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Impact of Level of Education on the Realization of /r/ and /l/ among Asante English Speakers in Ghana

Ben Kudus Yussif
Department of English, University of Cape Coast, Ghana
https://orcid.org/0000-0002-9120-9197
benkudus@gmail.com

Ibrahim Imoro
Department of Art Education, University of Cape Coast, Ghana
ibrahim.imoro@stu.ucc.edu

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Abstract

Socio-phonetically, the study seeks to investigate the realization of RP phonemes /r/ and /l/ among Asante English speakers in Ghana focusing on the level of education of participants. Using stratified proportion of 1:1:1 for a total of 30 participants, each of the educational groups (Basic, Secondary and Tertiary) consisted of 10 participants who lived and studied in Kumasi, Ghana. The data was analysed using acoustic and auditory tool (PRAAT 6104) and followed by Analysis of Variance (ANOVA) using SPSS version 20. The study revealed that the phoneme /r/ can be realized as [r], [l] and linking [r] while the phoneme /l/ is realized as clear [l], dark [ɫ] and linking [l]. The findings indicated that participants level of education significantly impact their choice of specific variants of /r/ and /l/. The study also revealed that the nonstandard realization of the phoneme /r/ as [l] is dominant among basic school children but significantly reduces as they progress from basic through tertiary education.

1. INTRODUCTION

Though the target variety of the English spoken in Ghana is the RP standard, the English spoken by most people is far from being accepted as standard. According to Kachru (1992), English in non-native countries evolves through the process of acculturation where new norms are developed. Sey (1973) argued that native language (L1) interference is inevitable in the acquisition and use of English in Ghana. It is a long-held argument among scholars of linguistics regarding the impact of L1 on the success in acquiring the sound system of second language (L2). There are two contrasting models that explain the relationship between L1 and L2 acquisition. The first model is the Perceptual Assimilation Model (PAM) which is based on the argument that L2 phonemes are perceived and consequently produced based on their articulatory resemblance to the learner's closest L1 phonemes (Best, 1995). This argument presupposes that the more similar the sound system of the two languages involved, the much easier learning of L2 becomes. Likewise, difficulty in acquiring L2 sounds is largely attributed to the difference between L1 and L2 (Best, 1995; Best et al., 2001). This assertion corroborates with the view held by Contrastive Analysts including Lado (1957) who posited that L2 learning difficulty is "chiefly" due to existing differences between the L1 and L2.

On the contrary, proponents of the Speech Learning Model (SLM) argue that the degree of dissimilarity between L1 and L2 influences learners' accomplishment in acquiring L2 phonetic

segments. This argument is based on the premise that human beings have the innate ability to create new sound inventories of any language sound system, though more efficient at a certain stage in life. The proponents opined that when a person is confronted with a phoneme in an L2 sound inventory that is completely dissimilar to any phoneme in the L1 inventory, the new sound will be discretely incorporated into the already learnt sound inventories. This yields more accuracy in the end than the perceived similar phoneme in both L1 and L2 which usually undergoes assimilation and may result in reduced accuracy (Flege and Eefting, 1988).

It appears that these two contrasting arguments are not utterly accurate. Both views fail to thoroughly account for the potential influence of the participant's complete background including such salient variables as age, gender, occupation, level of education, ethnicity, geographical location, etc. These variables, according to Labov (1963), are "prestige awareness" that largely account for the linguistic behavior of a particular group. In a socio-phonetic study of two RP phonemes /θ/ and /ð/ in a homogenous Akan speaking community in Ghana, Awoonor-Aziaku (2017a) demonstrated that people's linguistic behavior is significantly influenced by their social strata. She suggested that though few participants substituted the phonemes with alveolar stops and voiceless labiodental fricative at variant to the RP phonemes /θ/ and /ð/, quite a number of them also produced the target RP phonemes /θ/ and /ð/ accurately. These seemingly heterogeneous findings emanating from such a relatively homogenous Akan speaking communities was accounted for by participants' socio-educational backgrounds. That is, when the linguistic behaviour of individuals of homogeneous linguistic background is being investigated, their social grouping should be considered. Over the years, a lot of variationist studies have been conducted along the line of social groupings (Awoonor-Aziaku, 2017a; Milroy, 2002). Naji (2019) investigated English stops among native Yemeni Arabi speakers of English and found overlaps in the production of the homorganic pairs /p, b/, /t, d/ and /k, g/.

Phonetician have shown that, even though the phonemes /r/ and /l/ are distinctive phonemes, they are largely very similar. As a result of the overt similarities, available literature show that they are usually confusing in their realization. This is not only limited to non-native speakers but also native speakers, in awkward combination such as "corollary" and "irrelevantly" (Clark et al, 1990; Quartey, 2009). Logan et al (1991) Native speakers of Japanese learning English generally have difficulty differentiating the phonemes /r/ and /l/, even after years of experience with English. Sheldon and Strange (2007) argued that the difficulty in the production and perception /r/ and /l/ vary with its position in the word indicating that prevocalic /r/ and /l/ in consonant clusters pose the greatest difficulty among native Japanese adults learning English in the United States. However, Aoyama et al. (2004) noted a significant improvement in the

realization of /r/ than /l/ among the native Japanese children. Within the Ghanaian context, Quartey (2009) confirms the ongoing perception about the Asantes that suggest that typical Asantes have difficulty in producing the two RP phonemes /r/ and /l/ distinctively and phonetically. This present study is consequently a socio-linguistic study of the realization of the RP phonemes /r/ and /l/ among Asante speakers of English in Ghana. Specifically, the research investigates the influence of participant's level of education in the realization of these RP phonemes /r/ and /l/.

2. LITERATURE REVIEW

2.1 Socio-Linguistic Studies

It is a general view among sociolinguistics that difference in social variables is an inevitable element in linguistic variation, and that individual's linguistic behaviour is influenced by one or more of such social variables as education, occupation, age, gender, ethnic etc. (Labov, 1963; Awoonor-Aziaku, 2017b). The development of a language change cannot be studied in isolation from the social life of the community in which it occurs (Labov, 1963). There are social forces within these communities that constantly work against language to trigger change or variation.

Milroy (2002) examined the influence of social network on language change and variation. He emphasized that even though a society may have a homogeneous language, the existence of various social networks such as education, class, occupation, gender etc. within the society leave certain impacts on the linguistic forms in the society. Both the positive and negative impacts of the social networks, to some extent, prompt a linguistic change within the same linguistically homogeneous society. This implies that, even among native speakers of English, there is some level of variation from the RP as a result of their social networks. Montgomery (2006) as cited in Okyere (2013) corroborated this assertion that, in a linguistically homogeneous New York society, the initial consonants of words such as "thirsty", "thing" or "thick" are pronounced in at least three different ways: /θ/, /t/ or /tθ/.

Awoonor-Aziaku (2017b) tested the feasibility of the variationist assertion that females are generally more associated with standard speech than their male counterpart within a multilingual Ghanaian society where English is learnt as an L2. She examined the male and female realizations of two RP phonemes /θ/ and /ð/. The results pointed out that both gender groups realized the RP phonemes as variants, standard [θ, ð] and nonstandard [th, t, f, d]. She concluded that although both male and females had different scores for each variant, the differences were not statistically significant, indicating that both genders are likely to use the variants similarly. It is obviously part of the reasons why this gender variation phenomenon is

often viewed more as sociocultural construct than biological (Romaine, 1998 as cited in Awoonor-Aziaku, 2017b).

2.2 Phonetic Studies on /R/ And /L/

Phoneticians acknowledge that, even though the phonemes /r/ and /l/ are distinctive phonemes in English phonology, they have so much in common than in difference. They are both voiced alveolar liquids that are able to undergo vocalization and linking processes. Comparing them by their distinctive features as prescribed by Chomsky and Halle (1968), they are both positive to (vocalic, consonantal, voice, coronal and continuant) and negative to (high, back, low, nasal and strident). Out of the eleven distinctive features, the only feature that differentiate the two is anterior, which is positive to /l/ but negative to /r/. As a result of these overwhelming similarities, the pronunciations of the two phonemes /r/ and /l/ are said to be often confusing to speakers of such languages as Chinese, Korean, Swahili, and some West African languages (Swan & Smith, 2001). In English, /r/ and /l/ are predisposed to cause confusion, even native speakers may stumble over words containing /r/ and /l/ in awkward combination such as “meteorological”, “corollary”, “irrelevantly” among others (Clark, et al. 1990). In her paper on Ghanaian English, Quartey (2009) argued that Asante English speakers have problem in realizing the phonemes /r/ and /l/ distinctively these phonemes are in free variation in Asante Twi.

In terms of comparing the difficulty in the pronunciation of the phonemes /r/ and /l/, researchers have demonstrated that it is more challenging among speakers to realize the sound /r/ than the sound /l/. For instance, Chakma (2013) whose study focused on the difficulty in pronouncing certain English consonant sounds among Matthayom 1 students in Thailand revealed that speakers have difficulty realizing /r/ than /l/. While over 80% of the respondents could realize /l/ accurately at both word initial and final positions, the respondents had more challenges with the correct pronunciation of /r/ sound at initial position (43.7 of incorrect pronunciation), but had fewer problems with /r/ sound at final position (18.2 of incorrect pronunciation). The study however did not indicate what the incorrect (variant) realizations of the two phonemes /l/ and /r/ represent.

3. METHODS

3.1 Participants and Instrument

The research design adopted for this study is descriptive approach, a pre-cursor to quantitative research design, which describes natural phenomena and provides information on the characteristics of the phenomenon (Mugenda & Mugenda, 1999). Since the study targeted native speakers of Asante Twi, the data collection site for the study is Kumasi, a predominant Asante Twi speaking community located in Ashanti region of Ghana. A total of 30 participants

between the ages of 15 to 30 years were involved in the study. The proportion 1:1:1 was used to stratify them into three groups based on their level of education; Basic/Middle, Secondary, and Tertiary. Using the snowball sampling technique, participants of each stratum (10) were randomly selected starting with the first person who offered to participate.

The research instrument was in two parts: sections A and B. Section A elicited information on participants' biodata such as age, sex, and ethnicity, level of education, language spoken at home and place of residence. Level of education was the most important information of interest in this study. In section B, participants were engaged in reading a well saturated wordlist containing the phonemes /r/ and /l/ in various linguistic environment (word initial and final positions as well as phrasal boundary). There was a total of 89 linguistic elements of which 30 were distractor items and 59 actual words containing the phonemes /r/ and /l/. In each linguistic environment, the phonemes /r/ and /l/ are featured in 10 items each. The respondents were guided to read the items with brief pauses between them, as marked by commas, in order to lessen the phonological effects of preceding and subsequent sounds. The recordings were done in quiet and secluded places using Digital Voice Recorder. Each recording was saved in code that uniquely represent the participant's background information.

3.2 Data processing and analysis

All the recordings were converted to mp3 audio format to make the data compatible to acoustic analysis. The analysis of the data was in two folds; starting with the acoustic and auditory analysis with the help of PRAAT 6104, and followed by analysis of variance (ANOVA) using SPSS version 20. The acoustic and auditory methods were used to identify the variables, while the ANOVA was used to determine statistical differences among the three speaker groups within the same speech community. After the acoustic coding, three variables were identified and categorized to reflect the nature of the variables spoken. It became clear at this point that the issue was not strictly binary (involving presence versus absence) in nature nor strictly alternation (of the two phonemes /r/ and /l/), but a combination of the two approaches.

3.3 Ethical considerations

We acknowledged the need for ethical considerations in this research since it involves the direct participation and intrusion into the private lives of people. We sought the consent of potential participants and under no circumstance was the data collected with any coercion. To ensure the confidentiality and integrity of participants, only participants' first names were used in the study.

4. RESULTS AND DISCUSSION

This section discusses the results and findings of the paper. The chief interest of this work was to find out whether there were variations among Asante English speakers, and whether their level of education influence their choice of a variant.

4.1 Variant Realization of the Phonemes /r/ and /l/

The first question that this research sought to answer was to find out whether there were variant realizations of the RP phonemes /r/ and/l/ among the Asante speakers of English in Ghana. To achieve this, participants were asked to read the word lists, which consist of 66.7% of targeted linguistic items and 33.3% of distractor items. The phonemes /r/ and /l/ were evenly distributed in the targeted linguistic items, at varying linguistic environments (word initial position, final position and phrasal boundary position). Using PRAAT, the acoustic and auditory analysis were done for both phonemes. With respect to the phoneme /r/, figures 1, 2, and 3 are spectrogram representing its variant realizations.

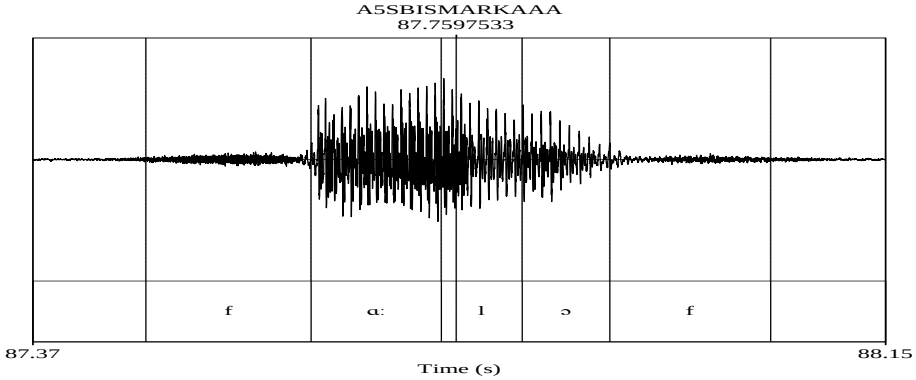

***Figure 1*: /r/ realized as [l] in 'far of' [fa: rɔf] as [fa:lɔf]**

Source: Field Data 2019

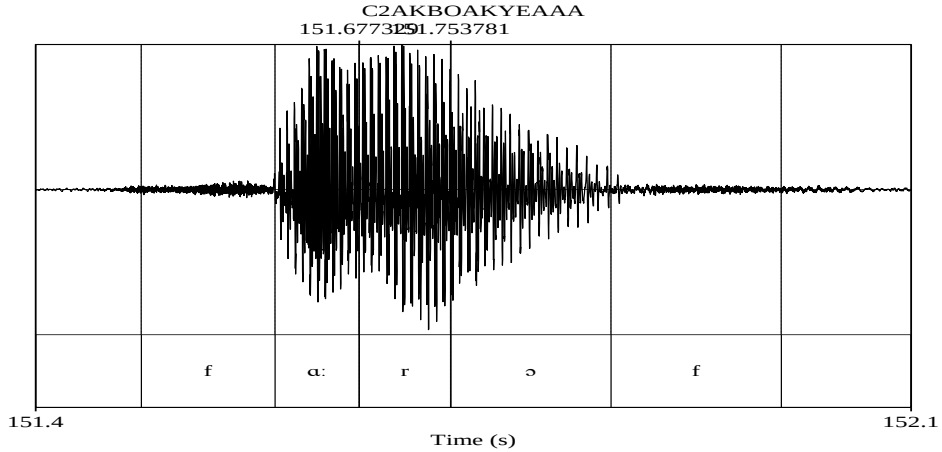

***Figure 2*: /r/ realized as linking [r] in 'far of' [fa:rɔf] as [fa:rɔf]**

Source: Field Data 2019

Figures 1 and 2 are spectrogram of participants A5 and C2 representing their respective pronunciation of the linguistic element "far of", which has the letter "r" at phrasal boundary

(one of the three linguistic environments). In figure 1, participant A5 pronounced 'far of' as [fa:lɔf], thereby realizing the variant [l] for the phoneme /r/. This is however not the same as realized by participant C2, where the same item was pronounced as [fa:rɔf] realizing the non-rhotic linking [r] variant of the phoneme /r/. The non-rhotic ascents as in RP only realize 'r' in word final position where the next word begins with a vowel as in 'of' in 'far of'.

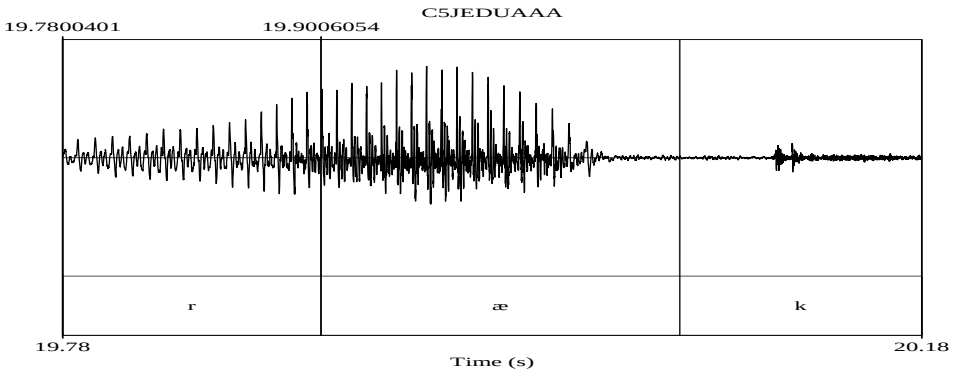

***Figure 3*: /r/ realized as [r] in 'rack' [ræk] as [ræk]**

Source: Field Data 2019

Figure 3 is a spectrographic representation of participant C5's pronunciation of the linguistic item 'rack, where it is pronounced as [ræk]. The variant of the phoneme /r/ in this linguistic environment (word initial position) as realized by the participant is [r]. Consequently, the variant realizations of the phoneme /r/ were categorized into three and coded as [r], [l] and linking [r], as these were the recurrent realizations among the participants.

Similarly, phoneme /l/ in the various linguistic environment was pronounced by the participants resulting in varying realizations. Figures 4, 5 and 6 are spectrograms representing the noticeable variants.

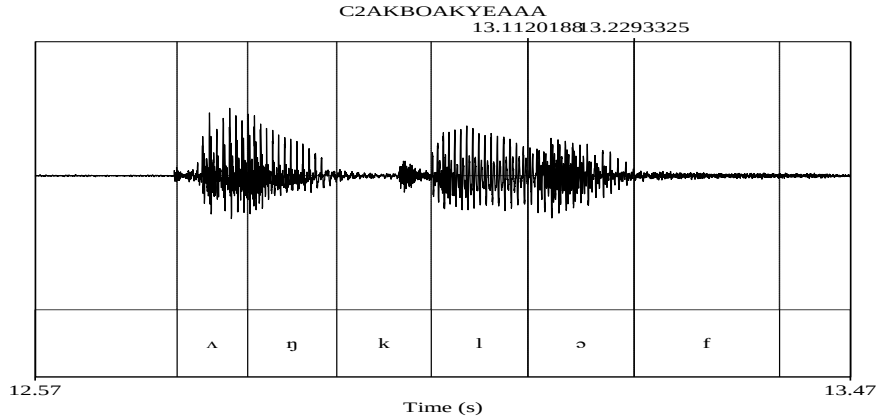

***Figure 4*: /l/ realized as linking [l] in 'uncle of' [ʌŋklɔf] as [ʌŋklɔf]**

Source: Field Data 2019

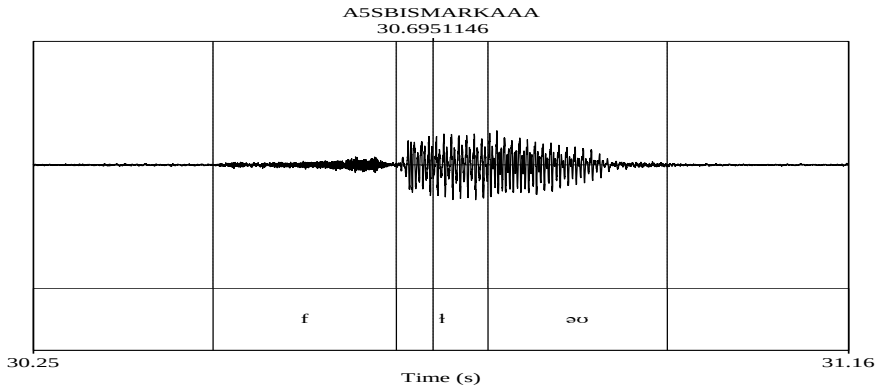

***Figure 5*: /l/ realized as dark [ɬ] in 'flow' as [fɬəʊ]**

Source: Field Data 2019

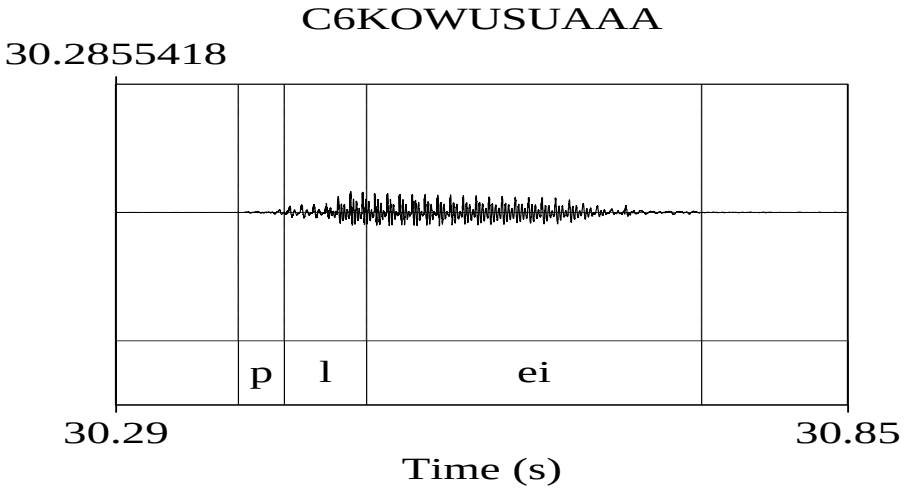

***Figure 6*: /l/ realized as clear [l] in 'play' as [p**lei**]**

Source: Field Data 2019

From figures 4, 5 and 6, it is evident that the participants involved realized variant forms of /l/. Participant C2 in figure 4 for instance, in pronouncing the linguistic item 'uncle of' realized the phoneme /l/ as a linking [l] as transcribed [ʌŋkləf]. Equally, as in figure 5, the same phoneme /l/ was realized as dark [ɬ] in the word 'flow' [fɬəʊ] by participant A5. The word 'play' was however pronounced as [plei] by participant C6 in figure 6, realizing a clear [l] variant of the phoneme /l/. In all the three cases, it is observed that, contrary to the general assertion that a voiced sound becomes partially devoiced when preceded by a voiceless sound, participants realized other variants other than the partially devoiced l variant. This seems to suggest that individual differences play a superior role in sound realization than the fixed rules of linguistic environment predetermination.

In all, the phoneme /r/ was realized as [r], [l] linking [r], and the phoneme /l/ was realized as clear [l], dark [ɬ] and linking [l]. These variants were scored according to the number of times each participant produced them in the various linguistic environments, there by converting the

data into quantitative one. Then after, the quantified data was loaded on to SPSS version 20 for the necessary statistical analysis.

4.2 Educational Level as an Influencing Factor on Variation

This section was to address the question whether one's level of education influences their choice of a particular variant of the two RP phonemes /r/ and /l/. Three levels of education were used in this study (Basic, Secondary, and Tertiary). In all, seven variables were created; one independent (level of education) and six dependent variables (six variant realizations). To answer this question, a statistical analysis was done with the aim of probing two things. First was to find out if there were any statistical differences among the three socio-educational groups, and second was to find out whether the differences among the groups were statistically significant.

For the first part, the statistical differences among the three socio-educational groups were obtained by comparing the means of the variant realizations of the phonemes /r/ and /l/. These were plotted in a graph form as represented in figures 7 and 8.

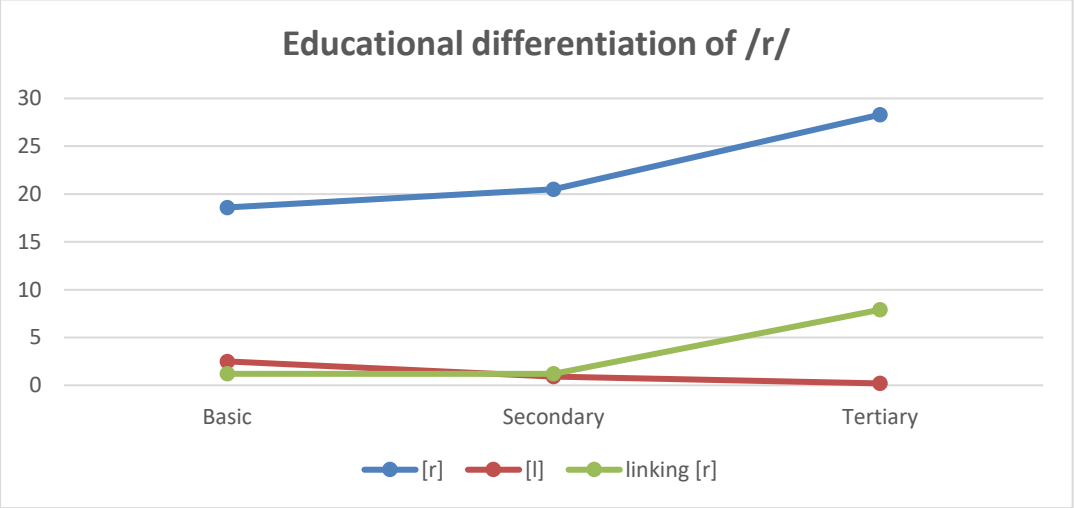

***Figure 7*: Educational differentiation of /r/**

Source: Field Data 2019

Figure 7 shows a social stratification of Asante English speakers according to their level education, as they realize the RP voiced alveolar liquid /r/. While the horizontal axis shows the level of education of the speakers, the vertical axis represents the mean scores of each of the variables used by each of the three educational groups. The lines, as drawn on the graph, show the three variant realizations of the phoneme /r/ ([r], [l], and linking [r]) as captured in the legend. It is obvious from the graph that there is a separation of the speakers according to their levels of education. With the variant [r] for instance, a steady rise in the mean is observed as the level of education of the speakers increases from Basic through Secondary to Tertiary.

Similar rise in the mean value (even though moderate) is seen with respect to the linking [r]. There is, however, a decrease in the mean value of the non-standard variant [l] as the level of education of the speakers increases from Basic through to Tertiary.

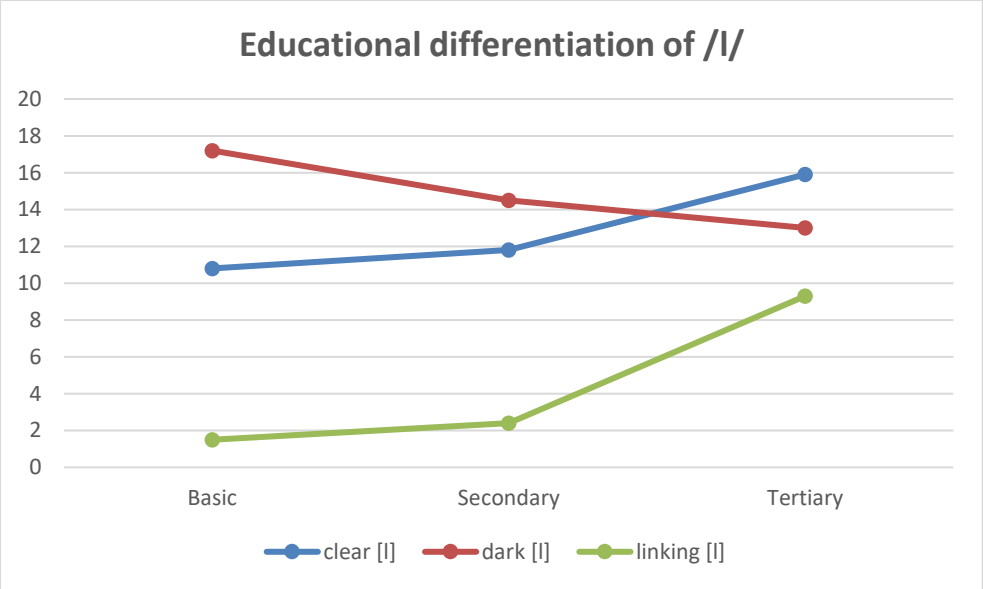

***Figure 8*: Educational differentiation of /l/**

Source: Field Data 2019

Figure 8 shows that Asante English speakers are socially stratified according to their level of education in their realization the RP phoneme /l/. The variants clear [l] and linking [l] have their respective mean values increase along the levels of education; from Basic through Tertiary. Contrarily, the dark [ɬ] rather witnessed a mild decrease in mean values as the level of education increased. On the bases of these observations, it could be argued that Asantes, who have Basic education as their highest level of education, are more likely to realize the phoneme /l/ as dark [ɬ] regardless of the linguistic environment. Again, even though that tendency marginally reduces as Asante English speakers' level of education increases, its retention is largely sustained even at the Tertiary level.

Comparing the variants in the production of the of the two phonemes /r/ and /l/, it appears, as can be seen in figures 7 and 8, that Asante English speakers across all levels of education may not realize a non-standard variant of /l/ (not even replacing it with [r]). Contrastingly, the prevalence of the non-standard variant [l] for the phoneme /r/ across the levels of education – no matter how negligible it may be – suggest largely that Asantes find it more difficult to pronounce the phoneme /r/ as compared to the difficulty in realizing the standard variant of /l/. To the extent that there is some difficulty in the pronunciation of the phoneme /r/, and that there

is the tendency to replace it with [l], these results corroborate the work of earlier researchers (Swan & Smith, 2001; Quartey, 2009; Chakma, 2013).

The second leg on the issue of statistical difference was to find out whether the differences among the groups were statistically significant. This was done by correlating the variants of the two phonemes /r/ and /l/ with the socio-educational backgrounds of the participants using ANOVA. This was followed by a post-hoc test to find out the exact locations of difference. The results of the test are presented in Tables 1 and 2.

Table 1: Multiple Comparisons of variants of the phoneme /r/

Dependent Variable	(I) Educational level	(J) Educational level	Mean Difference (I-J)	Std. Error	Sig.
[r]	Basic	Secondary	-1.900	1.158	.337
		Tertiary	-9.700*	1.158	.000
	Secondary	Basic	1.900	1.158	.337
		Tertiary	-7.800*	1.158	.000
	Tertiary	Basic	9.700*	1.158	.000
		Secondary	7.800*	1.158	.000
[l]	Basic	Secondary	1.600*	.627	.050
		Tertiary	2.300*	.627	.003
	Secondary	Basic	-1.600*	.627	.050
		Tertiary	.700	.627	.821
	Tertiary	Basic	-2.300*	.627	.003
		Secondary	-.700	.627	.821
Linking [r]	Basic	Secondary	.000	.689	1.000
		Tertiary	-6.700*	.689	.000
	Secondary	Basic	.000	.689	1.000
		Tertiary	-6.700*	.689	.000
	Tertiary	Basic	6.700*	.689	.000
		Secondary	6.700*	.689	.000

*. The mean difference is significant at the 0.05 level.

Source: Field Data 2019

It is evident in Table 1 that, even though there are differences among the education groups, not all of such differences are statistically significant. For example, the variants [r] and linking [r] recorded significant statistical difference between Tertiary education speakers on one hand,

and the Basic and Secondary on the other hand with the Sig. value of .000 and .000 respectively. There is however no statistically significant difference between the Basic and Secondary levels as the Sig. values of [r] and linking [r] are way above .05 (.337 and 1.000 respectively). When it comes to the non-standard variant [l], the results suggest a significant statistical difference (.05 and .003) between Basic on one side and Secondary and Tertiary respectively, although between the Secondary and Tertiary no significant statistical difference was found (Sig. = .821).

Table 2: Multiple Comparisons of variants of the phoneme /l/

Dependent Variable	(I) Educational level	(J) Educational level	Mean Difference (I-J)	Std. Error	Sig.
Clear [l]	Basic	Secondary	-1.000	.761	.599
		Tertiary	-5.100*	.761	.000
	Secondary	Basic	1.000	.761	.599
		Tertiary	-4.100*	.761	.000
	Tertiary	Basic	5.100*	.761	.000
		Secondary	4.100*	.761	.000
Dark [ɬ]	Basic	Secondary	2.700*	.609	.000
		Tertiary	4.200*	.609	.000
	Secondary	Basic	-2.700*	.609	.000
		Tertiary	1.500	.609	.061
	Tertiary	Basic	-4.200*	.609	.000
		Secondary	-1.500	.609	.061
Linking [l]	Basic	Secondary	-.900	.803	.816
		Tertiary	-7.800*	.803	.000
	Secondary	Basic	.900	.803	.816
		Tertiary	-6.900*	.803	.000
	Tertiary	Basic	7.800*	.803	.000
		Secondary	6.900*	.803	.000

*. The mean difference is significant at the 0.05 level.

Source: Field Data 2019

From Table 2, it is again exposed that, even though there are differences among the education groups, not all of such differences are statistically significant. Taking the two variants clear [l]

and linking [l] as examples, it would be noticed that there is a significant statistical difference between Tertiary education speakers on one side, and Basic and Secondary education speakers on the other side (sig. = .000 and sig. = .000 respectively). This notwithstanding is not the case when Basic is compared with Secondary, as the difference is not statistically significant (Sig. = .599 and .816 respectively). With regard to the dark [ɬ] however, except between Secondary and Tertiary where there was no significant statistical difference (Sig. = .061), there was a very significant statistical difference between Secondary and Tertiary on one hand and the Basic (Sig. = .000 and .000 respectively).

This finding appears to support Awoonor-Aziaku (2017)'s findings that the socio-educational backgrounds of a particular speakers have significant influence on their realization of RP phonemes. Again, the fact that there was a recorded consistent difference between Asante English speakers with Tertiary educational background and their pre-tertiary counterparts (Basic and Secondary) presupposes, arguably, that the tertiary participants are conscious of the prestige associated with tertiary education. As a result, they make conscious linguistic effort to maintain that prestige associated with their social stratum. This supports Labov (1963)'s assertion on linguistic behavior and prestige awareness.

5. CONCLUSION

The purpose of the paper is to socio-linguistically investigate the RP phonemes /r/ and /l/ among Asante English speakers in Ghana. The sociolinguistic factor for the study was the level of education of participants. Using stratified proportion of 1:1:1, each of the educational groups (Basic, Secondary and Tertiary) had 10 people sampled, making a total of 30 participants. The qualitative data was quantified for the purpose of statistical analysis.

The results showed that the variants [r], [l] and linking [r] were realized in the production of the phoneme /r/ in linguistic context, and the variants clear [l], dark [ɬ] and linking [l] were realized in the production of the phoneme /l/ in linguistic context. It also showed that, for the standard variants [r], linking [r]; and clear [l], dark [l] and linking [l] of the two RP phonemes /r/ and /l/ respectively, there was significant difference between Tertiary speakers and the pre-Tertiary speakers (Secondary and Basic). Even though there was some difference between Secondary and Basic speakers, it was mostly not of significant value.

The study also revealed that only the phoneme /r/ was associated with nonstandard variant [l] which was largely related to the Basic education speakers. This is because, there was a significant difference between the Basic speakers and the post-Basic speakers (Secondary and Tertiary). Notwithstanding the fact that there was no sharp difference between the Secondary and Tertiary, there was still some difference. This means that participants who have Basic

education as their socio-educational background among the Asante English speakers are more likely to realize the nonstandard variant of RP phonemes as compared to the post-Basic (Secondary and Tertiary).

Partly consistent with previous studies (Swan & Smith, 2001; Quartey, 2009; Chakma, 2013), the study pointed out that Asante English speakers, generally, have difficulty pronouncing the RP phoneme /r/. Comparatively, the study further suggests that Asante English speakers, at any given level of education, may find it difficult to pronounce RP /r/ than to produce /l/. This study however note that the difficulty reduces as one progresses from Basic education through to Tertiary education. The study however did not take in to account such social variables as age, gender, occupational and economic backgrounds of the participants, which might have also influenced the results. Consequently, it is recommended that findings of this study be discussed in the context of its scope.

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APPENDIX

SECTION A: PERSONAL INFORMATION

Please read and provide appropriate response [√] and fill in where necessary.

Name: ……

Age: a) 15 – 30 [ ] b) 31 – 45 [ ]

Sex: a) Male [ ] b) Female [ ]

Ethnicity: a) Asante [ ] b) Akyim [ ] c) Fante [ ]

Level of education: a) Basic/Middle [ ] b) Secondary [ ] c) Tertiary [ ]

Language spoken at home: ……..

Other languages spoken: …….

Current residence: ……....

SECTION B: WORD LIST

Please read the following words, paying attention to the commas that separate them.

a pair of, low, context, pull of, row, noun, look, uncle of, verb, rook, head, lake, know, rake, woman, minister of, load, happy, road, sound, lack, rack, name, close, have, grown, flow, froze, play, centre of, block, broke, many, velarise, felt, mould, help, health, called, smell, vocal, total, small, pull, roared, reared, full of, make, cared, person, final of, caller, centre, rear, use, roar, word, mirror, father, denote, doctor, assign, call on, doctor of, come, approval of, base, sail of, fool of, three, pail of, a little of, thing, father of two, because, far of, extent, care of, that, more of, may player of, some, cough, place, than, giver of, instance, pray.

AUTHORS' BIO

Ben Kudus Yussif *is a graduate student at the department of English, University of Cape Coast, Ghana where he obtained his bachelor's degree. He is a Teaching Assistant at the department of communication studies and assist in research at the department of English. He is a budding scholar in the fields of English language and literature. His research interests comprise phonetics, (critical) discourse analysis, sociolinguistics, language and law, African American literature, and gender studies.*

Ibrahim Imoro *is graduate student at the department of arts education, University of Cape Coast, Ghana. He teaches English at Savelegu Senior High School in the northern region. His research areas include second language acquisition phonetics and phonology, discourse analysis, and reading ability.*