RESEARCH REPORT *Sociolinguistics – Variation in the pronunciation of /r/*

Name: Nathalie Nede
Student number: 3858812

## 1. Introduction

The phoneme /r/ is one of the most studied variables in sociolinguistics because of its high degree of phonetic variability and social salience. Across languages, /r/ may be realised as an alveolar trill, uvular fricative or trill, approximant, or other variants. These realisations often carry regional and social meaning, making /r/ a interesting subject for investigating socially conditioned phonetic variation.

The phoneme /r/ in Dutch displays considerable phonetic variation, with realisations including the alveolar trill [r], the uvular trill or fricative [ʀ]/[ʁ], and the approximant [ɹ]. Pronunciation varies according to region, social background, and phonological position (Sebregts, 2015). In Suriname, Dutch coexists with Sranan, an English-based creole[1] language that functions as a lingua franca across ethnic groups and predominantly employs alveolar realisations of /r/. Sustained contact between these phonological systems may influence rhotic realisation in Surinamese Dutch.

This study investigates to what extent the phonetic realisation of /r/ differs between Afro-Surinamese Dutch speakers born in Suriname and monolingual native Dutch speakers born in the Netherlands. The independent variable in this study is speaker group, operationalized in terms of place of birth and linguistic background, with ethnicity considered as a potentially interacting sociolinguistic factor. The dependent variable is the phonetic realisation of /r/, categorised as alveolar [r], uvular [ʀ], or approximant [ɹ].

## 2. Theoretical Framework

### 2.1 Variation in Dutch /r/

Variationist sociolinguistics assumes that linguistic variation is systematic and socially structured rather than random (Labov, 1966). Linguistic variables consist of multiple variants whose distribution correlates with social factors such as region, class, and ethnicity. Importantly, socially meaningful variation typically involves differences in frequency rather than categorical structural divergence.

The rhotic consonant has been central to this tradition. Labov's (1966) study of rhoticity in New York City demonstrated how the realisation of /r/ indexed social stratification and prestige. In Dutch, /r/ similarly exhibits regional and social stratification. Alveolar trills have traditionally been associated with certain regional varieties, uvular variants with western Dutch, and the approximant [ɹ] has gained prominence in contemporary urban speech, particularly in the Randstad (Sebregts, 2015). The rise of the approximant suggests an ongoing change influenced by urban norms and prestige dynamics.

[1] The term "creole" is used in its established linguistic sense. Given its origins within colonial classificatory frameworks, the alternative designation "adaptive language" is proposed here to foreground the structural flexibility, rapid evolutionary capacity, and community-driven innovation characteristic of such contact-emergent languages. The conventional term is retained in the main text for clarity and comparability with existing scholarship.

| Variant | IPA | Articulation | Acoustic Character | Social Index |
|---|---|---|---|---|
| Alveolar Trill | [r] | Tongue-tip trill | Clear, sharp | Traditional, formal |
| Uvular R | [ʀ] / [ʁ] | Back-of-mouth trill/fricative | Darker, softer | Urban mainstream |
| Approximant | [ɹ] | Postalveolar approximant | Soft, glide-like | Elite/media-associated |

**Table 1**
*Phonetic variants of Dutch /r/ and their articulatory, acoustic, and social characteristics*

### 2.2 Language Contact and Multilingual Context

In multilingual settings, additional dynamics influence phonetic distribution. Language contact theory predicts that sustained contact between languages may affect phonological systems, often through changes in the frequency or reinforcement of specific variants rather than wholesale structural replacement (Thomason & Kaufman, 1988).

Dutch in Suriname developed within a multilingual and postcolonial context in which it coexists with Sranan and other languages (Siewierska et al., 2018). Sranan functions as a lingua franca across ethnic groups and predominantly employs alveolar rhotics. Continued exposure to alveolar realisations in everyday multilingual interaction may contribute to the maintenance or reinforcement of alveolar variants in Surinamese Dutch.

Ethnicity may further interact with these processes. Sociolinguistic research demonstrates that phonetic variables can index ethnic affiliation through differences in variant weighting within a shared language system (Labov, 1966). However, such differences typically reflect distributional preferences rather than distinct phonological systems. The present study therefore examines whether systematic differences in rhotic distribution can be observed between the two speaker groups.

## 3. Research Question

To what extent does the phonetic realisation of /r/ in Dutch differ between Afro-Surinamese Dutch speakers born in Suriname and monolingual native Dutch speakers born in the Netherlands?

## 4. Methodology

### 4.1 Participants

Six speakers participated in the study, divided into two groups of three. Group 1 consisted of monolingual native Dutch speakers born and raised in the Netherlands (two female, one male). Group 2 consisted of Afro-Surinamese native Dutch speakers born and raised in Suriname (one female, two male). Participants ranged in age from 32 to 72 years.

Afro-Surinamese speakers reported growing up in a multilingual environment in which Dutch coexisted with Sranan. No participants reported speech or hearing impairments. Given the small sample size, the study is exploratory in nature.

### 4.2 Materials

The speech material consisted of the Dutch version of the fable *De noordenwind en de zon*, commonly used in phonetic research due to its range of phonological environments. Each speaker produced 36 tokens of /r/, yielding a total of 216 tokens.

### 4.3 Procedure

Participants were recorded individually using a smartphone recording application in a quiet indoor environment. They were instructed to read the text at a natural speaking pace and without exaggeration. No specific instructions regarding /r/ were provided. Verbal consent was obtained from all participants.

### 4.4 Data Coding and Analysis

All /r/ tokens were identified manually and categorised auditorily as alveolar [r], uvular [ʀ], or approximant [ɹ]. Tokens were replayed when necessary to ensure consistent classification.

The dependent variable was rhotic realisation; the independent variable was speaker group. Frequencies were calculated per speaker and aggregated per group using Microsoft Excel. Percentages were computed to allow comparison. A chi-square test was considered; however, results are interpreted cautiously due to the limited sample size.

## 5. Results

A total of 216 tokens were analysed. Netherlands-born speakers most frequently produced the approximant [ɹ] (50%), followed by the alveolar trill [r] (26%) and uvular [ʀ] (24%). Afro-Surinamese speakers strongly favored the alveolar trill [r] (69%), while uvular realisations occurred in 22% of cases and the approximant in only 9%.

Both groups produced the same set of variants, but their distribution differed substantially. The most pronounced contrast lies between the approximant and alveolar realisations.

| | [r] | [ʀ] | [ɹ] |
|---|---|---|---|
| Speaker 1 | 13 | 3 | 20 |
| Speaker 2 | 3 | 17 | 16 |
| Speaker 3 | 12 | 6 | 18 |
| Total | 28 | 26 | 54 |

**Table 2**
Frequency of /r/ variants in monolingual Dutch native speakers

| | [r] | [ʀ] | [ɹ] |
|---|---|---|---|
| Speaker 4 | 25 | 9 | 2 |
| Speaker 5 | 23 | 9 | 4 |
| Speaker 6 | 26 | 6 | 4 |
| Total | 74 | 24 | 10 |

**Table 3**
Frequency of /r/ variants in Afro Surinamese Dutch native speakers with Sranan as lingua franca.

| Variant | Dutch (%) | Afro-Surinamese (%) |
|---|---|---|
| [r] alveolar | 26% | 69% |
| [ʀ] uvular | 24% | 22% |
| [ɹ] approximant | 50% | 9% |

**Table 4**
Percentages of /r/ variants used in both groups

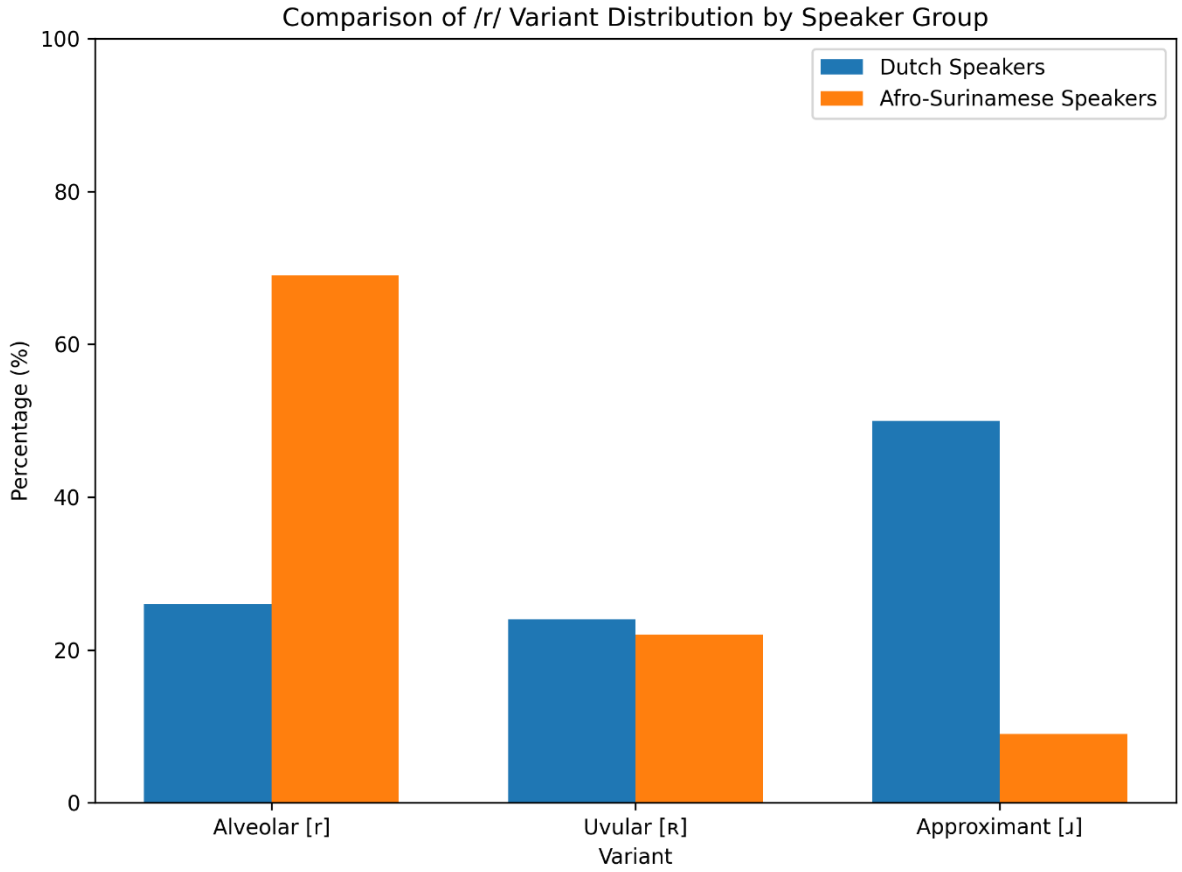


**Figure 1**
Comparison of the percentage distribution of /r/ variants (alveolar [r], uvular [ʀ], and approximant [ɹ]) produced by Netherlands-born Dutch speakers and Afro-Surinamese Dutch speakers.

## 6. Discussion

The findings reveal systematic pronunciation differences between the two speaker groups. Both groups share the same phonological inventory, but weight rhotic variants differently. This supports a variationist interpretation in which social background influences variant frequency within a shared system (Labov, 1966).

The dominance of the approximant among Netherlands-born speakers aligns with research indicating its prominence in contemporary urban Dutch (Sebregts, 2015). Conversely, the strong preference for alveolar realisations among Afro-Surinamese speakers may reflect reinforcement from Sranan,

consistent with contact-induced influence on phonological distribution (Thomason & Kaufman, 1988; Siewierska et al., 2018).

The comparable use of uvular variants suggests structural overlap between the groups, indicating that differences are distributional rather than categorical. The results therefore demonstrate how linguistic ecology and multilingual experience can shape subtle but systematic phonetic variation.

**Limitations**

The small sample size limits generalisability. The reading task may not fully reflect spontaneous speech, and auditory coding without acoustic analysis introduces potential subjectivity.

**Future Research**

Future research should include larger speaker samples, spontaneous speech data, and acoustic measurements. A more detailed analysis of phonological environment and generational variation could further clarify the interaction between contact, prestige, and phonetic distribution.

## 7. Conclusion

This study examined whether the phonetic realisation of /r/ differs between Afro-Surinamese Dutch speakers and monolingual Netherlands-born Dutch speakers. The findings reveal clear distributional differences: Netherlands-born speakers favor the approximant [ɹ], whereas Afro-Surinamese speakers strongly prefer the alveolar trill [r].

The groups share a common phonological repertoire but differ in variant weighting, supporting variationist sociolinguistic theory. The results highlight the influence of multilingual context and linguistic ecology on phonetic distribution within Dutch. Although exploratory, the study underscores the importance of examining subtle variation in multilingual and postcolonial settings.

## References

Labov, W. (1966). *The social stratification of English in New York City*. Center for Applied Linguistics.

Sebregts, K. (2015). *The sociophonetics and phonology of Dutch /r/*. LOT Publications.

Siewierska, A., Delbecque, N., & De Vogelaer, G. (2018). Standard language dynamics in Suriname: The role of Dutch in a postcolonial multilingual society. *Journal of Sociolinguistics, 22*(2), 143–162. https://doi.org/10.1111/josl.12270

Thomason, S. G., & Kaufman, T. (1988). *Language contact, creolization, and genetic linguistics*. University of California Press.