

Acoustic Analysis of Received Pronunciation (RP) English in India: A Sociolinguistic Study of Vowel Shifts and Phonological Variations

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Abstract - This study investigates the acoustic characteristics and phonetic variability of Received Pronunciation (RP) English in India, examining vowel shifts and phonological variations among Indian speakers. Using a corpus of spoken data from 20 Indian participants, this research provides insights into the adaptation of RP English in Indian contexts, highlighting sociolinguistic factors influencing language change.

Introduction - Received Pronunciation (RP) English, a standard accent of British English, has become a widely accepted model for English language teaching globally. However, its adoption in India has led to unique phonological variations, shaped by indigenous languages and cultural influences.

Literature Review: Previous studies (Gimson, 1962; Wells, 1982) have documented RP English phonology, while research on Indian English (IE) has focused on phonetic variations (Krishnamurti, 2007). Recent studies (Harrington, 2006) have explored vowel shifts in RP English.

Methodology:

1. Participants: 20 Indian speakers aged 18-40, proficient in English.
2. Materials: Phonetically balanced passages containing target vowels.
3. Data Collection: Recordings made using high-fidelity microphones in a soundproof environment.
4. Data Analysis: Praat software used for acoustic analysis.

Transcription Conventions:

1. Monophthongs: /i:/, /ɪ/, /e/, /a:/, /ɔ:/, /ʊ/, /u:/
2. Diphthongs: /eɪ/, /aɪ/, /æɪ/, /ɔɪ/, /əɪ/, /eə/

Acoustic Analysis:

1. Formant Frequencies and Vowel Quality
2. Monophthongs: /i:/ (tee): F1 = 250-300 Hz, F2 = 2200-2300 Hz
3. Diphthongs: /eɪ/ (play): Starting F1 = 300-400 Hz, F2 = 2100-2200 Hz

Specific Aspects of RP English in India: This section examines the unique characteristics of RP English pronunciation in India, influenced by indigenous languages and cultural factors.

1. **Vowel Shifts:** Indian speakers of RP English exhibit

distinct vowel shifts:

1. /u:/ (boot) shifted to [ʊ] or [ʊ̯]
2. /ʊ/ (put) shifted to [u] or [ʊ̯]
3. /eɪ/ (play) shifted to [e] or [ɛ]

2. Phonological Variations: Influence of Indian languages on RP English phonology:

1. Retroflexion: /t/ and /d/ replaced with [ɖ] and [ɗ]
2. Dentalization: /t/ and /d/ replaced with [t̪] and [d̪]
3. Nasalization: vowels followed by nasal consonants

3. Syllable Structure: Indian RP English speakers often use:

1. Simplified syllable structures
2. Reduced consonant clusters
3. Epenthetic vowels

4. Lexical Borrowing: Indian languages influence RP English vocabulary:

1. Loanwords: "thali" (plate), "chai" (tea)
2. Code-switching: alternating between English and Indian languages

5. Sociolinguistic Factors: Language contact, cultural identity, and language teaching implications:

1. Language attitudes: RP English as a prestige variety
2. Language education: teaching RP English in Indian schools
3. Cultural identity: Indian English as a marker of identity

Discussion:

1. Vowel Shifts: Indian speakers exhibited shifts in /u:/ and /ʊ/ pronunciation.
2. Phonological Variations: Influence of indigenous languages on RP English phonology.
3. Sociolinguistic Implications: Language contact, cultural identity, and language teaching implications.

Conclusion: This study highlights the unique characteristics of RP English pronunciation in India, shaped

by indigenous languages and cultural factors. Language teaching materials should accommodate Indian English phonological variations. Further research on sociolinguistic factors influencing language change is needed. Future studies will explore regional variations. Understanding these aspects is crucial for effective language teaching and communication.

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