Research Article

Dominant Language, Urbanization and Lexical Depletion of Native Language: A Corpus Linguistics Study

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Abstract

India is home to hundreds of languages. Each Indian language is unique and an identity marker for individuals, communities, and their culture. The English language, though not native to India, has a significant presence in this vast country. One hundred and ninety years of British colonial rule over India had established English as the 'dominant language' in the country long ago. Rapid urbanization; and the consequent proliferation of telecommunication networks have further increased its dominance over Indian languages in the last few decades. The heavy code-mixing of English words in the Indian languages is reducing the richness of the vocabulary of the Indian languages by replacing their words with English words, thereby initiating 'lexical depletion' based language change in the native languages. This paper is an empirical study to map the code-mixing of English words in the Hindi language and its impact on the Hindi language, as observed in Greater Noida, a town that has seen rapid urbanization since 1991. This paper attempts to explain the implications of code-mixing on the Hindi lexicon by analysing a corpus of spoken language data using corpus-linguistics and computational linguistics methodologies.

Keywords: English Language, Hindi Language, Telecommunication, Urbanization, Lexical Depletion.

SUSTAINABLE DEVELOPMENT GOALS

4 QUALITY EDUCATION | 5 GENDER EQUALITY | 8 DECENT WORK AND ECONOMIC GROWTH | 10 REDUCED INEQUALITIES | 11 SUSTAINABLE CITIES AND COMMUNITIES | 13 CLIMATE ACTION | 15 LIFE ON LAND | 16 PEACE, JUSTICE AND STRONG INSTITUTIONS

1. Introduction

India has amazing linguistic diversity. The People's Linguistic Survey of India (PLSI), conducted from 2009 to 2013, has identified and recorded 780 Indian languages. The survey also discusses the gradual disappearance of many Indian languages. The linguistic data of the 2001 Census shows 100 non-scheduled languages spoken in India, whereas in the 2011 Census, the number of non-scheduled languages dropped from 100 to 99. The lost non-scheduled language is 'Persian'. In just ten years, India lost the speakers of the Persian language (Census, 2011). This is just one example. PLSI estimates that India has lost approximately 250 languages in the last fifty years, and a further 400 languages might disappear in the next fifty years. A language is defined by its speakers' culture, history, and geographical location. Lately, the landscape of the speakers of Indian languages has changed drastically due to rapid urbanization and subsequent migration. Now, speakers are forced to be mindful of the functionality of their language. In a country as linguistically diverse as India, the optimum functionality of a language changes from region to region. One language that overcomes this barrier and is found in every nook and cranny of India is English. Surprisingly, the English language is not native to India.

Language is a medium of communication, but more importantly, it structures human thought (Chomsky, 2016, p. 16). It is said that languages evolved and became complex with the progress of human civilizations. There are numerous theories about the evolution of human languages. Charles Darwin was the first person to point out in *The Descent of Man* (1871) that languages evolve through a process of differential "survival and preservation of certain favoured words" that resembles natural selection (qtd. in Laland, 2017, p. 183). Languages change as they evolve, and internal and external factors play a role in language change. The dominant language is an external factor that leads to different types of language change in non-dominant languages. Observational pieces of evidence suggest that the dominance of the English language over Indian languages is leading to lexical depletion. The code-mixing of English words and phrases in Indian languages has increased manifold. A cursory glance at the popular folk songs, pop music, movies, YouTube videos, TV serials and radio programmes in any Indian language will confirm the observation that many English words have become a permanent part of the vocabulary of Indian languages. The mixing of English words in different Indian languages has created lingoes such as *Hinglish* (i.e. Hindi +English) or *Banglish* (i.e. Bangla + English) or *Punglish* (i.e. Punjabi+English), etc. within these languages. Following are some examples from *Hinglish*.

(1) *Life   mein   kuchcha   easy   nahi   hai.*
    Life   in   anything   easy   not   is
   'Nothing is easy in life.'

(2) *Lockdown   ke   karan   bahut   sari   problems   hain.*
    Lockdown   to   due   many   all   problems   are
   'There are too many problems due to lockdown.'

(3) *Kal   se   exams   start   honge.*

  Tomorrow   from   exams   start   will

   'The exams will start from tomorrow.'

Language is essentially a spoken entity. It changes and evolves with speakers' preferences regarding their speech. So, this colloquialism existing within Indian languages might become part of the formal language with time. Such a possibility is very real.

2. Lexical Depletion

On the basis of formulation, the Hindi language has three types of words- *Roodh*, *Yogik* and *Yogroodh. Roodh* words are the root words and have specific meanings. They can't be broken further into meaningful words. Their syllables have no meaning once segregated from each other. For example, the word- *Karm* (Deeds) is a *Roodh* word. The word is made of two syllables- /*kar*/ and /*m/,* which have no meaning separately. *Yogik* and *Yogroodh* words are formulated either by combining two *Roodh* words, or by adding prefix or suffix to a *Roodh* word.

Roodh Word	Addition of another *Roodh* word	Addition of a prefix	Addition of a suffix	New Word (*Yogik* or *Yogroodh*)	Meaning of the new word
Karm	*Yogi*			*Karm-Yogi*	The one who does good deeds
Karm		*Sad*		*Sadkarm*	Good deeds
Karm			*thh*	*Karmathh*	Hardworker

Table 1- Formulation of words from *Roodh* words

Hindi is a highly inflected language. One *Roodh* word helps in the formulation of a number of other Hindi words. If one Hindi *Roodh* word gets replaced by an English word with the same meaning in everyday conversation of the Hindi speech community, then that might lead to the loss of all the words associated with that *Roodh* word. This is 'lexical depletion'- the loss of the richness of the vocabulary of a language.

Roodh Word	Formulations
आ (*aa*)	आना (*aana)*
	आओ (*aao)*
	आइये (*aaiye*)

	आएं (*aayen*)
	आया (*aaya*)
	आता (*aata*)
	आते (*aate*)
	आती (*aati*)
	आएँगे (*aayenge*)
	आएगा (*aayega*)
	आएगी (*aayegi*)
	आएंगी (*aayengi*)
	आओगे (*aaoge*)
	आओगी (*aaogi*)
	आऊंगा (*aaunga*)

Table 2- Words form with *Roodh* word 'aa'

Table 2 shows fifteen formulations of the *Roodh* word '*aa*'. Many Hindi speakers now use the English equivalent word- 'come', instead. Naturally, the replacement of Hindi word '*aa*' with English word 'come' will lead to the decreased or no usage of its fifteen formulations.

The impact of the English language, as the 'dominant language', on Indian languages has not been discussed much. Various studies have been conducted to trace the phenomenon of code-mixing of two languages, but very few on the impact of code-mixing on the native language. The code-mixing of any two languages is easily observable during conversations among speakers, but the real challenge lies in recording and examining the impact of code-mixing on the native language. Therefore, in an effort to provide solid empirical evidence of code-mixing and subsequent lexical depletion, I decided to conduct a corpus-linguistics study by collecting a corpus of 'spoken-language' data from a newly urbanized place. This paper is the outcome of that study.

3. English, the dominant language

"Code-mixing is a form of linguistic behaviour which produces utterances consisting of elements taken from the lexicons of different languages" (Di Sciullo, 1985, p. 1). It is crucial to understand two important aspects of Indian social and economic life- the 'dominant' status of the English

language in India and the rapid urbanization of India, post-economic reforms of the 1990s- to comprehend the phenomenon of code-mixing completely in the Indian context.

The widespread use of the English language in India is a colonial legacy. English became the medium of Administration and Education throughout the Indian subcontinent when Lord William Bentinck accepted a Minute written by Thomas Macaulay in 1835. Macaulay proposed the introduction of an Education system in English medium in India. He wanted young Indians to be well-versed in the English language to become well-oiled cogs in the wheels of the British Empire in India. The English language became the primary medium of instruction when the Universities of Bombay, Calcutta and Madras were established in 1857. Post-Independence, the language riots of the 1960s led to a 'three language formula', in which English was introduced as the chief alternative to any regional language. It was accepted as an 'associate' official language, with Hindi as the official language. It also became the official language of four states (Manipur, Meghalaya, Nagaland and Tripura) and eight Union Territories. English has a distinct standing within Indian society. It is used within the legal system, government administration, secondary and higher education, the armed forces, the media, business and tourism. Wolfram and Schilling's statement on the dominant English language variant among the American English dialects resonates perfectly with the dominant status of the English language vis-a-vis other Indian languages in India.

> The pronunciations of Boston Brahmins are modeled more on standard British English, or Received Pronunciation, than on American English. The fact that an external norm serves as a model for prestige in this instance is actually a commentary on the relative absence of prestige variants in American English dialects. That a British dialect is still held in such esteem a couple of centuries after America gained independence from British rule also may speak to the lingering sociolinguistic effects of colonialism. (Wolfram & Schilling, 2016, p. 174)

English is a language of prestige in India. The imposition of English as the 'official language' of India from 1835 to 1947 by the British colonial regime made the English language the 'Lingua Franca' of India. Its widespread usage in the legislative, executive and judicial branches of the Indian government, pre- and post-Independence of India, has made it the most important language among all Indian languages. Knowledge of this language is a prerequisite for many professional fields in India today. Popham (1996) sums up this phenomenon well when he says, "While the engine of colonialism long ago ran out of steam, the momentum of its languages is still formidable" (qtd. in Master,1998, p. 717).

Italian poet Leopardi describes language as a form of 'capital' that can be utilized to dominate other languages (qtd. in Casanova & Jones, 2013, p. 384). The dominant status of the English language worldwide is definitely a fruit of imperialism, but the continuing dominance of the English language worldwide, Post World War II, is mainly due to the financial viability of the English language. Post World War II, the English language became and still is, the vehicle of the circulation of the most valuable products- the information about the latest inventions and innovations in science and technology (critical to economic and military predominance).

> Thanks to a circular causality that increases the self-evident nature of its position, the dominant language is the one that circulates most freely and easily throughout the world

because it is understood by the greatest number of people, and since its products, reputedly superior, circulate without requiring translation, all plurilinguals (including bilinguals) understand it. The language is a 'travel permit', in a certain sense, in all directions (Casanova & Jones, 2013, p. 380).

4. Urbanization

According to the 2011 Census, 91 million people have been added to the existing urban population in India. It has been predicted that by 2050, 75% of the population of India will be living in and around urban centres. The speed of urbanization in India is maddening. Urbanization is closely linked to the migration from small villages and small towns to urban centres. "Higher growth and larger concentration of urban population in metropolitan areas is an important feature of India's urbanization in the post-globalization period" (Chadchan & Shankar, 2012, p. 38). Urbanization of India is closely linked to the opening up of Indian markets and post-economic reforms, i.e. "systematic liberalization of trade and investment", popularly called Globalization, in 1991 (Panagariya, 2011, p. 199). "Indian urbanization has proceeded as it has elsewhere in the world as a part and product of economic change" (Sivaramakrishnan & Singh, 2005 a, qtd. in Chadchan & Shankar, 2012, p. 39). The economic reforms led to many success stories in different sectors, e.g., the automobile and airline industry, hospitality and tourism, medical services and pharmaceutical industry, etc. (Panagariya, 2011). Urbanization of India from 1991 onwards further enhanced the dominance of the English language in India. English language is the medium of communication in a global market-driven economy. It plays a crucial role in the transmission of information, ideas, and tech know-how. Post-globalisation, the drastic improvement in the quality of telecommunications, and the reach of the internet to the remotest part of India have become the driving force behind the continuing vigorous dominance of the English language in India in the 21st century.

It is precisely because of the globalizing capacity of information and communication technologies, that the present urban revolution is, one could say, immediately global whereas the global effects of previous urban revolutions took longer to become apparent (Nijman, 2012, p. 4).

5. Research Project

Research Site

Greater Noida, the research site for this study, is an integrated township. In 1991, it was built as a smart city by acquiring lands from surrounding villages. This region had approximately 100 villages and seven semi-urban centres previously; now, they are part of Greater Noida, the planned city.

The Liberalization, Privatization and Globalization (LPG) policies of the government of India and opening up of FDI in real estate sector have brought a big boom in the development of large scale private townships variously known as Integrated, NRI or High-Tech townships. These kind of townships are coming up on the peripheral areas of large cities

like Mumbai, Pune, Delhi, Gurgaon, Chennai, Hyderabad, Ahmedabad and Bangalore occupying areas up to 1000 acres and beyond (Chadchan & Shankar, 2012, p. 36-37).

According to the 2011 Census, the population of Greater Noida is over 102,000. This includes an urban population, consisting largely of people who have migrated mainly for technology-related work, and the local population, whose main occupation is agriculture and animal husbandry, but who have also been experiencing diversification in their jobs and occupations due to rapid urbanization and migration. New jobs and business opportunities have influenced the social-political-economic life of local people; it has also impacted their language. Local people speak the Hindi language. On the other hand, English, by default, is the main language used by urban organizations and institutions in India. "Languages are often said to reflect the social realities of their speech communities" (Coulmas,1989, p. 2). The social reality of Greater Noida is that the speakers of different languages and dialects have to mould their languages not only to communicate with each other but also to gain a working knowledge of English to fit in this urbane environment of theirs. "What is at stake when English spreads is not merely the substitution or displacement of one language by another but the imposition of new "mental structures" through English" (Phillipson, 1992, qtd. in Master, 1998, p. 718). Speech communities of Greater Noida might or might not be aware of the dynamics of ever-changing process of communication around them. At times, speakers themselves are not aware of the changes creeping into their spoken language; nevertheless, their spoken language changes as they communicate with other speakers from different linguistic backgrounds on a daily basis.

Data Collection

Sinclair observes that "the language looks rather different when you look at a lot of it at once" (qtd. in Stubbs, 2007, p. 130). This astute observation is the core of this 'corpus-driven' project. Since language change is observable but very difficult to map, I decided to collect spoken samples to build a corpus from scratch and then analyse it. From August 2016 to March 2019, my five research assistants and I visited 16 villages and 7 semi-urban areas of Greater Noida to record 10 to 15 minutes of conversations with randomly chosen respondents. We had one on one conversations with the respondents on the various aspects of life. The Objective was to record language in its most natural form.

> If we found it possible and worthwhile to register every speech utterance in a large community, we should doubtless be able to foretell how many times any given utterance such as *Good-morning* or *I love you* or *How much are oranges today*? Would be spoken within a fixed number of days. A detailed study of this kind would tell us a great deal, especially about the changes that are constantly going on in every language. (Bloomfield, 1964, p. 37)

Our corpus of 750 recordings is representative of the language spoken in the region. Respondents were men and women aged 18-75 from diverse social, economic, and educational backgrounds.

Quantitative data was also collected along with qualitative data to determine the socio-economic factors that might be playing a role in the linguistic choices of the speakers.

Data Analysis

Data triangulation is used for the corpus analysis. Corpus linguistics, discourse analysis, the statistical analysis of the quantitative data, and cross-referencing among these three analytical approaches are used to find and substantiate the conclusive results from our data.

6. Research Findings

Categorization of English Words

The automated analysis of 750 transcriptions provided a list of a total of 306 English words used by the speakers. The list was further segregated into five different word lists based on the contexts in which a particular English word is used by the speakers. Hindi grammar has a specific category for the 'loan words', named as *videshaj.* The first word list has all those English words which fall under *videshaj* category, and are already part of Hindi vocabulary. The second list has English words which don't figure in *videshaj* category. It implies that the Hindi language has words equivalent in meaning to these English words, so the usage of these English words instead of Hindi words in their conversation is the speakers' conscious choice. The third list is of English verbs used as verbs by the respondents in their Hindi sentences. This usage modifies the Hindi syntax a little bit. This is the only instance where Hindi syntax gets modified a little; otherwise, English words, under all other grammatical categories, get adjusted in Hindi syntax without any modifications. The fourth list has English prepositions used as prepositions in Hindi sentences by the respondents. This list has few words. Hindi grammar has limited prepositions with very well-defined usages. That makes the inclusion of English prepositions in Hindi syntax very difficult. The fifth list is the most interesting one. It has English words whose meanings have been coined by the respondents themselves. A closer look at these words through the concordance tool shows that these coined meanings are very different from the actual meanings of the English words. The contexts in which these words are used by the respondents are very different from the contexts in which these English words are used by the speakers of the English language.

The frequency table clearly shows that sixty-six per cent of total English words are used by five or more five speakers. Some words, e.g., use, extra, problem, tension, salary, complaint, family, waste, songs, etc., have a frequency of fifty or above. The frequency table also provides words with a frequency of one or two. These words are outliers and most of them appear to be job-specific, e.g., weeding, welding, elevate, briefing, housekeeping, cash-in-hand, export, contract, tender, cutting-master, etc. Furthermore, the acquisition of some words by the respondents, with a frequency of five or above, also appears to be the direct result of the linguistic interactions at their jobs, e.g., supervisor, field officer, no-entry, inspector, department, phase, filter, training, etc. The reason behind the different frequencies of these job-related word lists is that the first type of words is limited to specific jobs and cannot be used outside the work sphere. Hence, the frequency of one or two, whereas the second type of job-specific words with higher frequency, are commonly used in many professional fields.

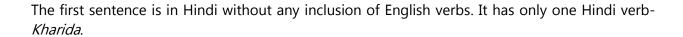## Speakers' preferences and the flexibility of Hindi syntax

The second word list consists of English words for which parallel words in Hindi exist. Speakers prefer to use these English words instead of Hindi words. Speakers' familiarity not only with loan words but also with random English words that suit their needs and their easy usage begs the question- How do English words get so easily adjusted in Hindi syntax? Hindi has phonemic orthography- its graphemes (written symbols) correspond to the phonemes (spoken sounds). English orthography on the other hand is highly non-phonemic. Still English words get so easily adjusted into the syntax of Hindi. Answer probably lies in the origins of these two languages. Both of them belong to Indo-European language family. Hence, they share some linguistic affinities with each other. Hindi is classified as a 'Synthetic' language. Synthetic languages "make use of several morphemes to indicate different grammatical categories" (Hickey, 41). English words get accommodated easily as noun, adjective and adverb within Hindi syntax as 'morphemes' without impacting the sentence structure of Hindi language.

The second reason lies in the evolution of Hindi as a language. Hindi has evolved from *Apbhransh*, which in turn had evolved from *Prakrit* and *Sanskrit* languages. The parent language of many Indian languages is *Sanskrit*. Hence, Hindi language shares many affinities with other Indian languages as well. The typology of Hindi vocabulary is based on the etymology. There are five types of words in Hindi vocabulary- *Tatsam, Tadbhav, Deshaj, Videshaj* and *Anay*. *Tatsam* and *Tadbhav* words are the words that either descended or evolved from *Sanskrit*. *Deshaj* words are the words evolved from other Indian languages. *Videshaj* is the category for the words borrowed from some foreign languages. North India has witnessed constant invasions from the days of Alexander the Great till the advent of British colonisers. All these invaders brought their languages along with them, and many of them also imposed their languages as the 'official language of India' during their rule over India (mostly North India). The ancient and medieval history of India provides ample proof of foreign languages being imposed as India's 'official language' by different invaders at different times. This close contact with other languages brought constant vocabulary-based changes in Hindi, as Hindi and its various dialects were the main spoken languages of North India. Hindi vocabulary, thus, has words from Roman, Persian, Arabic, Turkish and English languages. Hindi has words even from the languages spoken by *Shakas* and *Huns*. All such loan words are included in the category of '*Videshaj*' (i.e. foreign) in Hindi language. Thus, the change in vocabulary-based language is not new to the Hindi language.

Modification in Hindi syntax

Foreign words or loan words became part of Hindi syntax as nouns, adjectives and adverbs. Integration of loan words as nouns, adjectives and adverbs in Hindi language has not impacted the morphology of Hindi much. However, some loan words that became part of Hindi verbs have changed their form through the Hindi grammar rule of inflection. E.g., *Sharm*, a noun from the Persian language, is used as a noun and also as a verb in Hindi through its various inflected forms- *Sharmana, sharmati, sharmata, sharmate, sharmao, sharmayen*, etc.

Our corpus shows that the use of English verbs in Hindi sentences leads to the addition of an extra verb or sentence ending in Hindi. The following are two examples that will clearly explain the modification in Hindi sentences due to the usage of an English verb instead of a Hindi verb.

The first sentence is in Hindi without any inclusion of English verbs. It has only one Hindi verb-*Kharida*.

(1) a. *Usne*   *ek*   *naya*   *ghar*   *kharida*   *hai.*

     He   a   new   house   bought   is

       'He has bought a new house.'

When I use an English verb- buy, instead of the Hindi verb- *kharida*, then the same Hindi sentence uses two verbs- buy and *kiya*. Nevertheless, meaning remains same.

  b. *Usne*   *ek*   *naya*   *ghar*   *buy*   *kiya*   *hai.*

     He   a   new   house   buy   done   is

       'He has bought a new house.'

Another example. Here Hindi verb is- *toot*.

(2) a. *Sheesha*   *galti*   *se*   *toot*   *gaya.*

     Mirror   mistake   by   break   done

       'The Mirror broke by mistake.'

When I use an English verb- break, instead of Hindi verb- *toot*, then the same Hindi sentence uses two verbs- break and *ho*. The meaning of the sentence remains same.

  b. *Sheesha*   *galti*   *se*   *break*   *ho*   *gaya.*

     Mirror   mistake   by   break   happen   done

       'The Mirror broke by mistake.

There is more to it than an additional verb. Not only the Hindi verbs- *kharida* and *toot*- get replaced by the English verbs but their inflected forms also get replaced. This slight modification in Hindi syntax is significant. The syntax of a language is robust; it does not change easily. Hindi syntax, with a long history of easy accommodation of loan words without any modification, is more so. The easy acceptance and comprehension of such modification by Hindi speakers is significant. It will pave the way for more such modifications in future.

Blurring of linguistic boundaries

Language changes out of necessity as well. "As the lexicon of a language is an open class it is constantly expanding. It gains words for new phenomena, concepts, etc. in the society which uses the language" (Hickey, p. 30). The shift of human civilizations from horse-drawn carriages to motorcars introduced a whole new set of vocabulary related to automobiles. Same is true for the 21st century Internet dominated era. A whole set of newly coined words or the old words with the

new meaning have become part of human vocabulary. For example, mouse, monitor, sand-box, cloud, etc. are the words used for a new meaning; whereas internet, website, smartphone, etc. are coined to define the new Internet and computer based concepts.

> There are various means of extending a language's word stock. These can be broken down into two basic groups. The first creates compounds out of material from the language itself and the second resorts to borrowing material, integrating it into the system (phonology, morphology, semantics) of the language as it does so. (Hickey, p. 30).

My fourth conclusion is that language change is not because speakers have crossed boundaries; rather boundaries have changed or blurred due to rapid urbanization and drastic improvement in telecommunication. The proliferation of technology is leading to a richer vocabulary, which in turn, is leading to more code-mixing. English is the dominant language throughout the world right now. Since almost all new technical and scientific inventions from artificial intelligence to material science promulgate through English language, the inclusion of these new English words by the native speakers in their own language leads to some fascinating linguistic innovations. Hindi linguists, who initially did try to coin parallel Hindi words for English technical words but after some disastrous results (e.g. the coinage of Hindi word *Lohpathgamini* for the English word 'Train'), very wisely refrained from doing it further. As a result, new technical terms are included in Hindi vocabulary without much change and are categorized as *Videshaj*. With the advent of Internet, same strategy has been adopted by Hindi grammarians. All the English words related to the devices and concepts of Internet are accommodated in Hindi vocabulary without any change. It has led to some interesting results.

One word to connote various functions

Our data shows that speakers have limited English vocabulary, so many of them tend to use one word for various functions of computer or internet. For example, the word 'Wi-Fi' is used for internet, internet connectivity, fibre broadband connection, dongles, data cards, hotspot, etc. The word computer is used for both desktop and laptop; the word mobile is used for every kind of phone, smartphone, tabs and I-pads; the word video is used for TV serials, movies, YouTube videos and pop songs; so on and so forth. This oversimplification is understandable as most of the speakers use these devices mainly for entertainment, information and news. They consume the online product without comprehending the complex operations behind it. That's why one word, to connote various functions or devices, is sufficient for them.

Coined meanings

Language change is also a type of translation where 'transfer errors' occur at the word or phrase level. Our corpus has some English words which are used by the speakers not for their actual meanings but for the meanings coined by them; the meanings which are very different from the actual meanings of those words. This might be a case of misunderstanding the meanings of the words when a speaker learnt their usage for the first time. Since language is an individual as well as a group activity, this new and different meaning easily finds currency and circulation in this newly urbanized community. One such word is 'duty'. The respondents use this word to connote going to one's office or to the place of the job. The word 'hi-fi' means someone who considers oneself superior to others. It is also used to emphasize the high quality of a device or an electrical

appliance or a gadget. None of the meanings is accurate or even closer to the real meanings of these two words, nonetheless, speakers use these two words both for actual and the coined meanings, and the speech community easily comprehends all the meanings.

> Language change is by definition a failure in the transmission across time of linguistic features. Such failures, in principle, could occur within groups of adult native speakers of language, who for some reason substitute one feature for another in their usage, as happens when new words are coined and substituted for old ones (Kroch, 2001, p. 700).

Curiously, 37% respondents have affirmed that they have learnt most of the 'new' English words through family, friends and neighbours. (Q2 of quantitative questionnaire)

> Mathematical theory sheds light on this issue**...** Social learning is generally favored at intermediate to fast rates of change, because individuals can acquire relevant information without bearing the costs of asocial learning, but with greater flexibility than is the case with unlearned behavior (Laland, 2017, p. 183).

Since the speakers have a little knowledge of English language that too mostly acquired from unqualified speakers or unreliable resources such as movies, YouTube videos, etc., the incorrect meanings disseminate fast in the speech communities, and remain unchecked.
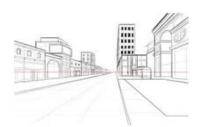
Asymmetrical language change

My fifth conclusion is that language change is asymmetrical. It depends both on individual speaker and the speech communities; and is equally dependent on the factual realities (i.e. richness or meagreness of individual speaker's vocabulary; socio-economic conditions; and individual preferences) of their lives. The cross referencing between the number of English words used by a respondent and his/her answer to the question 2 and question 3 of quantitative questionnaire provided some interesting results. The respondents, who were employed in national and multi-national companies or organizations; or who regularly came in contact with an environment where English is spoken, used more English words compared to the respondents who didn't have such exposure (Q2 of quantitative questionnaire). Similarly, respondents with a flair for reading English magazines and newspapers or watching English movies or serials had had a bigger repository of English words in their vocabulary (Q3 of quantitative questionnaire).

7. Conclusion

The analogy of paved roads and desire lines describes the phenomenon of code-mixing based language change in Greater Noida best. The paved roads are constructed according to the architectural plan and design, keeping in mind the geographical features of that particular region. The desire lines are the paths desired by the users of that area, completely overlooking the principles of architecture and converted into parallel roads by repeated usage.

Image: 1 Analogy of paved road and desire line

The language change observed in Greater Noida is such a desire line- desired by the speakers; very different from the textbook examples of language change.

Declaration of Conflicts of Interests

The author declares no potential conflicts of interest.

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Appendix 1

List-1

English words used by the respondents

List of English words accepted in Hindi language under the category of *'Videshaj'*.

1. Hello
2. Bike
3. TV
4. Coffee
5. Tractor
6. Truck
7. Metro
8. Train
9. Bus
10. Van
11. Cycle
12. Doctor
13. Capsule
14. Card
15. Petrol
16. Movie
17. Factory
18. Shift
19. Walkie-talkie
20. Tender
21. Register
22. Madam
23. Time
24. Local
25. Report
26. Chocolate
27. Game
28. Office
29. Mess
30. Ambulance
31. School
32. Bank
33. Machine
34. Bore
35. Operator
36. Inspector
37. Juice
38. Rifle
39. Gun
40. Minute
41. Second
42. Vote
43. News
44. Channel/s
45. Soft-drink
46. Phone
47. Mobile
48. Mobile- phone
49. Smart phone
50. Internet
51. Computer
52. Message
53. X-Ray
54. Ultra sound
55. Thyroid
56. Telephone-exchange
57. Highway
58. Guard
59. Filter
60. Party
61. Canteen
62. Uncle
63. Aunty
64. Engineering
65. Senior
66. Power
67. Over-time
68. Hotel
69. Mall
70. Ration
71. Action
72. Company
73. Stadium
74. Budget
75. Driver

List-2

List of English words whose Hindi parallels are also in usage

1. Side
2. Security
3. Part
4. Supply
5. Salary
6. Night
7. Complaint
8. Student
9. University
10. College
11. Private school
12. Government school
13. English medium
14. Year
15. Fitness

16. Graduation
17. Objection
18. High school
19. Condition
20. Change
21. Permission
22. Accident
23. Urgent
24. Fault
25. Regular
26. Permanent
27. Total
28. Posts
29. Floor
30. Yes
31. No
32. Village
33. Property
34. Property- Dealer
35. Road
36. Good
37. Very Good
38. Week
39. Week-end
40. Sir
41. Eye-sight
42. Hostel
43. Supervisor
44. Field-officer
45. Routine
46. Maintenance
47. Thank you
48. Sorry
49. Please
50. Register
51. Paper
52. Interest
53. Hours
54. Minimum
55. Impossible
56. Life
57. Connect
58. Corruption
59. Percent
60. Launch
61. Real
62. Survey
63. Support
64. Nature
65. Limit
66. Development
67. Future
68. Family
69. Guilt
70. Guilty
71. Basic
72. Level
73. Feeling
74. Business
75. Labour
76. Interview
77. Responsibility
78. Success
79. Mind
80. Sports
81. Period
82. Experience
83. Mature
84. Impact
85. Comfortable
86. Tough
87. Guardian
88. Hostel
89. Parents
90. Topic
91. System
92. Department
93. Practical
94. Topic
95. Admission
96. Donation
97. Luck
98. Front
99. Gate
100. Tree
101. Class
102. Teacher
103. Principal
104. Intelligent
105. Pure
106. Information
107. Mostly
108. Fresh
109. Problems
110. Primary
111. Education
112. Allowed
113. Shop
114. Shopping

115. Plot
116. Play-ground
117. Main
118. Song/s
119. Hesitation
120. Weeding
121. House
122. Boring
123. House-wife
124. Tension
125. Lecture
126. Boundary
127. Friend
128. Election
129. Something
130. Reason
131. Walking
132. Normal
133. Maintain
134. Famous
135. Nothing
136. Profit
137. Question
138. Month/s
139. Study
140. Talk
141. Dialogue
142. Customer
143. Emergency
144. English

145. Late
146. Husband
147. Gents
148. No Entry
149. Daily
150. Saturday
151. Sunday
152. All
153. Subject
154. Automatically
155. Advance
156. Maths
157. Social Science
158. Science
159. Newspaper
160. Reading
161. New
162. Generation
163. Written Test
164. Body
165. Briefing
166. Room
167. Market
168. Training
169. Post
170. Smoking
171. Day
172. Building
173. Function
174. Waste

175. Chances
176. Easy
177. Hard
178. Difference
179. Housekeeping
180. Can
181. cash-in-hand
182. Zero balance
183. Account
183. Number
184. Income
185. Medium
186. Join
187. Dress
188. Personal
189. Lunch
190. Father
191. Export
192. Buyer
193. Order
194. Item
195. Phase
196. Cutting-master
197. Part-time
198. Job
199. Flat/s
200. Pressure
201. Plus

List- 3

English 'verbs' used as 'verbs' by the respondents

1. Break
2. Buy
3. Change
4. Manage
5. Help
6. Belong
7. Use
8. Explain
9. Enjoy
10. Allow/ allowed
11. Record
12. Support
13. Slip
14. Waste

List- 4

List of English prepositions used as prepositions by the respondents

1. Through
2. Via
3. Between

List- 5

Words with Coined meaning

English words used by respondent for a meaning coined by the 'speech-community' of the respondents.

1. Duty-   It means going to one's office or to the place of job.
2. Free-fund-   to gain something without putting any effort (most of the times useless stuff.)
3. Light- Electricity
4. Tight- to be strict with someone; tension due to some reason; lack of money
5. Paper- for every kind of school, college and university exams.

6. Hi-fi-   someone who considers himself/herself superior to others; gadgets of good Quality.

7. Drink- consuming alcohol.

8. Marketing- shopping.

9. Line- Queue

10. Company- Any small or big organization where one finds a job

11. Drivery- occupation of driving

12. Private- It implies better facilities; expensive

Appendix-2

Quantitative Questionnaire

(To be administered at the end of the session)

Code:

Age:

Please tick only one answer of the following questions:

Q1. Why do you use English words in your conversation?

1) Increases one's prestige

2) Professional requirement

3) Part of vocabulary since school/ college days

4) Don't know

Q2. How do you learn the usage of 'new' English words? New means the English words which have recently become part of your vocabulary.

1) The place of work (national/ multi-national companies or organizations)

2) Regular visits to offices or organizations where English is spoken

3) School or college

4) Family or friends or neighbours

5) Don't know

Q3. Does print or audio-visual or digital media play any role in your acquisition of 'new' English words? New means the English words which have recently become part of your vocabulary.

1) English movies and TV serials

2) Newspapers and magazines

3) YouTube videos and social media

4) Doesn't play any role

5) Don't know

Q4. How does the acquisition of English help you in your life?

1) Increases job prospects

2) Increases one's prestige in the society

3) Helps in higher studies

4) It's of no use

5) Don't know

Q5. Do you think the usage of English words and phrases will increase in future in India?

1) Yes

2) No

3) Don't know

Appendix- 3

Names of villages and semi-urban areas from where data was collected

Villages:

1. Ramgarh
2. Aanandpur
3. Thapkheda
4. Katheda
5. Palla
6. Ghodi-Bchheda
7. Chithera
8. Bodaki
9. Beel Akbarpur
10. Pali
11. Sakipur
12. Astoli
13. Birondi
14. Luharli

15. Rithori
16. Chiti

Semi-Urban Areas:
1. Aichhar
2. Tugalpur
3. Kasna
4. Dadri
5. Rampur
6. Nawada
7. Bironda

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