random forest analysis for [t̚] vs. [ʔ] (sociolinguistic interview data, $n=2,062$) (Predictors to the right of the dotted line are significant)

7. A model run with age as a continuous measure produces similar results. We present the results for age group because in the subsequent analyses we are not able to meaningfully consider age as a continuous measure as there is not enough representation when broken down by gender and mobility.

In order to consider further the workings of these mobility measures, we first turn to descriptive statistics to compare rates of [t] in interaction with the two predictors that were selected as significant, age group and gender. Figure 6 presents a set of three box plots, giving the rates of [t] according to education level in the left pane, high- vs. low-exposure occupation in the middle, and time spent outside Great Aceh on the right. Each is broken down by gender (with males on the left in each pane, and females on the right), and age group (older speakers in the darker shade, and younger speakers lighter).

For each of these measures we see a very similar pattern. Males and females of high mobility (be that in terms of being tertiary educated, working in a high-exposure occupation, or having spent time spent outside Great Aceh) tend to produce high rates of [t]. The variability is much greater for the high-mobility women (with rates ranging from 10% to 91%), compared with the high mobility men (with a range of 55% to 82%). The lowest rates for the high-mobility women are for three older women who are highly mobile on just one of the three measures (a tertiary educated farmer who has spent no time outside Great Aceh, Muksin; a retired teacher with secondary education who has spent no time outside Great Aceh, Ati; and a housewife with secondary education, who spent 17 years outside Great Aceh, Mucut). The highest rate, on the other hand, is for a young, tertiary educated nurse who has studied outside Great Aceh (Kamal), highlighting that the divergence in rates is also evident in the social characteristics of these women. Nevertheless, on average, the highest rates of [t] are produced by those with high mobility.

We have little data for males of low mobility. There is only one older male and one younger male without tertiary education. The older male produces a rate of [t] that is comparable to his high-mobility counterparts. This is Parkop who, as has been mentioned above, works at an NGO, has spent time outside Great Aceh, and speaks Indonesian with his wife, as she is not Acehnese. His low level of education thus does not align with his other mobility measures. The young male without tertiary education, on the other hand, scores low on all measures. This is Ijat, who is a vendor at a local market and has not spent time outside Great Aceh. There are no older males who fall into either of the other two low-mobility categories. For the younger males, both those who work in low-exposure occupations and those who have spent no time outside Great Aceh produce [t] at a similar rate to their high-mobility counterparts. Neither mobility nor age group appear to have an effect for males, suggesting that [t] / [ʔ] variation may be stable over time for them.

The same is not so for the low-mobility women, for whom we observe the lowest rates of [t] across the sample. And though for level of education, older and younger speakers produce [t] at relatively similar rates, for occupation and time

spent outside Great Aceh the younger speakers produce notably higher [t̚] rates than the older speakers, suggesting change over time. This would then appear to be the group that is responsible for the significant effect for age identified in the random forest analysis presented in Figure 5. This change, however, does not entirely counter the mobility effect for young women because, though the rates of [t̚] for the young women with low mobility are higher than those for the low-mobility older women, they remain lower than those of high-mobility women, and of men in general. Mobility, then appears to play a role for women only, and age appears to play a role for low-mobility women only.

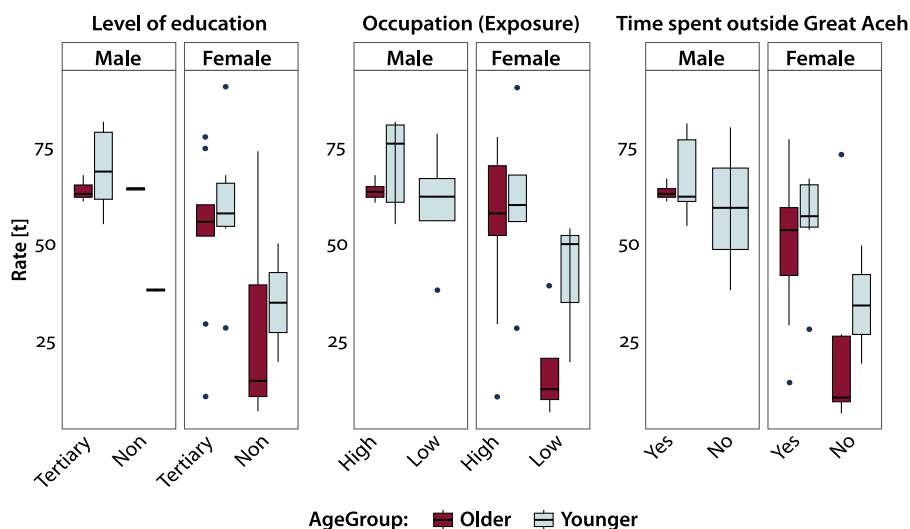


Figure 6. Rate of [t̚] by older vs. younger speakers, males vs. females for three measures of mobility: Education, occupation and time spent outside Great Aceh (sociolinguistic interview data, $n=2,062$)

5.3 Modeling the constraints on variable word-final (t)

The limited application of the mobility measures may account for their failure to reach significance in the random forest analysis (Figure 5). It is also possible that the effect is a cumulative one which is masked by considering each measure individually. We therefore conduct a further test, creating a composite measure for mobility, combining participants who are classified as “high” on all three measures (that is, are tertiary educated, work in a high-exposure occupation and have spent time outside Great Aceh) in the one group, and those who are classified as “low” on at least one measure in another. Of this latter group, four are low in all three measures (one older women, two younger women and one younger man);

five are low in two of the three measures (e.g., two older women who are housewives and do not have tertiary education, but who spent time outside Great Aceh accompanying their husbands); and six are low in only one measure (these are primarily younger people with tertiary education who have spent time outside, but who work as salespeople, drivers or housewives). In this way, we established two distinct groups, of “high” ($n=20$) vs. “low” ($n=15$) mobility, allowing us to run regression analyses to test the impact of this more generalized measure.⁸

We then proceeded to conduct a generalized linear mixed effects model, with realization as the dependent variable ([t̚] vs. [ʔ]), a random intercept for speaker, and the phonological and social predictors as independent variables. The model was run using the `glmer()` function in R (Bates et al., 2019; R Development Core Team, 2019).

For following segment, we saw in Figure 4 that the rate of [t̚] preceding a non-alveolar consonant (40%) is very similar to that preceding a vowel (35%), and these are the only contexts which are not significantly different from each other ($p=0.1$, fisher’s exact test). We therefore collapsed these two, leaving a three-way distinction, contrasting the impact of a following (non-alveolar) consonant or vowel with a following alveolar consonant and with a pause.⁹

We also reconfigured age group and gender. Given the patterning we saw above, and in particular the age difference for low-mobility women (Figure 6), rather than comparing across males and females, and older and younger speakers, we collapsed age group and gender, to create a single predictor of age-gender, with four levels: older women, younger women, older men, and younger men. We then ran this predictor as an interaction with mobility.¹⁰ The speaker distribution for this interaction is given in Table 2.

We selected as reference levels the levels of each predictor which occur least with [t̚], namely following consonant/vowel, low mobility, and older women. Table 3 presents the model summary, and Table 4 the corresponding rates of [t̚] and token numbers for each level in this model.

Considering first the main effects, this model provides statistical support for the patterns seen above: [t̚] is favored in the context of a following pause or a following alveolar consonant more than a following non-alveolar consonant or

8. A random forest analysis run with this composite measure (not shown here) found mobility to have an important effect, more so than age group and gender.

9. Running the model with three, instead of four, levels for this predictor also served to ease model convergence.

10. Models run with age group and gender as independent predictors, and a three-way interaction between age group, gender, and mobility failed to converge, while models with this combined predictor of age-gender run as a two-way interaction with mobility did converge.

Table 2. Participants by age group, gender and mobility

Age group	Male		Female	
	High mobility	Low mobility	High mobility	Low mobility
Younger	4	5	5	3
Older	3	1	8	6
Total	7	6	13	9

Table 3. Generalized linear mixed-effects model predicting [t̚] realization

	Estimate	Std. Error	Z	p
(Intercept: Following Consonant/Vowel, Low mobility, Older-Female)	-2.2464	0.3697	-6.077	< 0.001
Following segment: Alveolar Consonant	1.2561	0.132	9.513	< 0.001
Following segment: Pause	1.833	0.145	12.641	< 0.001
Mobility: High	1.9641	0.4702	4.177	< 0.001
Age-Gender: Younger Female	1.2993	0.6147	2.114	< 0.05
Age-Gender: Older Male	2.0069	0.9349	2.147	< 0.05
Age-Gender: Younger Male	2.1692	0.5295	4.097	< 0.001
Mobility x Age-Gender: High Younger Female	-1.1443	0.785	-1.458	= 0.14
Mobility x Age-Gender: High Older Male	-1.8331	1.1011	-1.665	= 0.10
Mobility x Age-Gender: High Younger Male	-1.6242	0.7504	-2.164	< 0.05

Positive coefficients are associated with a higher rate of [t̚]

Overall rate [t̚] 52% (1,081/2,062)

35 speakers, variance=0.64 (SD=0.80)

Log likelihood: -1152.3; AIC: 2326.6; BIC: 2388.5; C-index=0.799

a vowel; by high over low mobility; and by all age-gender groups over the older women (who are the reference level). Also consistent with what was seen above, there is a significant interaction between mobility and age-gender.

In order to better interpret this interaction, we present a visualization of it in Figure 7. This confirms that the overall patterning for the three mobility measures when considered independently of each other (Figure 6) holds for the composite measure, and when taking into account phonological context and any individual speaker differences. Specifically, the effect for mobility applies to the older women, and to a lesser degree to the younger women (who trend in the same direction), while men are not impacted by mobility. And the effect for age-gender

Table 4. Rates of [t̚] and token numbers for data in Table 3

		Rate		Rate	
		[t̚]	<i>n</i>	[t̚]	<i>n</i>
Following segment	Consonant/Vowel	39%	1,130		
	Alveolar Cons	62%	479		
	Pause	76%	453		
Mobility	Low	44%	886		
	High	59%	1,176		
Age-Gender	Older Female	43%	939		
	Younger Female	53%	490		
	Older Male	64%	187		
	Younger Male	65%	446		
Mobility x Age-Gender	Low Older Female	24%	351	High Older Female	55% 588
	Low Younger Female	49%	218	High Younger Female	57% 272
	Low Older Male	64%	47	High Older Male	64% 140
	Low Younger Male	64%	270	High Younger Male	67% 176

applies to low-mobility women only, who have a significantly lower rate of [t̚] than all other groups, while men and high-mobility women show no age difference.¹¹

Taken together, these analyses indicate that [t̚] / [ʔ] variability is stable for men and for those with high mobility. For men, there is no effect for age nor for mobility; and those with high mobility pattern similarly, independently of age and gender. The group that stands out is that of low-mobility older women, who retain the Great Aceh glottal variant significantly more than any other group. That older women are the only group for whom mobility has a significant effect, with [t̚] being favored more by those with high than by low mobility, suggests that older women are influenced by contact with Indonesian, while no other age-gender groups are. And that low-mobility women are the only group for whom age has a significant effect, with younger women in this group having a higher rate of [t̚] than older women, suggests that low-mobility women are the only group experiencing an increase in [t̚] over time. Thus, we do find evidence of contact with

11. The tendency for younger women of low mobility to produce a lower rate of [t̚] than younger women of high mobility is a weak one. A relevelled model with low mobility younger women as the reference level does not return a significant effect for mobility ($\beta = -0.819$, $p = 0.19$), and for age-gender, it returns a significant difference with older women only ($\beta = -1.230$, $p < 0.05$).

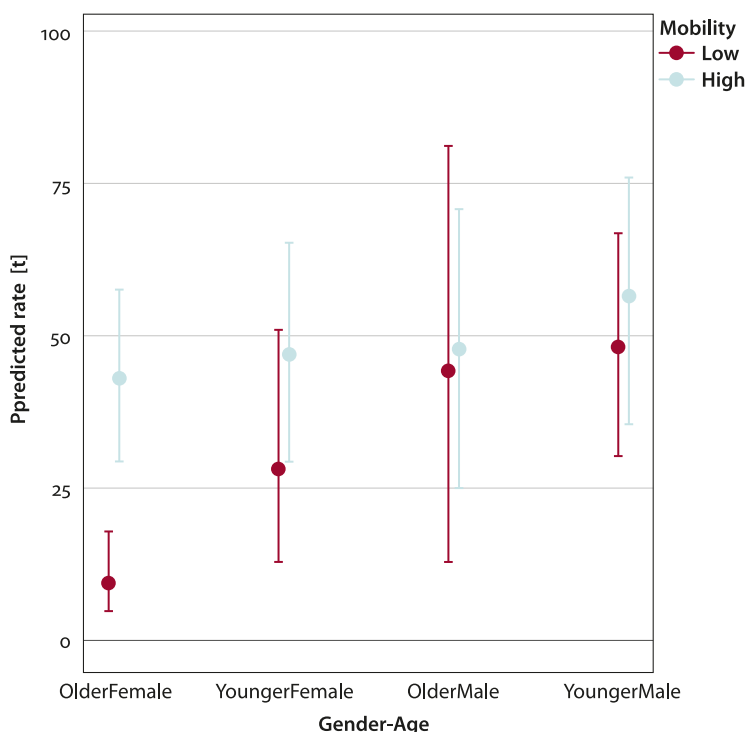


Figure 7. Predicted rate of [t] for mobility and age-gender from model presented in Table 3

Indonesian (seen in the impact of mobility), and change over time (seen in the impact of age), but only for one sector of the community, which is precisely that which has experienced the largest social change over the time period captured here, namely low-mobility women.

6. Gender, mobility and contact in Great Aceh

What do these results tell us about gender, mobility and contact in Great Aceh? It is clear that there is long-standing variation in word final (t) in Great Aceh, evident even in men in their 60s, who show similar linguistic and social conditioning to men in their 20s, indicating that, for this group, the variation is relatively stable. Furthermore, there is no evidence among the males of an effect for contact with Indonesian, as similar rates of [t] are found independent of degree of contact. There are two possible interpretations from this: that [t] / [ʔ] variability has always existed in this variety; or that [t] was introduced by contact, and

increased (before stabilizing) prior to the time period captured in the data here (that is, prior to the 1970s and 1980s when most of the older speakers in this sample were growing up). In the absence of data from an earlier period, we cannot conclusively make a determination between these two, but the data studied here do provide us with some evidence that contact with Indonesian may impact rates of [t̚] realization.

This is seen first in the higher rate of [t̚] in the reading tasks, which we hypothesized may be due to the association of Indonesian with the school setting. And second, it is seen in the patterning of the older women, for whom greater mobility correlates with higher rates of [t̚]. There is also evidence of change over time among low-mobility women, in that young women of low mobility produce higher rates of [t̚] than their older counterparts. This is so even for young women who are low on all three measures. For example, two of the younger women who have no tertiary education, work as a farmer (Irhamni) and a tailor (Shy), and have spent no time outside Great Aceh produce rates of [t̚] that are still higher than four of the six low-mobility older women. We interpret this to be indicative of a general change for young women, whereby the greater mobility for young women as a whole impacts the patterning of all, regardless of the individual's own level of mobility. This is supported by the fact that, though low-mobility young women produce marginally lower rates of [t̚] than high-mobility young women, this difference does not reach significance. Thus, we find a linguistic change that is consistent with social change, in the form of a weakening of gender differences over time, as young women today come to experience a greater level of mobility due both to increased urbanization and changing gender roles in this community.

In language contact studies in Indonesia, it has been proposed that shift towards Indonesian takes place for women ahead of men. For example, there are reports that Javanese women lead in the shift towards Indonesian, as young women in particular take advantage of the “cultural capital of Indonesian” as a door to educational and social opportunities (Smith-Hefner, 2009, p.72; cf. also Kurniasih, 2005). However, large-scale analyses across Indonesia based on census data have found the opposite, in that overall, women tend to lag in the shift to Indonesian (Abtahian et al., 2016, p.157). In reconciling these contrasting findings, Abtahian and colleagues propose that gender differences must be interpreted in relation to “social networks, access to education, and exposure to Indonesian”, which may vary in different areas (2016, p.157). This is precisely the interpretation we have put forward here for the patterning observed in word-final (t). That is, we find differential patterning across sections of society consistent with their distinct social realities – linguistic stability for men, who have long enjoyed high levels of mobility, and for high-mobility women; and change among those most affected by recent social changes, namely low-mobility women, who today expe-

rience greater opportunities for contact with people from outside of Great Aceh than was the case in the past.

The stability we have seen provides no evidence of wholesale change taking place across the community – those who use [t̚] the most appear to have stabilized on a rate of glottalization of around one third. Thus, there is no indication that the Great Aceh glottal variant is being lost. This stability contrasts with that reported by Zen and Starr (This volume), who observe the loss of Javanese phonological contrasts in a context of language shift to Indonesian. But it is consistent with other studies that have reported the maintenance of language-specific variation patterns in the face of long-term bilingualism, including for both the sound system (Stanford, 2008) and the grammar (Torres Cacoullos & Travis, 2018).

Much work remains to be done to advance our understanding of outcomes of sustained language contact in bilingual communities, and in particular of possibilities of stability, or resistance to convergence with an encroaching language or variety. Given its rich multilingual makeup, Indonesia is an ideal testing ground in which to carry out such work.

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References

- Abtahian, Maya R., Cohn, Abigail C., & Pepinsky, Thomas (2016). Modeling social factors in language shift. *International Journal of Sociolinguistics*, 242, 139–170.
<https://doi.org/10.1515/ijsl-2016-0036>
- Akbar, Osra M., Abdullah, Wamad, Latif, Surya N., & Ahmaddin, Syech (1985). *Pemetaan bahasa Aceh, Gayo dan Alas* [Mapping the languages of Aceh, Gayo and Alas]. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa.
- Asyik, Abdul G. (1987). *A contextual grammar of Acehese sentences (complementation)*. Doctoral thesis, Department of Linguistics, University of Michigan.

- Badan Pusat Statistik (2019). Jumlah dan distribusi penduduk [Population numbers and distribution]. Retrieved from <https://www.bps.go.id/publication/2019/07/04/daac1ba18cae1e90706ee58a/statistik-indonesia-2019.html>
- Bates, David, Mächler, Martin, Bolker, Ben, Walker, Steve, Christensen, R. H. B., Singmann, H., ... Fox, J. (2019). lme4: Linear mixed-effects models using 'Eigen' and S4. (Version 1.1–121) [R package].
- Bybee, Joan, & Easterday, Shelece (2019). Consonant strengthening: A crosslinguistic survey and articulatory proposal. *Linguistic Typology*, 23(2), 263–302. <https://doi.org/10.1515/lingty-2019-0015>
- Durie, Mark (1987). *A grammar of Acehnese on the basis of a dialect of North Aceh*. Dordrecht: Foris Publications Holland.
- Flore, Margaret (Ed.). (2010). *Endangered languages of Austronesia*. New York: Oxford University.
- Hothorn, Torsten, Hornik, Kurt, & Zeileis, Achim (2006). Unbiased recursive partitioning: A conditional inference framework. *Journal of Computational and Graphical Statistics*, 15 (3), 651–674. <https://doi.org/10.1198/106186006X133933>
- Kurniasih, Yacinta (2005). Gender, class and language preference: A case study in Yogyakarta. In Keith Allan (Ed.), *Selected papers from the 2005 Conference of the Australian Linguistic Society*. <https://als.asn.au/Conference/Proceedings/ALS2005>
- Labov, William (1972). *Sociolinguistic patterns*. Oxford: Basil Blackwell.
- Labov, William (1984). Field methods of the project on linguistic change and variation. In John Baugh & Joel Sherzer (Eds.), *Language in use: Readings in sociolinguistics* (pp. 28–53). Englewood Cliffs, NJ: Prentice Hall.
- Lausberg, Hedda, & Sloetjes, Han (2009). Coding gestural behavior with the NEUROGES-ELAN system. *Behavior Research Methods, Instruments, and Computers*, 41(3), 841–849. (Max Planck Institute for Psycholinguistics, The Language Archive, Nijmegen, The Netherlands. <http://tla.mpi.nl/tools/tla-tools/elan/>). <https://doi.org/10.3758/BRM.41.3.841>
- Levshina, Natalia (2015). *How to do linguistics with R: Data exploration and statistical analysis*. Amsterdam: John Benjamins. <https://doi.org/10.1075/z.195>
- Nugraheni, Yunita, & Ellyawati, Hetty C. (2013). Phonology analysis of Acehnese. *Lensa: Kajian kebahasaan, kesusastraan, dan budaya* [Lensa: The study of language, literature, and culture], 3(2), 86–97. <https://jurnal.unimus.ac.id/index.php/lensa/article/view/2739/2652>
- R Development Core Team (2019). *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing. <http://www.R-project.org>
- Sankoff, Gillian (2006). Age: Apparent time and real time. In Keith Brown (Ed.), *Encyclopedia of language and linguistics* (2nd ed., Vol. 1, pp. 110–116). Oxford: Elsevier. <https://doi.org/10.1016/B0-08-044854-2/01479-6>
- Schleef, Erik (2013). Glottal replacement of /t/ in two British capitals: Effects of word frequency and morphological compositionality. *Language Variation and Change*, 25(2), 201–223. <https://doi.org/10.1017/S0954394513000094>
- Smith-Hefner, Nancy J. (2009). Language shift, gender, and ideologies of modernity in Central Java, Indonesia. *Journal of Linguistic Anthropology*, 19(1), 57–77. <https://doi.org/10.1111/j.1548-1395.2009.01019.x>
- Soderberg, Craig D., & Olson, Kenneth S. (2008). Indonesian. *Journal of the International Phonetic Association*, 38(2), 209–213. <https://doi.org/10.1017/S0025100308003320>

- Stanford, James N. (2008). A sociotonic analysis of Sui dialect contact. *Language Variation and Change*, 20(3), 409–450. <https://doi.org/10.1017/S0954394508000161>
- Sulaiman, Budiman (1979). *Bahasa Aceh* [The Acehese language]. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa, Departemen Pendidikan dan Kebudayaan.
- Sulaiman, Budiman, Ali, Zaini, & Lani, H. Razali Cut (2008). *Meurunoe Bahasa Aceh Glah 3* [Learning Acehese grade 3]. Banda Aceh: Boebon Jaya.
- Tagliamonte, Sali, & Baayen, Harold (2012). Models, forests, and trees of York English: *Was/were* variation as a case study for statistical practice. *Language Variation and Change*, 24(2), 135–178. <https://doi.org/10.1017/S0954394512000129>
- Torres Cacoullos, Rena, & Travis, Catherine E. (2018). *Bilingualism in the community: Code-switching and grammars in contact*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108235259>
- Zen, Ewynurul L., & Starr, Rebecca L. (This volume). Variation and contact-induced change in Javanese phonology among multilingual children in Indonesia. *Asia-Pacific Language Variation*.

Appendix. Participant demographic information

Pseudonym	Gender	Age	Age group	Occupation	Occupation – exposure	Formal instruction	Years study/work outside (commuting)	Years living outside	Time outside	Composite mobility
Abaki	M	29	Younger	office worker	High	tertiary	8	0	Yes	High
Aisyah	F	22	Younger	univ. student	High	tertiary	9	0	Yes	High
Akni	M	28	Younger	salesman	Low	tertiary	4	0	Yes	Low
Asa	F	22	Younger	univ. student	High	tertiary	10	0	Yes	High
Ati	F	61	Older	teacher (retired)	High	secondary	0	0	No	Low
Baki	M	61	Older	teacher (retired)	High	tertiary	5	0	Yes	High
Bpajar	M	31	Younger	office worker (univ.)	High	tertiary	0	0	No	Low
Bucut	F	51	Older	teacher	High	tertiary	9	5	Yes	High
Buk Joh	F	59	Older	teacher	High	tertiary	4	32	Yes	High
Buk Lan	F	37	Older	teacher	High	tertiary	10	0	Yes	High
Buk Nam	F	50	Older	teacher	High	tertiary	4	6	Yes	High
Buk Pan	F	47	Older	teacher	High	tertiary	11	4	Yes	High
Dekmu	F	50	Older	civil servant	High	tertiary	3	4	Yes	High
Gam	M	26	Younger	office worker	High	tertiary	4	3	Yes	High
Ibaki	F	54	Older	civil servant	High	secondary	0	0	No	Low
Ijat	M	19	Younger	vendor	Low	secondary	0	0	No	Low
Irhamni	F	35	Younger	farmer	Low	secondary	0	0	No	Low
Jack	F	27	Younger	pharmacist	High	tertiary	3	0	Yes	High
Kamal	F	29	Younger	nurse	High	tertiary	3	0	Yes	High
Kapajar	M	37	Older	office worker (univ.)	High	tertiary	9	11	Yes	High
Lili	F	42	Older	housewife	Low	vocational	3	0	Yes	Low
Makli	F	54	Older	teacher	High	tertiary	10	0	Yes	High
Manle	M	27	Younger	driver	Low	tertiary	4	0	Yes	Low
Merlen	M	27	Younger	Lawyer's assistant (unemployed)	High	tertiary	0	6	Yes	High
Miwa	F	72	Older	farmer	Low	elementary	0	0	No	Low
Mucut	F	51	Older	housewife	Low	secondary	3	17	Yes	Low
Mujir	M	27	Younger	civil servant	High	tertiary	9	2	Yes	High
Muksin	F	37	Older	farmer	Low	tertiary	0	0	No	Low
Nabaki	M	25	Younger	unemployed	Low	tertiary	5	0	Yes	Low
Parkop	M	46	Older	professional (NGO)	High	elementary	0	5	Yes	Low
Shy	F	20	Younger	tailor	Low	vocational	0	0	No	Low
Umma	F	52	Older	teacher	High	tertiary	4	26	Yes	High
Uya	F	27	Younger	housewife	Low	tertiary	6	0	Yes	Low
Yahcut	M	62	Older	civil servant (retired)	High	tertiary	0	17	Yes	High
Zali	F	27	Younger	teacher	High	tertiary	4	0	Yes	High

Abstract (Indonesian)

Penelitian ini bertujuan untuk meneliti variasi pada ragam bahasa Aceh yang digunakan di Kabupaten Aceh Besar di Provinsi Aceh, untuk lebih memahami efek jangka panjang dari kontak dengan Bahasa Indonesia dan peningkatan urbanisasi. Bahasa Aceh dialek Aceh Besar ditandai oleh variasi pengucapan (t) di akhir kata sebagai konsonan hambat dental atau glotal. Analisis lebih dari 2.000 token dari variasi pengucapan (t) di akhir kata, yang diambil dari korpus wicara oleh 35 penutur, menunjukkan bahwa pengucapan dental [t̪] relatif stabil digunakan oleh laki-laki, dan oleh perempuan dengan tingkat mobilitas tinggi. Hal ini diukur dari segi pendidikan, jenis pekerjaan, dan waktu yang dihabiskan di luar Aceh Besar. Wanita dengan mobilitas rendah menunjukkan tingkat pengucapan [t̪] paling rendah, dan dalam kelompok ini juga ditemukan tingkat pengucapan [t̪] yang tinggi oleh kelompok yang lebih muda, yang mana hal ini menunjukkan adanya perubahan bahasa dari waktu ke waktu. Oleh sebab itu, dapat disimpulkan bahwa penelitian ini menemukan stabilitas pada kelompok yang sejak awal telah memiliki tingkat mobilitas tinggi dan perubahan pada mereka yang paling terpengaruh oleh perubahan sosial saat ini, yaitu perempuan dengan mobilitas rendah.

Kata kunci: variasi dan perubahan bahasa, kontak bahasa, mobilitas, sosiofonetik, glotalisasi, Bahasa Aceh, Bahasa Indonesia

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