

“Multi-Competence” of the Inter-State Migrant Students of India: A Comparative Study between Bangla, Hindi, English and Telugu in Terms of Phonology

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Abstract

In this study, the “multi-competence” of the inter-state migrant students of India who deal with four languages at the same time will be explored. The typological distance and the possible language transfer between Bangla, English, Hindi, and Telugu in terms of segmental and supra-segmental features will be tried to examine. According to the New Education Policy 2020, three-language formula has been adopted in schools of India. Generally, most of the states have taken English, Hindi and the regional language of the respective states to implement the three-language formula in schools. But people who move from one state to another learn their L4 as the third language in schools. For example, when one socioeconomically privileged Bengali moves to Telangana whose mother tongue is Bangla, he/she learns English as L1, Hindi as L2 and Telugu as L3. Here in this paper, along with English and Hindi, Bangla and Telugu have been chosen for this study as the mother tongue of the author is Bangla and the author is a resident of Telangana. This study is relevant for all the inter-state migrant students whose mother tongue is not Hindi or English. These students learn three languages in a formal set up in school in addition to their mother tongue. To learn a language, we need to acquire multiple subsystems of that language, for example, its phonology, vocabulary, writing system, grammar etc. In this study, the phonological differences of Bangla, English, Hindi, and Telugu will be discussed to understand the varied knowledge of the Indian inter-state migrant students.

Keywords: Multi-competence, Inter-state migrant, phonology, Typological distance, Language transfer, Interlanguage

Introduction

India is a multilingual country, and it is India’s multilingualism that holds the country together amongst colossal linguistic differences. Abram de Swan argued that languages form

a global constellation and they are found in a hierarchy, namely peripheral, central, super-central and hyper-central.¹ Among total 780 languages, Hindi and English are the two super-central languages in India. There are 22 central languages, such as Bengali, Telugu, Marathi etc. and the rest are peripheral languages.² According to Swaan “English is the only hyper-central language that holds the entire world language system together” (Swaan. 2001, p.17).

Speakers of peripheral and central languages learn super-central languages as these languages are placed in a higher level in the hierarchy. It is necessary to understand the hierarchy of languages to understand the choice of first, second or third language on the part of the students. The socioeconomically privileged group always choose English as their first language as it is a hyper-central language.

According to the New Education Policy 2020, three-language formula has been adopted in schools which was first implemented by the Indira Gandhi Government in the National Education policy, 1968. Education is a state subject, so things play out differently in Hindi belt and non-Hindi belt. Generally, most of the states have taken English, Hindi, and the regional language of the respective states to implement the three-language formula in schools. Internal migrant students of India who relocate from one state to another end up being a linguistic minority in their own country. These students learn their L4 as their L3 in school. For example, when one socioeconomically privileged Bengali moves to Telangana where learning Telugu is mandatory, learns English as L1 most of the time, Hindi as L2 and Telugu as L3. In most of the cases these students do not know how to read and write their mother tongue as there is no opportunity to learn their mother tongue in a formal set up in school. These students use their mother tongue in their communication with family members and friends. So, the internal migrant students deal with four languages at the same time from a very young age up to class 8.

¹. Hypercentral languages are used as a lingua franca across the world by the non-native speakers. E.g.- English. Supercentral languages are used by the native and non-natives all through the world. Central languages are used within a particular region by the natives and non-natives. Peripheral languages are spoken by the native people of a single region. (see Swaan.p.1-17) (see Cook.p.189-192).

² In 2010, People’s Linguistic Survey of India (PLSI) found out total 780 languages in India. The Republic of India has 22 scheduled languages as per the eighth schedule to the constitution of India.

To learn a language, we need to learn multiple sub-system of that language, for example: its phonology, vocabulary, writing system, grammar etc. To understand the “multi-competence” of the Indian internal migrant students in terms of phonology, we will discuss the typological distance and possible language transfer between Bangla, English, Hindi and Telugu in terms of segmental and supra-segmental features.³ Through some case studies we will try to get a clear picture of the ground reality of the present state of India’s multilingual situation and the ‘multi-competence’ of the internal migrant students.

Origin of Bangla, English, Hindi, and Telugu

English, Hindi and Bengali are from Indo-European language family. English has evolved from Germanic branch, whereas, Hindi and Bangla are categorised as the New Indo-Aryan languages of the Indo-Iranian language family. Bangla along with Oriya, Assamese and some other languages developed from Magadhi Apabhraṅsa (Chatterji, p.91). The standardized form of Hindi which is commonly known as *Khari Boli* developed by taking loan words from a wide range of languages, such as Sanskrit, Arabic, Persian, Turkish, Portuguese and English (Shapiro 1989, p.5). Telugu is a language of the Dravidian language family which is genetically unrelated to the Indo-Aryan languages like Hindi and Bangla. The English language of today is the language of the dialects spoken by the Germanic tribe like Angles, Saxons and Jutes. English is related to the low west Germanic branch of the Indo-European family (Baugh and Cable, p.57). So, in terms of origin there is a wide variety between Bangla, English, Hindi and Telugu. Students should have a great deal of expertise to acquire these four languages at the same time.

‘Multi-competence’ and Interlanguage

According to V. Cook, ‘multi-competence’ is the knowledge of more than one language in the same mind. So, in this case, student’s knowledge of their first language and their ‘interlanguage’ in the second, third or a fourth language coexist in the same mind and form a language super-system.⁴ Selinker introduced the term ‘interlanguage’ in his seminal paper called “Interlanguage” in 1972. According to him one second language learner develops a

³ V. Cook coined the term ‘multi-competence’ to describe the knowledge of more than one language in the same mind.

⁴ Most of the socioeconomically privileged internal migrant students opt for English as their first language and they do not have any opportunity to learn their mother tongue in a formal set up in school. These students only know how to speak their mother tongue in most of the cases. We have included four languages in our discussion about phonology only because of this reason.

separate system called ‘interlanguage’ by activating his or her ‘latent psychological structure’ which is different from the native language and the target language system.

An ‘interlingual situation’ is a specific blend of native language, target language and interlanguage. Selinker observed that there are five processes which are key to the second language acquisition- language transfer, transfer of training, strategies of L2 learning, strategies of L2 communication, and overgeneralization of target language rules.

In terms of manner and place of articulation there could be a lot of variety in the sound inventories of four languages.⁵ When one student learns to speak four languages at the same time, they need to know the sound inventories of four languages. After learning our first language when we learn a second, third or fourth language, the knowledge of our first language can impact the learning to a great extent. Typological distance between languages and language transfer from our first language play a significant role in our second language learning along with some other factors like motivation, learner’s age, learning environment, language exposure, learner’s cognitive development etc. In the next section the typological or linguistic distance between Bangla, English, Hindi, and Telugu in terms of segmental and suprasegmental feature will be discussed

Typological Distance Between Bangla, English, Hindi and Telugu in Terms of Phonology

Typological distance or linguistic distance is how one language is different from another in terms of phonology, morphology, syntax, orthography etc. According to the Behaviourist theory, our L1 habits interfere with the development of our L2 habits. The Contrastive Analysis Hypothesis propounded by Lado, Fries, and Weinreich in the 1950s and 1960s claimed that the difference between our L1 and L2 is the result of our L2 errors.

Languages in Contact by Uriel Weinreich and *Linguistics Across Cultures* by Robert Lado are the two pioneering works from where we can get a clear insight about language distance and language transfer or “interference”. Robert Lado pointed out that “the students who comes in contact with a foreign language will find some features of it quite easy and others extremely difficult. Those elements that are similar to his native language will be simple for him, and those elements that are different will be difficult.” Towards the end of the 1960s

⁵ . Sound inventories of Bangla, English, Hindi, and Telugu with description of minimal pairs have been added in the appendix.

cognitive psychology started to spread its domination over behaviourism with the emergence of the Interlanguage by Selinker. Later Rod Ellis (2015) observed that “language distance also has more complex effects on language transfer than those predicted by the Contrastive Analysis Hypothesis”. According to him both positive and negative transfer can occur when there are similarities between two languages.⁶

In this study, the typological distance between Bangla, English, Hindi and Telugu in terms of segmental and suprasegmental features will be discussed. According to Robert Lado “when learning a foreign language, we tend to transfer our entire native language system in the process. We tend to transfer to that language our phonemes and their variants, our stress and rhythm patterns, our transitions, our intonation patterns and their interaction with other phonemes”. So, as the number of languages involved in the process grows, the difficulty to understand the cross-linguistic influence also surmounts. Individual learner history is vital to understand the cross-linguistic distance and transfer.⁷ In this study those unique instances where mother tongue is Bangla, L1 is English, L2 is Hindi and L3 is Telugu will be discussed.

Let us start with the linguistic distance between Bangla, English, Hindi and Telugu.

Consonants

1. Bangla, Hindi, and Telugu have a series of aspirated and unaspirated stops both voiceless and voiced unlike English. In Telugu aspirated stops /p^h,b^h,t^h,d^h,t^h,d^h,k^h,g^h/ are found mainly in Sanskrit borrowing words and they are less frequent in the native phonemic system.⁸ In Bangla and Hindi aspiration is a distinctive phonemic feature because aspirated and unaspirated stops are found in a contrastive distribution. On the other hand, aspiration is an allophonic variation in English as aspirated and unaspirated stops are found in a mutually exclusive environment. In English, voiceless stops /p, t, k/ are aspirated when they occur at the beginning of a stressed syllable. So, in English voicing and aspiration are associated with each other, whereas, in Bangla, Hindi and Telugu these two features are independent of each other.

⁶See Rod Ellis (2015), p.123 for a detailed discussion of this topic.

⁷ Sharwood Smith and Kellerman (1986) proposed that ‘crosslinguistic influence’ would be a more theory neutral term to describe the way one language interacts with other (cited by Rod Ellis 2015. p.119)

⁸See Krishnamurti and Gwynn (1985), ‘Introduction’ for a detailed analysis

2. In English /t, d/ are alveolar plosives. The tip and Blade of the tongue make firm contact with the alveolar ridge to produce these sounds. Bangla, Hindi and Telugu do not have alveolar stops. These languages have two sets of similar kind of sounds which are dental and retroflex sounds. Dental plosives /t,d/ are articulated by a firm contact of the tip of the tongue with the back of the upper teeth near the gums. The Retroflex sounds /ʈ, ɖ/ are articulated when the tip of the tongue curls back and makes a firm contact with the post-alveolar region.

3. In Bangla, Hindi and Telugu, we see gemination or double consonant which is a sequence of identical segments within a single morpheme. For example, in Bangla we find words like /bɔccɔ/< boy. In Hindi and Telugu, we have words like /munna:/< kid, /ukku/< steel respectively. This phenomenon of gemination or double consonant is not found in English language.

4. Bilabial nasal /m/ and velar nasal /ŋ/ have equivalent in Hindi and Bangla. In Telugu, /ŋ/ is one of the realisations of /n/ occurring before velar plosives in medial position. For example- /ankamu/ <number>. In modern Telugu a new sound change has occurred by merging /m/ with /w/ in a few lexical items like /mɐ:miɖi/ > /mɐ:wiɖi/- <mango> (Krishnamurti 2003, p.150). In Bangla and Hindi /n/ is a dental nasal, whereas, in English /n/ is an alveolar nasal. We find retroflex /ŋ/ in Hindi and Telugu but in English there is no retroflex sound like /ŋ/.

5. In English, the dental fricatives /θ, ð/ are pronounced by the tip of the tongue making a light contact with the upper front teeth. In Bangla, Hindi and Telugu there are no dental fricatives like these two sounds. The near equivalent sounds which can replace /θ, ð/ are aspirated dental plosive /tʰ/ and unaspirated dental plosive /d/ respectively.

6. In English, /tʃ, dʒ/ are palato-alveolar affricate which are articulated by a firm contact between the tip and blade of the tongue and the alveolar ridge. Hindi /tʃ, dʒ/ are more or less same as English. In Bangla, the equivalent sounds /c, ɟ/ are palatal stops. In Telugu, /c, ɟ/ have conditioned variants -[tʃ, dʒ] occurs before front vowels and [ts, dz] occurs before non-front vowels.⁹

7. “In most of the south Asian languages /z/ is an allophone of /dʒ/. Most of the South Asian languages lack the phoneme /z/ which may be realised as /z/, /ʃ/, /dʒ/ or even /ɟ/ in such words as pleasure” (Swan & Smith,2001 p.230). This is applicable to Bangla, Hindi and Telugu. In these languages, /z/ is only found in borrowing words from Persian and English.

⁹ See Krishnamurti & Gwynn (1985). P.7 for detailed analysis.

8. In English, /r/ is a post-alveolar frictionless continuant which is articulated when the tip of the tongue approaches the alveolar area but never makes contact with any part of the roof of the mouth. In Bangla there are two flap sounds. The first one is a dental flap which is articulated by the contact of the tip of the tongue with the post-dental or pre-dental region. The second one is a retroflex flap which is articulated by the contact of the tip of the tongue with the post-alveolar region. In Hindi two flap sounds are there just like Bangla. Hindi also has an approximant /r/ which is just like a tongue tap, articulated by a rapid striking of the front of the top of the mouth anywhere from the alveolar ridge to the back of the front teeth (Shapiro, p.17). In Telugu only one /r/ sound is there. There is no retroflex /r/ sound in Telugu.

9. Hindi and Telugu have three sibilants- /s, ʃ, ʒ/ and one glottal fricative /h/. Except the retroflex /ʒ/, English has equivalent sounds for the other three. /ʃ/ and /s/ are the initial sounds of English ‘ship’ and ‘sip’ respectively. The retroflex /ʒ/ is found in Sanskrit borrowing words only (Shapiro, 1989.p.18). Bangla has one sibilant phoneme, the palate-alveolar /ʃ/ and the dental or alveolar /s/ is only a subsidiary form of it. /ʃ/ normally becomes /s/ when occurring before /t, d, n, r, l/ (Chatterji, 1926. p.546). The use of the palatal /ʃ/ for /ś, ʃ, s/ is the central point of Bengali articulation (Chatterji, 1926. p.551). The pronunciation of glottal fricative /h/ in Bangla is same as other three languages.

10. In English, approximants /j/ is a palatal semi-vowel and /w/ is a labio-velar semi-vowel. Phonetically they are like vowels but phonologically they are like consonants. The Articulation of /j/ is similar to /i/ and the articulation of /w/ is similar to /u/ (Roach, 2009 p.50). In Hindi there are two approximants- /v/ and /j/. The pronunciation of /v/ ranges from /w/ sound in water to the /v/ sound in ‘victory’. So, in Hindi there is not much difference between the two sounds (Shapiro, 1989. p.18). In Hindi, the articulation of /j/ is similar to /i/ as in the word like /jar/- ‘buddy’. In Bangla, the old Indo-Aryan semi-vowels have gone through a lot of change and Bangla started with its own semi-vowel glides /e, o/ which are optional intervocal sounds only (S.K.Chatterji, 1926.p,274). Telugu also has two approximants /v/ and /j/. In Telugu the phonetic realisation of the approximant /v/ are [v] and [w].

Vowels

1. Vowel length is a phonemic feature in English, and Telugu, whereas in Bangla vowel length cannot make any meaning difference.

For example-

English: /fil/ <fil>

/fi:l/ <feel>

Hindi: /mil/ <meet>

/mi:l/ <mile>

Telugu: /ikə/ <in future>

/i:kə/ <feather>

2. In Bangla all vowels have distinctive nasal counterpart. Except /æ/, all vowels of Hindi have their corresponding nasalised form. In Bangla and Hindi nasalisation is a phonemic feature because oral and nasal vowels are in a contrastive distribution.

For example-

Bangla: /bəd^hə/ <obstacle>

/bḗd^hə/ <to bind>

Hindi: /sas/ <mother-in-law>

/sās/ <breath>

In English and Telugu nasalisation is not a phonemic feature.

3. The vowel /æ/ in Hindi and Telugu occurs in English loan words like /bæt/ <cricket bat>. In Telugu we find words like /bændu/ <band>, /mæ:tu/ <mat>. Telugu words generally end with vowel sounds. In borrowing words ending with consonant sounds, sometimes we see an extra /u/ sound like this to compensate that.

4. In English there are three central vowels- /ʌ, ɜ:, ə/ as in words like /bʌt/ <but>, /bɜ:d/ <bird>, and /ə'gəu/ <ago> respectively. In Bangla we find only one central vowel- /ə/ as in /əlo/ <light>. In Telugu short and long form of /ə/ are there as central vowel. English central vowel /ə/ which frequently occurs in unstressed syllable is not present in Bangla and Telugu. Speakers of Bangla and Telugu can substitute /ə/ with other vowel sounds. In Hindi /ə/ is there as in word like /məl/ <rub>. Hindi has another central vowel /ɑ/ as in word like /mal/ <goods>.

- 5 There are 8 diphthongs and 5 triphthongs in English language. In Bangla there are 25 diphthongs and close to 19 triphthongs. There are two diphthongs in Hindi and Telugu /ai/ and /au/.

Suprasegmental Features

Consonant Cluster

Consonant cluster is the sequence of consonants at the beginning or at the end of a single syllable. In English the initial and final consonant cluster occur far more frequently than

Bangla, Hindi, and Telugu. In English, we can find three consonants at the initial position of a nucleus and up to four consonants at the final position of a nucleus. For example-

<splash> /splæʃ/ CCCVC
<screen> /skri:n/ CCCVC
<attempts> /ə'tempts/ VCVCCCC
<twelfths> /twelfθs/ CCVCCCC

In Hindi, few native words are there where we can find initial and final clusters. For example- <hemp> /bʰaŋg/ CVCC. Initial and final consonants are mainly found in borrowing words from Sanskrit, English, and Perso-Arabic. For example- <woman> /stri/ CCCV.

In Bangla also initial and final consonant cluster are rare except in some borrowing words from Sanskrit and English. For example-

<village> /grəm/ CCVC
<train> /trein/ CCVC

In Telugu, the initial and final consonant clusters are rare and the basic word structure comprises of different combinations of consonant and vowel units.

In Bangla, Hindi, and Telugu we find gemination or double consonant in word medial position which is a sequence of identical segments within a single morpheme. In English we cannot find this phenomenon of gemination. For example, we see double consonant in word medial position in Bangla, Hindi and Telugu words respectively-

<flood> /bonnə/
<spoon> /camməc/
<cloth> /bətʃtə/

Stress and Rhythm

In terms of stress and rhythm, English is quite different from Bangla, Hindi and Telugu. English word has a definite place for stress and we are not allowed to change it (O'Connor 1970, p,90). Generally, content words like nouns, main verbs, adjectives, adverbs are stressed and functional words like prepositions, articles, auxiliary verbs are not stressed. Functional words have strong form and weak form. The use of weak forms is an essential part of English speech and we must learn to use the weak forms of 35 English words (O'Connor 1970, p,92). For example:

Word	Weak form	Example
And	ən	blæk ən wait
As	əz	əz gud əz gəuld (O'Connor 1970, p.92)

Roach has observed three levels of stress in English speech. The tonic syllable where the pitch movement is initiated can have the primary stress. The other prominent syllables can have the secondary stress which is weaker than the primary stress. Along with primary and secondary stress, a third level is also identified which can be called unstressed as there is absence of any recognisable amount of prominence (Roach, 2009, p.75).

“In many languages the rhythm unit is syllable: each syllable has the same length as every other syllable and there are not the constant changes of syllable length which occur in English word groups” (O'Connor 1970, p.100). Bangla, Hindi, and Telugu are examples of such kind of languages. These languages are called syllable-timed language, whereas English can be called a stress-timed language. Word-stress is not a phonemic feature in Bangla and all syllables of a multi-syllabic Bangla word are stressed equally (Dimock, Bhattacharji, Chatterjee 2005, p.54). In English, the accent can distinguish the grammatical function of the word. For example- when one word is used as a noun or adjective, the first syllable will be stressed. The same word will be stressed on the second syllable, when it is used as a verb. For example-

' broadcast(noun)	broad'cast(verb)
'challenge(noun)	cha'llenge(verb)

Krishnamurti observed that “Vowel length is the only stable suprasegmental feature in all Dravidian languages” (Krishnamurti 2003, p.58). A syllable with long vowel stands out from others in Telugu just like Hindi. So, there is no fixed syllable for stress in Bangla, Hindi, and Telugu as we find in English.

Hypothesis about the Possible Language Transfer between Bangla, English, Hindi, and Telugu

Bangla and Hindi are the New Indo-Aryan languages of the Indo-European language family. Telugu is a Dravidian language which is genetically dissimilar from the Indo-Aryan

languages like Bangla and Hindi. But many linguists like Suniti Kumar Chatterji, Jules Bloch, Krishnamurti, Sjoberg had observed a great deal of similarities between Indo-Aryan and Dravidian languages and Dravidian impact on Indo-Aryan languages (Krishnamurti, 2003. p.38-42).

Suniti Kumar Chatterji pointed out the impact of Dravidian languages on Indo-Aryan languages in terms of phonology, morphology, syntax and vocabulary (Chatterji, 1926.p.170-178). Here, we will discuss about the impact related to phonetics. According to Chatterji, the insertion of the palatal and labial semi-vowels in connection with front and back vowels, the occurrence of cerebrals, the voicing of intervocal stops, the retention of final vowel is some of the influences of the Dravidian languages on Indo-Aryan languages.

Krishnamurti observed that the Dravidian languages show evidence of extensive lexical borrowing but only a few traits of structural borrowing from Indo-Aryan, whereas Indo-Aryan languages show large scale structural borrowing from Dravidian but very little lexical borrowing. So, we can make a hypothesis here that both Indo-Aryan and Dravidian languages have impacted each other to a great extent. A great deal of positive transfer is possible in terms of phonology between Bangla, Hindi, and Telugu. These three languages have some individual characteristic features of their own. So, negative transfer is also highly likely.

English is an Indo-European language of Germanic branch. In terms of place and manner of articulation, English sounds are little different from Bangla, Hindi and Telugu. So, a great deal of negative transfer along with some positive transfer are possible between Bangla, Hindi, English and Telugu in terms of segmental and suprasegmental features. We will discuss about positive and negative transfer in the next section.

Positive Transfer

1. Bangla, Hindi, and Telugu have a series of aspirated stops. So, when a speaker of Bangla learns Hindi or Telugu, s/he can acquire the sounds of aspirated stops like /p^h, b^h, t^h, d^h, t^h, d^h, k^h, g^h/ very easily. We can see positive transfer of the sounds of aspirated stops among the speakers of Bangla, Hindi, and Telugu.
2. Retroflex consonants are present in Bangla, Hindi, and Telugu language. So, speakers of all these three languages can articulate the retroflex sounds very easily and we see positive transfer of retroflex sounds among the speakers of Bangla, Hindi, and Telugu.

3. Gemination or double consonant is present in Bangla, Hindi, and Telugu. So, speakers of all these languages positively transfer the sounds of geminated consonants.

4. Due to long period of British rule, a good number of English loanwords have entered to all Indo-Aryan and Dravidian languages. So, Bangla, Hindi, and Telugu already have a huge number of English loanwords. Pronunciation has changed to some extent though. For example, English phoneme /f/ has entered through words like <office> /ɒfis/, <coffee> /kɒfi/ etc. So, positive transfer related to English sounds is possible as there are numerous English loanwords in Bangla, Hindi, and Telugu.

Negative Transfer

1. In Bangla, Hindi, and Telugu voicing and aspiration are not associated with each other unlike English. So, speakers of Bangla, Hindi, and Telugu can pronounce voiceless stops /p,t,k/ without aspiration in all positions. They can negatively transfer the sounds of /p, t, k/ of their own language which are not aspirated at the beginning of a stressed syllable.

2. Speakers of Bangla, Hindi, and Telugu can negatively transfer the sounds of retroflex consonants /ʈ, ɖ/ to the English alveolar consonants /t, d/.

3. Bangla, Hindi, and Telugu language speakers can negatively transfer the sounds of aspirated dental plosives /tʰ/ and unaspirated dental plosive /d/ to the English dental fricatives /θ/ and /ð/.

4. In English, /r/ is pronounced only when it is followed by a vowel sound. In all other positions, the sound of /r/ is dropped. The speakers of Bangla and Hindi can pronounce /r/ in all positions

5. In English, /l/ has two allophones- clear[l] and dark[l̥]. Clear [l] is used before vowels and semi-vowel /j/ and dark [l̥] is used before consonants and in final position. Speakers of Bangla and Hindi can pronounce the clear [l] in all positions. Telugu speakers can replace the dark [l̥] in the final position by a retroflex /ɭ/

6. Speakers of Bangla can face problem to understand the distinctive nature of long and short vowel of English, Hindi, and Telugu as vowel length is not a phonemic feature in Bangla. They can negatively transfer the sounds of short vowel to the long vowel.

7. Speakers of Bangla, Hindi, and Telugu can have difficulty to pronounce English diphthongs. They can negatively transfer the initial sound of a diphthong and pronounce it like a monophthong. For example, they can pronounce /geɪt/ as /get/.

9. English central vowels /ʌ, ɜ:, ə/ can pose problem for Bangla and Telugu speakers. They can substitute these vowel sounds with vowel sounds like /ɐ/ or /æ/. For example- /ə'baut/ can be pronounced like /æ'baut/.

10. Initial and final consonant clusters are not so frequent in Bangla, Hindi, and Telugu like English. So, speakers of these languages can insert an extra sound to facilitate the pronunciation of words with consonant clusters. This is known as epenthesis. For example, they can pronounce /sku:l/ <school> as /iskul/, /film/ <film> as /filim/ or /filam/.

11. Pattern of stress is quite different in Bangla, Hindi, and Telugu compare to English as Hindi, Bangla, and Telugu are syllable timed language and English is a stress timed language. Speakers of Bangla, Hindi, and Telugu can pronounce the 'weak form' of the functional words of English as 'strong form' in all positions. Words like 'protest', 'report' will be pronounced in the same way irrespective of their grammatical function.

Conclusions

This study is about the 'multi-competence' of the inter-state migrant students of India whose mother tongue is not Hindi or English. These students have implicit or explicit knowledge of four languages. In addition to their mother tongue they learn three dominant languages as L1, L2, and L3 in school. In spite of the linguistic distances of these four languages inter-state migrant students deal with four languages simultaneously. They constantly code-switch and code-mix between four languages in their verbal communication. In this study those particular instances have been discussed where the mother tongue is Bangla, L1 is English, L2 is Hindi, and L3 is Telugu. Teachers can take into their consideration the differences and the possible language transfers between languages before planning lessons.

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Appendix

Sound Inventory of Bangla:

Table 1: Bangla consonants

		Labial		Dental		Palatal		Retroflex		velar		Glottal
		Unaspirated	Aspirated	Unaspirated	Aspirated	Unaspirated	Aspirated	Unaspirated	Aspirated	Unaspirated	Aspirated	
		-ted		-ted		-ted		-ted		-ted		
Stops	Voiceless	p	p ^h	t	t ^h	c	c ^h	ʈ	ʈ ^h	k	k ^h	
	Voiced	b	b ^h	d	d ^h	ɟ	ɟ ^h	ɖ	ɖ ^h	g	g ^h	
Nasal		m		n						ŋ		
Laterals				l								
Flaps				r				ɽ				
Spirants				s		ś						h

[Adapted from Dimock, Bhattacharji & Chatterjee 2005]

Table 2: Examples

/p/ - /pɛtʃ/ (leaf)	/d/ - /dɛl/ (lentil)
/p ^h / - /p ^h ɛtʃ/ (broken)	/d ^h / - /d ^h ɛl/ (shield)
/b/ - /bɛn/ (arrow)	/k/ - /kɛl/ (time)
/b ^h / - /b ^h ɛn/ (pretance)	/k ^h / - /k ^h ɛl/ (canal)
/t/ - /tɛn/ (tune)	/g/ - /gɛ/ (body)
/t ^h / - /t ^h ɛn/ (piece of cloth)	/g ^h / - /g ^h ɛ/ (sore)
/d/ - /dɛn/ (gift)	/m/ - /mɛ/ (mother)
/d ^h / - /d ^h ɛn/ (paddy)	/n/ - /nɛc/ (dance)
/c/ - /cɛl/ (rice)	/ŋ/ - /ɔŋko/ (arithmetic sum)
/c ^h / - /c ^h ɛl/ (skin)	/l/ - /lɛl/ (red)
/ɟ/ - /ɟɛl/ (net)	/r/ - /hɛr/ (necklace)
/ɟ ^h / - /ɟ ^h ɛl/ (spicy)	/ɽ/ - /hɛɽ/ (bone)
/ʈ/ - /kɛtʃ/ (to cut)	/s/ - /stri/ (wife)
/ʈ ^h / - /kɛt ^h ʃ/ (measure of land)	/ś/ - /ɛsɛ/ (to come)
	/h/ - /hɛt/ (hand)

Table 3: Bangla vowels:

	Front	Central	Back
High	i		u
Mid	e		o

Lower-mid	æ		ɔ
low		a	

[Adapted from Dimock, Bhattacharji & Chatterjee 2005]

Table 4: Examples

/i/- /din/ (day)	/i/- /din/ (day)
/e/- /kenə/ (to buy)	/o/- /bon/ (sister)
/æ/- /k ^h ælə/ (to play)	/u/- /p ^h ul/ (flower)
/ɐ/- /ɐlo/ (light)	

Sound Inventory of English:

Table 5: English Consonants

[Adapted from Roach 2000]

		Bilabial	Labio-Dental	Dental	Alveolar	Palato-alveolar	Palatal	Velar	Glottal
Plosive	Voiceless	p			t			k	ʔ
	Voiced	b			d			g	
Fricative	Voiceless		f	θ	s	ʃ			h
	Voiced		v	ð	z	ʒ			
Affricate	Voiceless					tʃ			
	Voiced					dʒ			
Nasal	Voiced	m			n			ŋ	
Lateral	Voiced				l				
Approximant	Voiceless	ɱ							
	Voiced	w			ɹ		j		

Table 6: Examples

/p/- /pɪn/ (pin)	/ʃ/- /mɪʃən/ (mission)
/b/- /bɪn/ (bin)	/ʒ/- /vɪʒən/ (vision)
/t/- /ten/ (ten)	/tʃ/- /tʃɪn/ (chin)
/d/- /den/ (den)	/dʒ/- /dʒæm/ (jam)
/k/- /kɪt/ (kit)	/h/- /hʌt/ (hut)
/g/- /gɪt/ (git)	/m/- /mæn/ (man)
/f/- /faɪn/ (fine)	/n/- /net/ (net)
/v/- /vaɪn/ (vine)	/ŋ/- /sɪŋ/ (sing)
/θ/- /rɪθ/ (wreath)	/l/- /læmp/ (lamp)
/ð/- /rɪð/ (wreathe)	/r/- /red/ (red)
/s/- /sɪp/ (sip)	/j/- /jet/ (yet)
/z/- /zɪp/ (zip)	/w/- /wet/ (wet)

Vowel Sounds:

Table 7

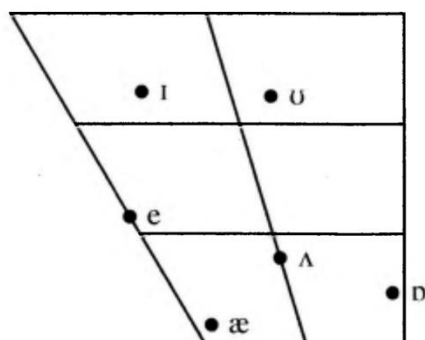
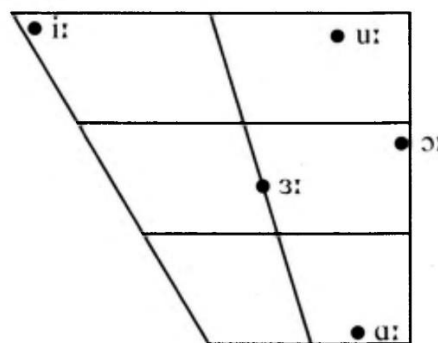


Table 8

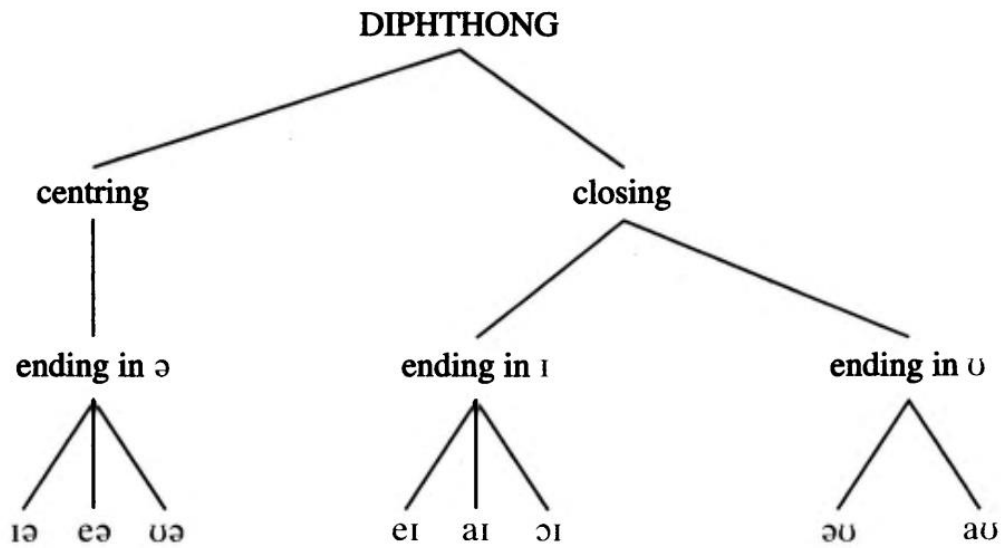


[Adapted from Roach 2009]

Table 9: Examples

/ɪ/- /bɪt/ (bit)	/u/- /pʊl/ (pull)
/i:/- /bi:t/ (beat)	/u:/- /pu:l/ (pool)
/e/- /bet/ (bet)	/ʌ/- /kʌt/ (cut)
/æ/- /bæt/ (bat)	/ɜ:/- /tɜ:n/ (turn)
/ɑ:/- /fɑ:/ (far)	/ə/- /əgəʊ/ (ago)
/ɒ/- /pɒt/ (pot)	
/ɔ:/- /bɔ:t/ (bought)	

I



[Adapted from Roach 2009]

Table 10: Closing Diphthongs:

/eɪ/- /deɪ/ (day)	/aʊ/- /naʊ/ (now)
/aɪ/- /faɪn/ (fine)	/ɔɪ/- /bɔɪ/ (boy)
/əʊ/- /bəʊt/ (boat)	

Table 11; Centring Diphthongs:

/ɪə/- /dɪə/ (dear)	/ʊə/- /tuə/ (tour)
/eə/- /feə/ (fare)	

Table 12: English Triphthongs:

/eɪə/- /pleɪ.ə/ <player >	/əʊə/- /ləʊ.ə/ <lower>
/aɪə/- /faɪə/ <fire>	/aʊə/- /paʊə/ <power>
/ɔɪə/- /rɔɪ.əl/ <royal>	

[Adapted from Roach 2009]

Table 13: Hindi Consonants:

	Bilabial	Labio-dental	Dental	Alveolar	Post-alveolar	Retroflex	Palatal	Velar	Glottal
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Plosive	p b p ^h b ^h		t̪ d̪ t̪ ^h d̪ ^h			t d t ^h d ^h		k g k ^h g ^h	
Affricate					tʃ dʒ tʃ ^h dʒ ^h				
Nasal	m			n				ŋ	
Tap or Flap				r		ɾ ɾ ^h			
Fricative		f		s z	ʃ				h
Approximant		v					j		
Lateral Approximant				l					

[Adapted from Ohala 1999]

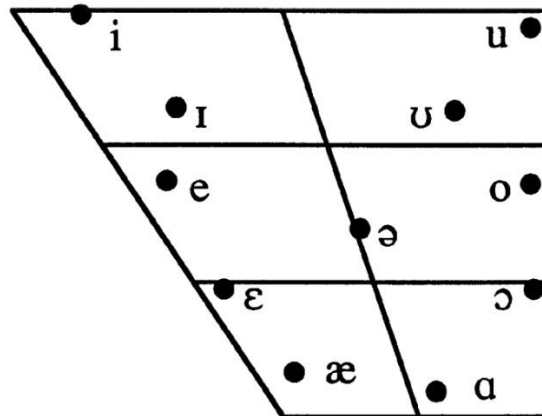
Table 14: Examples

/p/- /pal/ (nurture)	/tʃ ^h /- /tʃ ^h al/ (tree bark)
/b/- /bal/ (hair)	/dʒ/- /dʒal/ (net)
/p ^h /- /p ^h al/ (knife blade)	/dʒ ^h /- /dʒ ^h əl/ (glimmer)
/b ^h /- /b ^h al/ (brow)	/m/- /mal/ (goods)
/t̪/- /t̪al/ (beat)	/n/- /nal/ (drain)
/d̪/- /d̪al/ (lentil)	/ŋ/- /vaŋməj/ (literature)
/t̪ ^h /- /t̪ ^h al/ (platter)	/f/- /farsi/ (persian)
/d̪ ^h /- /d̪ ^h ar/ (knife edge)	/s/- /sar/ (year)
/t/- /tal/ (postpone)	/ʃ/- /ʃal/ (tree species)
/d/- /dal/ (branch)	/h/- /hal/ (condition)
/t ^h /- /t ^h al/ (lumber shop)	/v/- /vala/ (pertaining to)
/d ^h /- /d ^h al/ (shield)	/z/- /zəmin/ (ground)
/k/- /kal/ (span of time)	/j/- /jar/ (buddy)
/g/- /gal/ (cheek)	/r/- /ral/ (tree species)

/k ^h /- /k ^h al/ (skin)	/ɽ/- /bəɽa/ (big)
/g ^h /- /g ^h an/ (bundle)	/ɽ ^h /- /bəɽ ^h a/ (increase)
/tʃ/- /tʃal/ (gait)	/l/- /lal/ (red)

[Adapted from Ohala 1999]

Table 15: Hindi Vowels



[Adapted from Ohala 1999]

Table 16: Examples

/i/- /mil/ (mile)	/ɑ/- /mal/ (goods)
/i/- /mil/ (meet)	/u/- /kul/ (shore)
/e/- /mel/ (harmony)	/o/- /kol/ (lineage)
/ɛ/- /mɛl/ (dirt)	/o/- /bol/ (speak)
/æ/- /bæt/ (cricket bat)	/ɔ/- /kɔl/ (a name)
/ə/- /məl/ (rub)	

[Adapted from Ohala 1999]

Table 17: Telugu Consonants

	Bilabial	Labio - dental	Denti- alveolar	Alveol a-r	Retrofle x	Palato- alveolar	Pal - atal	Velar	Glot t-al
Plosive	p b		t d		ʈ ɖ			k g	
	p ^h b ^h		t ^h d ^h		t ^h ɖ ^h			k ^h g ^h	
Nasal	m			n	ɳ				

Trill				r					
Fricative		f	s		ʂ	ʃ			h
Affricate			ts dz			tʃ dʒ			
						tʃʰ dʒʰ			
Approximant		v					j		
Lateral approximant				l	ɭ				

[Adapted from a paper by Bhaskararao & Ray 2017]

Table 18: Examples

/p/- /pədi/ (a measure)	/h/- /hə:ji/ (pleasantness)
/b/- /bədi/ (school)	/ts/- /tsə:pu/ (man's skirt)
/t/- /təggu/ (low)	/dz/- /dzə:pu/ (to stretch)
d/- /dəggu/ (cough)	/tʃ/- /tʃə:pəm/ (bow)
/t/- /pə:tʃu/ (suffering)	/dʒ/- /dʒə:pəm/ (prayer)
/d/- /pə:du/ (to sing)	/tʃʰ/- /tʃʰəndəm/ (poetic meter)
/k/- /kə:tʃu/ (a bite)	/dʒʰ/- /dʒʰənkə:rəm/ (jingling sound)
/g/- /gə:tʃu/ (dent)	/v/- /və:vu/ (cow)
/pʰ/- /pʰələm/ (result)	/j/- /jə:ju/ (life)
/bʰ/- /bʰə:rəm/ (weight)	/l/- /lə:lə/ (dream)
/tʰ/- /tʰi:rəm/ (teorem)	/ɭ/- /kəɭə/ (art)
/dʰ/- /dʰi:rə/ (valorous)	
/tʰ/- /fontʰi/ (dried ginger)	
/dʰ/- /mu:dʰuqu/ (foolish man)	
/kʰ/- /kʰə:li:/ (empty)	
/gʰ/- /gʰədijə/ (ghati- units of 24 minutes)	
/m/- /və:mi/ (haystack)	
/n/- /və:ni/ (his)	
/ŋ/- /və:ŋi/ (tippet)	
/r/- /rə:lu/ (to fall)	
/f/- /fə:lu/ (hemcloth of saree)	

/s/- /kəisə:ji/ (butcer)	
/ʃ/- /kə:ʃə:ji/ (ochre-colored)	
/ʃ/- /kə:ʃi/ (city in India)	

[Adapted partially from a paper by Bhaskararao & Ray 2017]

Table 19: Telugu Vowels

i	i:	u	u:
e	e:	o	o:
	æ:	ɐ	ɐ:

Table 20: Examples

/i/- /ikə/ (in future)	/u/- /urəkə/ (leaping)
/i:/- /i:kə/ (feather)	/u:/- /u:rəkə/ (unnecessarily)
/e/- /terutsu/ (to open)	/o/- /kodʒi/ (burnt tip of a wick)
/e:/- /te:rutsu/ (to clarify)	/o:/- /ko:dʒi/ (hen)
/ɛ/- /bɛŋdʒu/ (to bend)	/ɐ/- /ɐnu/ (to say)
/æ:/- /bæ:ŋdʒu/ (band)	/ɐ:/- /ɐ:nu/ (to lean on)

[Adapted from a paper by Bhaskararao & Ray 2017]