

**Investigating Multilingual Competence with Special
Reference to Discourse Features, Phonological
Features and Pedagogical Implications**

*Thesis submitted to Jawaharlal Nehru University in partial
fulfillment of the requirements for the award of the degree of*

Doctor of Philosophy

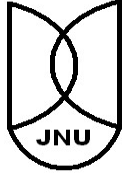
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Dated: 29 April 2022

Declaration by the Candidate

The thesis titled “**Investigating Multilingual Competence with Special Reference to Discourse Features, Phonological Features and Pedagogical Implications**” submitted by me for the award of the degree of Doctor of Philosophy, is an original work and has not been submitted so far in part or in full, for any other degree or diploma of any university or institution.

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Certificate

This is to certify that the thesis titled “**Investigating Multilingual Competence with Special Reference to Discourse Features, Phonological Features and Pedagogical Implications**” submitted by **Mr. Sudhanshu Shekhar**, in partial fulfillment of the requirements for award of degree of Ph.D. of Centre for Linguistics, School of Language, Literature and Culture Studies-I, Jawaharlal Nehru University, New Delhi, has not been previously submitted in part or in full for any other degree of this university or any other university/institution.

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Chapter 1

Introduction

1.1 Background

This thesis concerns itself with two conspicuous aspects of multilingualism, namely, the interaction of grammars and multilingual competence. ‘One-system-or-two’ debate (MacSwan, 2000) has loomed large in the research areas related to the acquisition and use of multiple languages. “The phenomenon of a speaker-hearer having more than one code (language) is called bi/multilingualism” (Wardhaugh 2006). A person who has the capability to use multiple languages to communicate either actively (speech and writing) or passively (reading and listening) is considered a multilingual. Indian linguist, D.P. Pattanayak is the avant-garde linguist who significantly emboldened the notion of multilingualism and offered critical view points about the preoccupation of the western academia pertaining to the notion and theoretical development confined to monolingualism and monoglossia. Pattanayak (1984) states:

“The dominant monolingual orientation is cultivated in the developed world and consequently two languages are considered a nuisance, three languages uneconomic and many languages absurd. In multilingual countries, many languages are facts of life; any restriction in the choice of language is a nuisance; and one language is not only uneconomic, it is absurd”.

1.2 Crucial Research Perspectives in Multilingualism

Linguistic, psycholinguistic and sociolinguistic are the three leading lines of research enquiry attached to the study of bi/multilingualism (Wei 2008). Each of these lines of enquiry exemplifies its separate themes and methodologies for making an enquiry into the area of bi/multilingualism. Under the linguistic perspective, the most prominent questions are, whether and how various codes correspond among one another in a multilingual person’s mind? Psycholinguistic research concerns itself with the cognitive procedures involving the reception and production of speech in a multilingual set-up which takes leverage from experimental and laboratory methods.

The psycholinguistic area of research is not concerned with description and explanation of a multilingual person's speech.

The sociolinguistic outlook frames questions and examines bi/multilingualism as a subject of social and communicative exercise and ideology. It portrays bi/multilingualism as a phenomenon of social construction and the multilingual speakers as social actors. It is not concerned with looking at bi/multilingualism as from the perspective of mental representation vis-à-vis linguistic awareness. The studies and research in bi/multilingualism have provided substantive evidence and data for multilingual competence (Le Page and Tabourter-Keller, 1985). Multilingual competence could be delineated as the capability and prowess to use multiple languages following the grammatical constraints of all the language involved. This posits a critical question about the traditional view two monolinguals in one person counted as a bilingual.

As the world is metamorphosing into a global village, multilingualism is coming to be accepted as a notion characterizing linguistic communities. People moving from one place to other have resulted in a language contact situation which heralded a sociolinguistic setting with various languages, varieties with mother-tongues of the respective communities. Various studies adduce the fact that the majority of the countries are gradually embracing multilingualism. Among 193 nations on the globe, approximately 6,000 languages are being spoken. The figure of multilinguals outnumbers monolingual speakers- an apparent reason why this phenomenon is worth exploring.

Interesting fact is that the so-called monolingual or linguistically homogenous countries too are not untouched by bi/multilingualism or at least multi-dialecticism. This is because a country with officially a single language possesses regional, social varieties of the 'official language'. Even an utterance made by an adult carries idiosyncratic characteristics and there is no valid reason to consider that speech act stemming from a homogenous language. Fishman (1980) draws a distinction between individual multilingualism v/s societal bi/multilingualism. Societal bilingualism is a characteristic of Indian multilingualism, where most of the communities have more than one code, languages or a variety of a language/s in their verbal repertoire.

Examples:

- Hindi and Gujarati in Gujarat
- Hindi, Gujarati and English among the educated population in Gujarat.

Modern linguistic theory has assumed a monolingual perspective. As Chomsky (1965:3) has described the purview of study of language as: “Linguistic theory is concerned primarily with an ideal speaker-listener, in a completely homogeneous speech-community, who knows its language perfectly”. According to him, competence is the central concern of any linguistic theory. Given a multilingual setup, a crucial question that crops up is: How do we measure the competence of a bi/multilingual? The issue of how two or more grammars interact in a multilingual individual’s mind/brain is crucial to the question of multilingual competence. Explanation of what goes at the linguistic level when the speaker/s is switching between languages carries the descriptive concern in linguistic studies. How to capture or construct a grammar for this kind of language? The concern here is both theoretical and descriptive.

1.3 Defining multilingualism (Assessing Multilingual Competence)

Conventionally, for the most part, it is monolingual perspective and theoretical understanding that have governed research in bilingualism/multilingualism and acquisition of second language (Grosjean 1985). The monolingual perspective follows a fundamental notion that no distinction at all in the linguistic advancement of a monolingual or a multilingual. Following this notion, research in multilingualism advance that multilinguals utilize each language separately and each language develops separately in a linear way (Grosjean 1989). Each language which resides in the human mind is treated separated and not in a unified fashion going by this thought of school. Thus there is an underlying thought that multilinguals must have a native-like command over each language or should have equal competence in each language. Contrary to this Grosjean (1989) through his works has shown that majority of bilingual or multilingual speakers are unable to have native-like control over each language that they know (Grosjean 1989).

1.4 Interrogating the notion of Multilingualism

In current research trends in multilingualism, language acquisition and bilingualism, there has been a call for having more holistic view pertaining to language (Block 2003; Lafford 2007). These changing trends have spurred construction of new theories, critical focus on the environment in which the language has been learnt or acquired and the social context (Block 2003). Lafford (2007) holds that there is a need to centralize strategies in communication, which muster resources from all the language rather than conquering a particular language. A multilingual speaker's communication is a mosaic and the interaction among the languages is a multifarious and multifrontal, where each language influences the other language and subsequently affected or governed by other languages (Herdina and Jessner 2002). Therefore, multilingual users develop required competence and not the same or equal competence in each language and thus learn to steer the relationship and use of these languages.

The linguistic practices of a monolingual are not akin to the linguistic practices of multilinguals. Multilingual "has a specific linguistic configuration characterized by the constant interaction and coexistence of the two languages involved" (Herdina and Jessner, 2002). According to Cenoz and Genesse (1998), multilingual persons' repertoire is wider than that of a monolingual, though both might encounter the same communicative circumstances. Besides, a multilingual person is privileged to use multiple languages in communication which encompasses various domains and communicative terrains. They can utilize all the linguistic reserve by using one or all the languages during the same string of conversation or the same utterance. Gracia and Wei (2014) refer this ability of multilingual switching or shuttling from one language to other as Translanguaging. Translanguaging, according to Wei and Gracia (2014) is, "as an approach to the use of language that considers the language practices of multilinguals as one unified linguistic repertoire rather than as two autonomous, separate language systems". Linguistic repertoire is used in totality as occasioned by the context and communicative wants, when a speaker translanguages (Otheguy et al. 2015). Li Wei (2011) defined translanguaging in the following words:

"the ability to choose between following and flouting the rules and norms of behavior, including the use of language, and to push and

break boundaries between the old and the new, the conventional and the original, and the acceptable and the challenging (p. 1224) the ability to use available evidence appropriately, systematically, and insightfully to inform considered views of cultural, social and linguistic phenomena, to question and problematise received wisdom, and to express views adequately through reasoned responses to situations.”

A multilingual verbal repertoire is fundamentally a great source of creativity and criticality. This phenomenon encompasses conflicts, tussle, difference, and change in various domains, ranging from control of attention and emotions to histories and varied ideologies. The above-stated definitions by Li Wei (2011) cannot be seen in isolation from each other as one needs to be critical to augment boundaries. It is criticality that verbalizes one's creativity or imagination.

1.5 Accessing and Invoking the Notion of Multilingualism

There are many theoretical challenges in measuring and devising a label for the languages in the verbal repertoire of multilingual person (Wang, 2008). In most of the cases, the languages are chronologically positioned, like L1, L2, L3. This positioning is based on the chronological exposure to each language (Hammarberg 2009). This sequential ordering is fine, if an individual has grown up in a monolingual set-up and subsequently got exposure and introduced to a foreign language but in a scenario where a child grows up in an environment where she is exposed to multiples language simultaneously, the sequential ordering needs to be interrogated. In such case, how do we label the language? Which language shall be counted as L1, L2, L3. Hammarberg (2009) points out another interesting issue of intermittent acquisition, where a child is exposed first to a language and then there is an interruption resulting in exposure to a different language and later there is a restoration of exposure to the fist language at a later stage. Hammarberg (2009) further offers critical understanding about proficiency and awareness of a language and at which time that language becomes eligible to be counted in the verbal repertoire of that multilingual person. There are multiple opinions about the proficiency of a language and its inclusion in the repertoire of a person.

Another interesting fact that the tags of L1, L2, L3, L4 could be different based on the researchers direction and orientation of research. For example; L1 is generally referred to the language(s) that was established earlier than three years of age. L2 could refer to language which was a child acquired after that, for many researchers,. That is why the tag of L2 has become a blanket term or hypernym for all the foreign language/s acquired after L1 (Mitchell and Myles 1998). Cook (2002) referred the phrase 'second' as a blanket term while pointing out that the level of proficiency in L2 of numerous languages might vary significantly. Cook (2002) states, "Some of them use the second language as skillfully as a monolingual native speaker, like Nabokov writing whole novels in a second language; some of them can barely ask for a coffee in a restaurant".

Cook was of the view that there was no need to have a granular division between the language acquired after the first language by the speaker and thus he sued and labeled all the language after L1 as L2s.

Hammarberg (2009) advances that researchers committed towards understanding and exploring the additional foreign language acquisition subsequent to the L2 have pointed out that there could be qualitative difference if compared to the L2 acquisition. And thus terms like L3 become imperative. In such scenarios, term such as L3 has been employed as a blanket term to indicate any language acquired after the L2 in the study of trilingualism and multilingualism. (De Angelis 2007).

Carving out the total number of languages for a multilingual speaker has its own challenges. Even terms like bilingual and multilingual are perceived differently by the common masses. Though a person might be a multilingual but she can deliberately deny this labeling thinking that she has no common or equal proficiency over additional languages compared to her first language.

A la Grosjean and Cook, Dewaele, Housen and Wei (2003) have asserted the need of a more granular and a wider explanation of bilingualism that encompass not only the so called perfect speakers of many languages (a myth, probably), or an ambilingual but also a range of "imperfect" and "unsatble" kind of bilingualism, where one language might supersede the other(s).

As there are interfaces occasioned by multiple factors such as proficiency vis-à-vis different language, choices of each language in day to day affair, the association

between the first language and other languages, Thompson (2013) has delineated that operationalizing the notions of bilingualism and multilingualism merit difficult issues and challenges. There are practical challenges when forging strict criteria: “Researchers also face a practical problem when using strict criteria: ‘the pool of potential participants inevitably decreases, especially when dealing with a classroom setting for recruiting purposes” Thompson (2013).

Dewaele and Stavans (2014) devised parameters together with particulars on proficiency in language/s and the recurrence of usage of the range of language. This is highly important as any counting of total number of language must comprise moderately mastered language too.

1.6 Understanding Multicompetence

When zooming on the concept of multi-competence, Cook (1991) as influenced by Chomsky delineated multi-competence in the following words: “the compound state of a mind with two grammars”. Here grammar has been attributed as the I- Language or the overall awareness of the language in the human mind. Later, Cook (2012) redefined it as “the overall system of a mind or a community that uses more than one language”. Cook has contributed colossally in the development of applied or functional linguistics. His studies about second language have provided new paradigms towards the understanding of language acquisition and language usage. In Cook’s research a user of second language (L2) is seen as complete person having knowledge of two languages and there was no particular focus on intensity or the proficiency level in the second language or L2. Additionally, he further extended the understanding of wholistic view pertaining to bilingualism that was propounded by Grosjean (1989), that is to say bilinguals need to be studied in their own right as they are not the sum of two monolinguals. Cook highlighted further that bilinguals possess “a unique and specific linguistic configuration” and thus it rendered a wholistic notion of bilingualism.

Cook’s characterization of multi-competence and the holistic explanation and understanding about bilingualism are primarily cognitive in nature. Cook (2012), explaining multi-competence states “neither particularly a psychological concept, as some have claimed (...), nor particularly sociological”. It rotates and revolves around the mind. Thus Cook (2012) states, “Multi-competence therefore involves the whole

mind of the speaker, not simply their first language (L1) or their second”. Nevertheless, Cook (2002) has incorporated non-linguistic consequences in the explanation of multilingual competence as the acquisition of an additional language changes the mind of the L2 user which goes past the genuine “knowledge of the language” itself. Cook (2002) maintains multilingual competence neither as “a model nor a theory so much as an overall perspective or framework”. This might seem to work well at the first sight, but it has certain fundamental inadequacies as the falsification of a framework is relatively harder and quantifying multi-competence will remain a challenge. This at the best can be called upon to elaborate the consequences of a certain scale of multilingualism vis-à-vis dependant variables. Some of the linguists have discarded Cook’s bilingual “wholistic” reading of bilingualism. In fact, the monoglossic construal of bilingualism (Grosjean 1989; 2008) has been mainly transferred to the past. In recent time, the notion of multi-competence has arrested the eyeballs of researchers.

In recent time, the notion of multi-competence has arrested the eyeballs of researchers especially from applied linguistics but there no great exploration in multicompetence in the realm of psychology. This could be for the reason that boundaries have not got porous between psychology and applied linguistics and multilingualism. Lack of an operational definition of multi-competence could also have created this reluctance among psychologists to take up a concerted research concerning multi-competence.

Multilingual competence is not an unvarying capacity as multilinguals’ linguistic repertoire is always in a flux. A person who possesses a multicomptence has a comprehensive repertoire that has an ability to use the suitable utterances and system as per the occasion and requirement in the context (Franceschini 2011). Numerous scholars have suggested the interconnectedness between multilingualism and multicompetence and that the research in multicomptence can augment the existing understandings about multilingualism and multilingual societies (Franceschini 2011).

Multilingual competence or MC is concerned with the sum of linguistic awareness or knowledge in multilinguals and to recognize how is the multilingual brain equipped with using the multiple languages and also with the question of how do these language work together within the cognitive architecture of humans?

It is significant to note that multi-competence is not characterized by a fixed linguistic capacity owing to the fact that a multilingual speaker's repertoire is in flux.

A person who possesses multi-competence has a comprehensive and non-segregated repertoire and he is equipped with using suitable linguistic utterances and system as per the occasion and requirement in the context (Franceschini 2011). Numerous scholars have suggested the mutuality and association that exists between multilingualism and multicompetence. The research in the realm of multicompetence can augment the existing understandings about multilingualism and societies possessing multiple languages (Franceschini 2011). As such, multilingual competence is concerned with sum of linguistic awareness or knowledge in multilinguals to unravel how is the multilingual brain equipped with using various languages and how do these languages work together in the human brain.

Thought it seems that there is an association between the notion of multicompetence and Chomsky's idea concerning competence and performance, yet the notion of multi-competence has not been erected to counter the notion of competence and performance as proposed by Noam Chomsky. Multi-competence is not addition to the already existing functional aspects of human language. This notion was explored and introduced with a view to present a counter theoretical underpinning for the dominant thought which focused primarily on the monolingual standpoint on 2nd language acquisition and the standards of monolingual speakers were used the parameter to measure the second language acquisition. This concept has arrested the interest of not mere linguists but of professionals, language scientists and teachers. Multi-competence poses an interrogation towards conformists' notions of language, language-learners and language learning with creating a great traction for array of new knowledge on the subject. Pandey (2009) delineates about the linguistic capacity and hybridity. According to him, "impurity and hybridity are intrinsic to linguistic capacity, and thus licensed within the architecture of Universal Grammar".

It is fascinating to note that while the notion of multilingualism was being explored and discussed, the idea of "multicompetence" was simultaneously getting into the realm of research and discussion with specific focus on cognitive linguistics and psycholinguistics concerned with second language acquisition. As discussed earlier, Cook (1992) floated the term "multicompetence" in the conceptualization as: "the compound state of a mind with two grammars" (Cook 1992). Cook, at the nascent

stage of discussion about “multicompetence”, used this term for the sake of convenience (Cook 2002). “Multicompetence”, was used to delineate the “supersystem” as the concept of “interlanguage”, which was used during the 1970s failed to describe competence of L1 and L2. Though it encompassed the competence of learners of second language, it missed the idea of “supersystem”.

The term “multicompetence” became a harbinger of many significant questions such as the followings:

- How can speakers switch from one language to the other from their verbal repertoire?
- How can they switch off one language while they are using the other language?
- How are various phonological and pragmatic systems maintained and utilized?
- Does a bi/multilingual have access to a shared representation with the first language when using the second language, or a variety of separate ones or all these are put together?
- How are various dissimilar parameters controlled in the same speaker, or in the competence of the speaker?

Cook critically contested the idea of an L2 learner as imperfect speaker and someone who can in no way accomplish a native-like command over the language. Competence in second language must not be compared with native language and it should be examined in its own right.

If we try to incorporate the conceptual development of the term “multicompetence”, we can separate five crucial junctures en route to its current understanding and explanation.

At the very inception, the expression “multicompetence” resembled as a polemic against UG, which overlooked the simultaneous co-existence of “two grammars in the same” mind (Cook, 1991). The earliest explanation, “the compound state of a mind with two grammars,” precipitated misapprehension because of the term “grammar”, which was used primarily by Chomsky. To bring more lucidity to the notion, the definition was re-devised and redefined as the following: “knowledge of two languages in one mind” (Cook 2005a). Subsequent to this, a significant change was introduced into the definition with the replacement of the expression

“knowledge” with “coexistence” and the definition was formulated with the following words: “Multicompetence refers to the coexistence of more than one language in the same mind” (Cook 2005b). Here, we can see that there is a shift from using two languages to “more than one language”.

After these definitional stages, there are few more conceptual addition and development. The prospective are augmented and it included the notion of reverse transfer. Reverse transfers concerns with the process of transfer where each language has mutual influence over the other and not from L1 to L2 (Cook, 2003a). Carrying forward the research by Grosjean and Py (1991), Cook (2005) highlighted that “the L1 in the mind of an L2 user was by no means the same as the L1 in the mind of a monolingual native speaker”.

During the 1990s, a new dimension of cognitive approach was introduced to the study and exploration of bi/multilingual competence. Questions such as; how in a multilingual person or a multilingual set-up culture, cognition and thought influence one another. What would be the parameter to study these in the context of bi/multilingualism? Cook with his body of evolving research contributed in widening research in the area of bi/multilingual cognition from early 1990s (Cook 2005).

As the studies on “multicompetence” evolved, it became obvious that the notion of L2 user is positioned at the centre and L2 user is considered as “any person who uses another language than his or her first language (L1), that is to say, the one learnt first as a child” (Cook, 2002)

According to this definition, the term L2 should be taken as a generic term which accounts for all the languages that a speaker has acquired or learnt except the native language or L1.

At this stage of conceptual development of “multicompetence”, it was infused with wider explanation, accounting for a fundamental ability of a person (“potential state of any human mind”; Cook, 2003.). This is the point where “multicompetence” is being discussed in current stage of academic and research deliberations development. This development has ameliorated the number and array of research and the term now incorporated the practical sides of usage of language. Currently, the term “multicompetence” is not seen as a polemic to the generativism as it used to be the case in first phase. The areas of language acquisition and its interfaces has

incorporated new perspectives and research practices in current times. It is highly evident that research into multilingualism call for a comprehensive and meticulous scrutiny and analysis. As times lapses, it will require and should accommodate new perspectives and theories to account for answer to some of the complex and critical inquiries that may rise in future. Some of the significant contributions from Dewaele & Pavlenko (2003), Edwards & Dewaele (2007), and few others have bolstered the concept of “multicompetence”.

1.7 Criticism

In spite of all the theoretical and methodological advances that the concept of “multicompetence” has traversed, yet it has not been free from critical evaluation and interrogation. There are generally two dimensions of criticism of “multicompetence”. The earliest one captures the absence of “social embeddedness”. Here, we must acknowledge that the notion of “multicompetence” germinated from the generativists and psycholinguistic standpoint with some augmentation in later stage. Therefore, some strong traces of mentalist outlook are encountered, following the formal aspects of human language, even if, the centre of the study is acquisition in bi/multilinguals. The introduction of an approach connected with sociolinguistic has rendered a better conceptualization of this concept.

Hall et al (2006) highlight the second lacunae, which is more fundamental. This criticism can be encompassed with the caption “radical usage-based position.” This perceives multilingualism as an inherent distinctiveness of the changeability of language (Franceschini, 2003). According to Hall, in multilinguals, the awareness of language emerges as “the inherent nature of all language knowledge” as all language knowledge is “socially contingent and dynamic”. Thus, the phenomenon multilingualism is just a particular instance of variable use, language snapped off from ideology but attached “psycholinguistically” (Hall et al, 2006). There are mainly three polemical points raised by these authors concerning multicompetence driven research and studies: believing that the knowledge of L1 and L2 are separate and detached system; to draw qualitative distinction between mono-competence and multicompetence; to assume homogenous knowledge across various context and speakers.

Explaining these points, Hall et al (2006) argue that drawing a clear demarcation between monocompetence and multicompetence is complex and intricate. A monolingual too could be highly vigorous and fickle and agile in language use. Thus, in this theoretical sense, a monolingual too can be a multicompetent in his/ her language. Both a monolingual and a multilingual are drawing upon the fundamental attribute of variability of human language. The difference just lies on the fact of the scale of either smaller or wider. Furthermore, dynamisms cannot be attributed only to multilingualism or a multilingual speaker as flexibility and variability is an inherent peculiarity of a monolingual as well.

Hall et al (2006) draw difference between a multilingual and monolingual person in these terms and state the difference is: “not on number of languages, but on amount and diversity of experience and use”. The experts forge a new phrase “multicontextual communicative expert” to refer to individual who are linguistically highly skilled. Basically, they state that, such speakers or individuals possess great experience in an array of domains pertaining to communication and have the ability to react and steer through various communicative contexts.

Here, it is evident that Hall et al subscribe to the usage based view pertaining to the knowledge of language. The linguistic system is depended upon “concrete, historical contexts of language use” (Hall et al, 2006). Thus the difference must be seen in terms of “amount and diversity of experiences and use” and not the number of languages that the speakers know and use. For Halle, a multilingual speaker is someone who possesses a diversified communicative command and acquaintances.

1.8 Examples of multilingual competence Pandey (2018):

- The ability to identify different languages as Lx and Ly
- The ability to speak and understand different languages as Lx and Ly
- Code Mixing

“Isliye abh har schools me ye activities start ho kardiya, because tenth is based on that only, class ten, you have to do lot of debate, declamation, recitation..” (“Therefore, now, in every school, they have started these activities...”)

“To mujhe call karna, ānē ke bād” (“So call me after you’ve arrived”)

“tū mere ko usme bhējnā, phir reply karnā, thīk hai?” (“You send me [an email] on that [email address], and then reply, ok?”)

“agar yahan ke lōg khudī apne ko apni help karnai ke sōcle...” (“if the people from here started to think about helping one another...”)

The dialogues (1) to (4) above (cited in Klingler(2017:46)) represent instances of code-switching in old and young Hindi-English bilinguals' repertoires. “Code is the neutral umbrella term for languages, dialects, styles/registers etc. (Chloros, 2009:11) and code-switching¹ (henceforth CS), in the broadest sense, can be defined as the mixing of two languages in a discourse, as seen above”. Chloros(2009:4) defines CS as “the use of several languages or dialects in the same conversation or sentence by bilingual people”.

Ellipsis

Ellipsis as a part of communication structure is very common in a multi-code situation. Briefly, ellipsis refers to the omission from a clause of one or more constituents (Johnson, 2008). Ellipsis as a linguistic phenomenon has been exhaustively studied from a monolingual perspective so far. It would be interesting to investigate the relation between underlying representation and output forms when the elided sentence is not of the same code as the input.

(a) Speaker 1: mē tūmhē is mēgzin ke front page pər dek^hna chahēṭī hū.

I you this magazine of front page on see want am

I want to see you on the front page of this magazine.

Speaker 2: I want to, yar.

(b) Speaker 1: tūm g^hər cəloge kya?

You home go what

Will you come home?

Speaker 2: No, I won't.

(c) Speaker 1: Sharmaji is out of Delhi.

Speaker 2 : əcha! kəb se?

Ok! When from?

1.9 Scope and Objective

This proposed work is an Endeavour to explore a model of multilingual competence and its pedagogical implications. The three different perspectives on language in a multilingual setting that need investigation can be broadly characterized as the following:²

1. Linguistic Capacity and competence
2. Form and function
3. Language as a characteristic of social practice

Research on bi/multilingualism can be based, in my view, on the following three basic questions (after Cook 1993 for linguistic competence):

1. “What is the nature of grammar in a multilingual speaker’s mind, and how do different grammars coexist and interact?”
2. “How is more than one grammatical system acquired, either simultaneously or sequentially? In what respects does multilingual acquisition differ from monolingual acquisition?”
3. “How is the knowledge of two or more languages used by the same speaker in bi/multilingual interaction?”

These are obviously large theoretical questions. I will take up individual topics that relate to them. I propose to look into phonological features, discourse features and pedagogical implications.

The overall aim of this work is to argue for and explore and present studies that adduce the idea of multilingual competence and study the notion of multilingual competence in relation to phonological features, discourse features, pedagogy and pedagogical implications. There are many crucial works with empirical evidences which suggest that each individual language system functioning hinges upon a possible multilingual competence. Besides, burgeoning theoretical evidences have suggested and kindled a separate profile and realm in the research concerning multilingualism. However, the studies and research in multilingual competence is still largely unexplored from various perspectives. The empirical findings and data are still

embryonic and there is a need to have concerted research effort. In addition to this, an effort to bring together the various research and different literature pertaining to code-switching, code-mixing, loan phonology, multicompetence, multilingual education and various aspects connecting interaction of grammar has been made which has a bearing on the overall notion of multilingual competence.

1.10 Approach, Method and technique

Bi/multilingualism as a research compass triggers some novel debates for linguists, because of the field of linguistics having centered on the notion of monolingual speakers in a linguistically homogenous speech community. Methodology is a cornerstone of all sciences, and the field of bi/multilingualism is no different. There is no specifically defined methodology for research on the phenomenon related to multilingualism. As such, I have used eclectic method, which can be the most appropriate method.

Method of naturalistic observation has been of key importance in my research on all the perspectives that have been explored in this research work.

Actual discourses, communications and dialogues have been recorded and analyzed. Published literature, Hinglish movies, audio-visual media, magazines have been a great source of data for the purpose of this research. One source of such kind of data can be the forum sites of bi/multilingual groups in the internet. The advantage of the forum sites is the data is more informal than in other written source. Such kind of data has not been explored much in research so far.

For looking into the phenomenon of the persistence and the adaptability of features at the level of sound naturalistic observation will be the key method. Variables will be basically: time of acquisition of the languages, age, literacy, sex, social background. The explanation will be based on the theory of distinctive feature. There will be laboratory experiments to find the influence of one language to another vis-à-vis multilingual set up. Apart from naturalistic method questionnaire method will be used to elicit data for emergence of new features (sounds). The questionnaire will consist of words which will be from Hindi having /ə/ sound at three different positions namely word initially, medially and finally. The same pattern of questionnaire will be followed with words from English. The informant will be asked to articulate each word. The same words will be used in some interesting story and the

story will be recorded to find out how does the speaker change certain sound with the persisting sound and how new sound emerge in certain context.

1.10.1 Experimental method

The study performs an experiment to see the characteristic of prosody in three kinds of focus; correction focus, information focus and confirmation focus. The experiment is based on I. “Task Anima elicited with the questionnaire QUIIS of the SFB 632 in Potsdam”

1.10.2 Procedure

The informants are given four images consisting of simple actions (involving an agent and a patient). There is an instruction to the informant to observe the stimuli and remember the details that the figure is presenting with the event captured through the image. When the informant is ready, the stimulus is taken off. There are four questions that the informant is supposed to reply which are concerned with the stimuli. The informants are already instructed to reply in complete sentences.



Ravi (Right)

Priya (Left)

Figure 1.1: In the picture the female is named as Priya (Agent) and the male is named as Ravi (patient)

Two factors are there in this experiment for focus constituent; agent and patient. Priya; agent is the one performing the action and Ravi; patient is the one who experiences the outcome or the consequences of the action by agent. The focus type are new information focus (IS), selective (S) or corrective focus (C). Thus asymmetries of the focus type and/or asymmetries of the focus domain: word order and/or prosodic properties.

Stimulus: Picture of Priya (Agent) hitting Ravi (Patient).

Stimulus: Picture ; “Latha hitting Ravi”

ConditionIS: “In front of the blue sky: Who is hitting (Ravi)?”



Figure 1.2: Stimulus Picture

1.11 Chapterization

1.11.1 Chapter 1- Introduction

This work concerns itself with two conspicuous aspects of multilingualism, namely, the interaction of grammars and multilingual competence. ‘One-system-or-two’ debate (MacSwan, 2014) has loomed large in the research areas related to the acquisition and use of multiple languages. “The phenomenon of a speaker-hearer having more than one code (language) is called bi/multilingualism” (Wardhaugh 2006). A person who has the capability to use multiple languages to communicate either actively (speech and writing) or passively (reading and listening) is considered a multilingual. Indian linguist, D.P. Pattanayak is the avant-garde linguist who significantly emboldened the notion of multilingualism and offered critical view points about the preoccupation of the western academia pertaining to the notion and theoretical development confined to monolingualism and monoglossia.

Pattanayak (1984) sates:

“The dominant monolingual orientation is cultivated in the developed world and consequently two languages are considered a nuisance, three languages uneconomic and many languages absurd. In multilingual countries, many languages are facts of life; any restriction in the choice of language is a nuisance; and one language is not only uneconomic, it is absurd”.

Linguistic, psycholinguistic and sociolinguistic are the three leading line of research enquiry attached to the study of bi/multilingualism (Wei 2008). Each of these lines of enquiry exemplifies its separate themes and methodologies for making an enquiry into the area of bi/multilingualism. Under the linguistic perspective, the most prominent question tries to explore how and whether varies codes correspond among one another in a multilingual person’s mind? Psycholinguistic research concerns itself with the cognitive procedures involving the reception and production of speech in a multilingual set-up which takes leverage from experimental and laboratory methods. The psycholinguistic area of research is not concerned with description and explanation of a multilingual person’s speech.

The sociolinguistic outlook frames questions and examines bi/multilingualism as a subject of social and communicative exercise and ideology. It portrays bi/multilingualism as a phenomenon of social construction and the multilingual speakers as social actors. It is not concerned with looking at bi/multilingualism as from the perspective of mental representation vis-à-vis linguistic awareness. The studies and research in bi/multilingualism have provided substantive evidence and data for multilingual competence (Le Page and Tabourter-Keller, 1985). Multilingual competence could be delineated as the capability and prowess to use multiple languages following the grammatical constraints of all the language involved. This posits a critical question about the traditional view two monolinguals in one person counted as a bilingual.

As the world is metamorphosing into a global village, multilingualism is coming to be accepted as a notion characterizing linguistic communities. People moving from one place to the other, military usurp, colonization, refugees have resulted in a language contact situation which heralded a sociolinguistic setting with various language, varieties with mother-tongues of the respective communities. Various studies adduce the fact that the majority of the countries are gradually

embracing multilingualism. Among 193 nations on the globe, approximately 6,000 languages are being spoken. The figure of multilinguals outnumbers monolingual speakers- an apparent reason why this phenomenon is worth exploring.

1.11.2 Chapter 2 - Review of Literature

This chapter will present an exhaustive study of works by different scholars in the research areas related to my work. I have endeavored to critically present my understanding of the works.

A vast body of work is missing in the area of multilingualism and intersecting areas, yet research on multilingualism can be discerned during the sixteenth-century; and then to Whitney's (1881) investigation of the grammatical architecture of bilingual speech; and subsequently to Cattell's (1887) experimentations, which included comparison between word association and response times of bilinguals and monolinguals. Nonetheless, both the phenomena of bi/multilingualism developed as a crucial focus of systematic study only in the previous century, mainly after the 1970s and it continued afterwards. This chapter includes an exhaustive review of literature in the following areas: Multicompetence, Interaction of Grammar and Sounds in the context of multilingualism.

1.11.3 Chapter 3 - Multilingualism and Educational Equity

In this Chapter, a critical discussion pertaining to the concepts affiliated with multilingualism and education has been discussed. In a country like India, the presence of multilingualism is conflated with various phenomena ranging from culture, development, identity to education. Most of the school in India has a multilingual setting. Multilingualism and multiculturalism is an inherent characteristic of a country like India. An effort to accentuate the significance of multilingualism in achieving and drawing equity has been made, which subsequently contributes to bringing equity in the culturally and linguistically divergent educational system of our country.

Education in India has been discussed from different perspectives with varying degrees of academic and policy pronouncements and enactments. One of the core areas closely intertwined with education is the enormous multilingual mosaic of India, and surprisingly not much attention has been paid to this aspect. India consists of different languages, communities, and ethnic groups, which have an abysmal literacy

rate. The data from the Indian Census (2011) shows that the literacy rate of the Schedule Tribes is 58.96% which is far below than that of the national average of 74.04%.

Year	Schedule Tribe	Total Population	Gap between ST and Others
1961	8.53	28.3	19.77
1971	11.30	34.45	18.15
1981	16.35	43.57	19.88
1991	29.60	52.21	22.61
2001	47.10	64.84	18.28
2011	58.96	74.04	15.07

Table 1.1: Shows the Literacy Rates of Scheduled Tribes and Total Population in India (1961-2011)Source: Census of India, Registrar General of India.

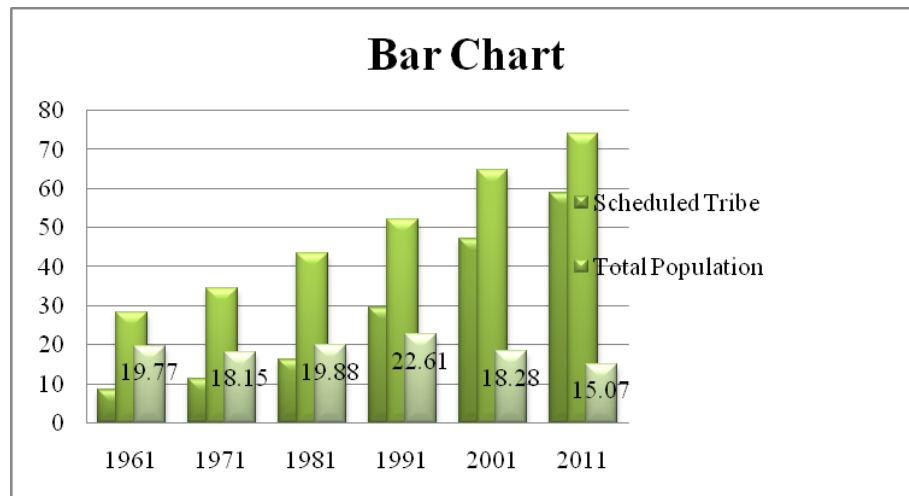


Figure 1.3: Presents the literacy rate among the schedule tribe of India and the total population from the Country

Figure 1.3 presents the literacy rate among the schedule tribe of India and the total population from the Country. It encompasses data from the Year 1961- 2011. It captures the gap between the rate of literacy of the national average and the scheduled tribes. From the consolidated data, we get a picture that the rate of literacy among the STs in comparison to the national average is abysmal.

This situation results from various factors, policy lapses, and the nebulosity of a state of the art of one size fits all and keeps the issues pertaining to the children's language at the back burner.

1.11.4 Chapter 4 - Multilingualism and Discourse

Our interaction and communication building blocks carry a constellation of languages that range from our mother tongue and other languages that we might acquire necessitated by virtue of being the language of employment, power, and prestige. Current times show a remarkable spike in the number of multilingual across the globe. Multilingualism that seemed to be an aberration earlier is gradually being accepted as a norm even though many countries seem to foster monolingualism (cf. e.g., Weinreich 1963; Fodor & Hagège 1983–1994), (Kalb 1999), (Coulmas & Watanabe 2001). The globe, nowadays, is encountering a tangible inclination towards multilingual communication at global as well as local levels. This situation has been conditioned by a considerable migration and intervention of information technology, traveling inter alia. According to House (2003), there are two ways to maneuver through this situation: upholding the espousal of a lingua franca or promoting and enabling multilingual communication, which nurtures mutual understanding. The rapid migration taking place, sprinting technological advancements in communication, groups, and individuals, societies, and communities entirely driven by globalization belonging to different linguistic groups has spawned a rapid and high level of multilingual, multicultural, and cross-cultural communications. The phenomenon of people belonging to different languages and cultures trying to establish communication has permeated through most countries. This triggers interest among linguists, especially those interested in languages' structure in a multilingual setup and multilingual communication.

1.11.5 Chapter 5- Locating Phonological features in a multilingual set-up

In this chapter, an attempt to discuss in detail, the phonological processes and researches in the context of multilingualism has been made. Through discussions and reflection on the subject, it has been tried to explore different works done so far in the areas and how do these works bring out the significant contributions in the area of multilingual competence.

The repertoire of a multilingual person manifests many linguistic features, which are absent in monolinguals. As the phenomenon of multilingualism has gained

momentum in recent times, researches from different perspectives has generated interest among linguists and researchers working in different intersecting areas. In recent times, phonologists have shown keen interest in as how the nativization of loan words takes place in the repertoire of a multilingual.

The influence of multilingualism cascades from socio-psychological to structural aspects. Many languages borrow a plethora of words from other languages which is induced by contact and convergence and with the advent of time; these borrowed words become integrated with the borrowing language displaying some phonological deviations from the origin of the words. Loan phonology bolsters our knowledge about the phonological grammar.

1.11.6 Chapter 6- Conclusion and implications

The findings and other research questions related to my work has been presented. The pedagogical implications of research and other benefits of the same have been elaborated.

Chapter 2

Review of Literature

2.1 Introduction

A vast body of work is missing in the area of multilingualism and its intersecting areas, yet research on multilingualism can be found during the sixteenth-century; and then to Whitney's (1881) investigation of the grammatical architecture of bilingual speech; and subsequently to Caattell's (1887) experimentations, which included comparison between word association and response times of bilinguals and monolinguals. Nonetheless, both the phenomena of bi/multilingualism developed as a crucial focus of systematic study only in the previous century, mainly after the 1970s and it continued afterwards.

Traditionally, multilingualism and multilinguals have been overlooked in the overall pedagogic contexts as it is the monoglossic parameter and model which have dominated educational milieu (García and Torres-Guevara 2010). Earlier studies in bilingualism or multilingualism used to view each language separately and used to measure and compare them differently as well (Hamers and Blanc 2000). An evaluation of multicompetence dominated by the monolingual standpoint tries to “account for ultimate native-like proficiency in all the languages” and “assume that the multilingual is the sum of the native-like monolingual competence in each language” (Stavans and Hoffmann 2015). Herdina and Jessner (2002) demonstrate that “as long as bilinguals are measured according to monolingual criteria, they appear to be greatly disadvantaged both in linguistic and cognitive terms”.

Whilst methodologies formed for monolinguals are utilized to evaluate multilingual competence, it is bound to expect responses in the target language ignoring additional language from the repertoire. Grosjean (1985) states that, “The measures used to assess bilinguals are usually the same used to assess monolinguals.” It is thus evident that if assessment is done using monolingual methods, it sidelines the various requirements of that bilinguals might have for two language. It will completely ignore the fact that bilinguals might use different language to meet a different purpose, with a different group of person of persons and of course, in a different context as well (Grosjean 1989).

In current research trends in multilingualism, language acquisition and bilingualism, there has been a call for having more holistic view pertaining to language (Block 2003; Lafford 2007). These changing trends have spurred construction of new theories, critical focus on the environment in which the language has been learnt or acquired and the social context (Block 2003). Lafford (2007) holds that there is a need to centralize strategies in communication, which muster resources from all the language rather than conquering a particular language. A multilingual speaker's communication is a mosaic and the interaction among the languages is a multifarious and multifrontal, where each language influences the other language and subsequently affected or governed by other languages (Herdina and Jessner 2002). Therefore, multilingual users develop required competence and not the same or equal competence in each language and thus learn to steer the relationship and use of these languages.

The linguistic practices of a monolingual are not akin to the linguistic practices of multilinguals. A multilingual person "has a specific linguistic configuration, characterized by the constant interaction and coexistence of the two languages involved" (Herdina and Jessner, 2002). According to Cenoz and Genesee (1998), multilingual persons' repertoire is wider than that of a monolingual, though both might encounter the same communicative circumstances. Besides, a multilingual person is privileged to use multiple languages in communication which encompasses various domains and communicative terrains. They can utilize all the linguistic reserve by using one or all the languages during the same string of conversation or the same utterance. Gracia and Wei (2014) refer this ability of multilingual switching or shuttling from one language to other as Translanguaging. According to Gracia and Wei (2014), translanguaging is portrayed "as an approach to the use of language that considers the language practices of multilinguals as one unified linguistic repertoire rather than as two autonomous, separate language systems". Linguistic repertoire is used in totality as occasioned by the context and communicative wants, when a speaker tranlanguages (Otheguy et al. 2015).

2.2 Multilingual Competence

It is primarily research on "code-mixing and code-switching" which has been dominant in the study of bi/multilingualism.

The phenomenon of code-switching dates back to the time when people from different language groups started coming in contact with different communities speaking their distinct language/s. This resulted in a language contact situation and gradually led to bi/multilingualism. In the 14th and 15th centuries, code-switching between Hebrew and Catalan was researched by Argenter (2001). Code-switching induced by the contact between Spanish in New Mexico and English was described by Espinoza (1971), which garnered interest for a more formal, structured and academic study in this area.

The word “code-switching” denotes here “the alternate use of two or more languages within the same utterance or during the same conversation” (Hoffman 1991).

“Code-switching pertains to the simultaneous or interchangeable use of two or more languages” (Valdes, 1977). The act of bilingual speech infers to certain amount of competence present in the respective languages despite incomplete fluency in the multilingual repertoire. According to Gysels (1992), code-switching is driven by two of these factors: to cement a conceptual or linguistic gap and cater to the needs of multiple communicative purposes.

Conventionally, code-switching was viewed and hitherto considered by good deal of people as an aberration and an unsystematic practice that can be explicated by interference. As more and more descriptive and theoretical researches were conducted, code-switching is depicted as a behavior that is governed by rules and is a communicative strategy (Corder, 1981).

With more and more research pouring into the study of this phenomenon, we see a new view that this is a completely systematic phenomenon and can be described scientifically. However, there are some researchers with some apprehensions about this notion too. The study of language processing in mixed language mode conducted by Grosjean and Soares (1986), which concerned with French-English and Portuguese-English, discovered that a bi/multilingual is enabled to activate both. Hence mixing of code, or disabling one and enabling the other are more imperative in that scenario. Nevertheless, there is no complete switching-off of one language when the other language is more discernable in the situation. Grosjean and Soares have

proposed a base or matrix-language. In terms of the theory of linguistic processing, the interaction procedure is still vague.

Along with Obler and Albert (1978), Grosjean and Soares (1986) proposed a common device to observe and monitor language that is supple, fast, and programmed, and they approved Paradis (1980) that bilinguals possess lexicon from two languages and both of these languages are linked to a single conceptual store. This device puts into use all the consolidated information to show as promptly as viable, the language being use:

- Prosodic information
- Syntactic and semantic rules
- understanding of the topic
- knowledge of the speaker
- pragmatic aspect
- code-switching restrictions and borrowing of codes from the other language”

This entails that the processors at the higher level are passing on responses to the device. This device is constantly on the go. This is precipitated in a situation of bilingual speech event and where there are wider chances of language mixing.

Soares and Grosjean (1984) elaborate and describe the nuances of psycholinguistic tests, which is one of the tests to study and review the processing of language mixing. Despite the complex and convoluted process and strategies involved in mixed language communication, his test endeavors to explicate how communication takes place so swiftly and adds to the gamut of discourse in a better way.

Sankoff and Poplack (1980) mention a rule or “equivalence constraint”, according to which bi/multilingual individuals in their utterances sometimes use structures (elements/constituents) from a specific language at one given point and from other language/s at different point(s), as long as the languages have common set-up of these constituents.

Sridhar and Sridhar (1980) present a critical linguistic bilingual discourse and suggest “guest and host” language terminology and try to elucidate speech that is replete with code-switching. The researchers state that code-switching within a sentence is when guest elements, which possess internal composition, take place

within the host language sentence following the location rubrics of the host language, which is also known as the matrix language.

Woolford (1983) explains code switched utterances, stemming out of a combination from rules of phrase structure from two languages. There can be free mix-up of these rules of phrase structure between the two languages, when there is a construction of the tree structure of the code-switched utterances, she argues.

According to Chana (1984), the occurrence of code-switching takes place in the case of a speech exchange when there exists proximity between the two languages' grammatical systems and their sub-systems. The pieces are knotted in concert prosodically as well as semantically and syntactically corresponding to those that join passages in a single language. Lipski (1982) delineates a "bilingual grammar in code-switching within a sentence". He touches upon three types of text: Type 1 concerns with monolingual text which has a few words from Spanish with English literature and conversely whereas type 2 text is bilingual with sentences from dual languages having alternations showing at phrase or sentence level. Type 3 text is also bilingual having code-switching within sentences. He came with the idea of a bilingual grammar which is designed by a mix of two languages. He states that "code-switching renders pieces of evidence in two of the interconnected planes: linguistic and psychological". The psychological plane comprises contextual variables that allow switches, whereas the linguistic plane contains factors that buttress the switch and what form or structure that the utterance takes after switching. As a matter of fact, essential communicative and cognitive functions are served by code-switching. Still, in many societies, language mixing or code-switching is attached to social stigma.

Chana (1984) explored a few listeners' evaluative reaction about a speech code-switched between Punjabi and English by a speaker who also spoke only Punjabi and only English. These listeners considered the speaker less intelligent, less fluent and even less expressive when he code-switched the language forms, rather than when he used only one form-either completely Punjabi or completely English.

The special issue on code-switching in the "*Journal of Multilingualism and Multicultural Development*" delves into the areas such as the usage compass of code-switching in various contexts with a different language, social, discourse, a linguistic phenomenon as the primary drive behind the code-switching, the notion of borrowing

in comparison with code-switching, the system and logical description and explanation of the patterns of code-switching and the social stereotypes that the notion of language mixing and code-switching still evoke.

It is essential to differentiate between the notions of code-switching and borrowing. Muysken (1995) delineates borrowing as “the incorporation of lexical elements from one language in the lexicon of another language.”

Embracing Chomsky's (1995) Minimalist approach to Syntax, MacSwan (2001) states that, “nothing constrains code-switching apart from the requirements of the mixed grammars.” This would mean that the distinction between particular languages for linguistic theory is ignored, and the requirements specific to languages would be denoted in morphology as a parametric variation.

A conflict that is based on language-specified requirement is just a conflict of lexical features as minimalism proposes. The computational scheme picks items from one or the other lexicon. Else it can choose items from both the available lexicons, and then we will have a sample of code-switching. MacSwan presents an account in terms of conflicts in the requirements induced by the lexicons, and not confined to code-switching specific apparatuses.

2.3 Sounds and the impact induced by mixed languages

The montage of insights that we have got from the studies covered in previous sections stems from the experimental methods used in understanding the phenomena of multi/bilingualism by studying the processing of multiple languages or individual languages or comparing the multilingual to corresponding monolinguals. Multilingualism exhibits fundamental phenomena like code-mixing, code-switching inter-alia. Code-mixing is a necessary consequence of multilingualism, and it is a part of the norm in almost every stable bi/multilingual group (Poplack, 1980). Subsequently, much research has germinated from the idea of interaction among multiple languages and the consequences that they induce at different linguistic levels. Below some of the works are being discussed.

The seminal work by Grosjean and Miller (1994) encompassed the intersection between code-switching and phonetics. With 5 French-English bilinguals, they conducted two experiments. VOT of three sounds /p,t,k/, all voiceless plosives were tested in onset space by inserting word with the voiceless plosives of the guest

languages (English) into the carrier phrase of the matrix language. No phonetic movement from the base language to the guest language could be evaluated from the experiment. They summed up that the base language is not influenced by the matrix language. There is a complete transition at the phonetic level.

There are many interesting facts and research outcomes pertaining to the area of code-switching at the level of phonetics. Many of the studies have been debunked, and some of them have been critically evaluated and re-evaluated. A single guest's presence in the matrix language's carrier phrase may not necessarily be a case of code-switching adequately but may be an instance of loanword or an item receiving a contrastive focus. Nevertheless, here one point is critical to state that since the guest words were proper nouns and homonyms in both the base and the matrix language, the participants might have hyper-articulated the guest word to mark the difference from the base language homonym Grosjean & Miller's (1994). Consequently, it did not beckon phonetic transfer between the two languages. Apart from this, Antoniou et al. (2011) claimed that the study consisted of participants who belonged to different age groups when they had acquired their second language (English). There is also no mention of L1 dominance over L2. In the speech production of L2, especially concerning the L1 influence on L2 production, the point of age of L2 acquisition and the language dominance matter significantly (Flege et al., 2003). The interaction at the phonetic level could easily be missed if these are not taken care of in the study's methodological aspect.

Bullock et al. (2006) tried to adduce the work by Grosjean & Miller's (1994) through their experimental work that explored phonetic interactions between bilingual speakers.

Spanish dominant (15 participants) and English dominant (10 participants) were compared in a study by Bullock et al. (2006), who had a mismatch in L2 proficiency. The study aimed to find whether the asymmetry in bilinguals' behavior is due to dominant L1 phonetic categories, which have become stable, or there are other factors involved. The outcomes showed that both the groups had asymmetry, but the asymmetry was in the same direction. Regardless of the base language, there was a convergence towards more Spanish-like VOTs in the code-switching between the two languages-English and Spanish, reason being the inherent difference between the two languages. English has the VOT range ~ 30-120ms (Lisker & Abramson, 1964) with a

long-lag compared to Spanish (VOT range ~ 0-30ms, (Lisker & Abramson, 1964). This means that a broader range of VOT values for voiceless stops are available in English, whereas a higher gestural precision must maintain the short lag Spanish stops. Therefore, it is evident that there is a scope for convergence in English, which is there not in Spanish. Furthermore, the work shows that the higher proficiency of L1 English speakers in their L2 Spanish resulted in over-control of their Spanish VOT and influence English in the process of Code-switching. Subsequently, the researchers have debunked the gestural drift theory, precursor-guest language effect, and bilingual mode and have established that the phonetic production of bilinguals is directly influenced by code-switching Grosjean & Miller (1994).

Comparable studies were presented by Bullock & Toribio (2009). Their study involved three groups consisting of L1 Spanish-late L2 English, L1 English-late L2 Spanish, and early Spanish-English bilinguals to examine the phonetic production during code-switching. They were interested in finding out indication of cross-linguistic influence with a refined nature in bilingual code-switching at the sentence level. This influence might be bi-directional and not uni-directional; they hypothesized. Previous studies of psycholinguistic language switching have corroborated the same. For the voiceless obstruents /p,k,k/ across languages, bilinguals detain separate phonological categories. However, code-switching induces a low-level phonetic interaction in bilingual production.

Furthermore, in a bilingual, the direction of influence is not unvarying or pre-programmed. The L1 Spanish group indicated interfering, L1 -> L2, the L1 English group, displayed hypercorrection, L2 -> L1 (when switching into Spanish) as well as divergence L1<-->L2 (when switching into English). In both groups, the value of English got inclined towards Spanish values but did not.

Amalgamate with Spanish values, regardless of the L1 of the participants. The same has been re-explained in terms of the linguistic internal difference between Spanish and English.. English has a VOT range ~ 30-120ms (Lisker & Abramson, 1964) with a long-lag compared to Spanish (VOT range ~ 0-30ms, (Lisker & Abramson, 1964) signifying that a lot more accuracy is imperative to maintain short lag Spanish stops. Thus, it results in English having more scope for convergence towards Spanish and not vice-versa.

Regarding the linguistic external differences, the researchers found that in the case of L1 Spanish groups, English proficiency was reasonably low in contrast and comparison with other groups. This could be reasoned as to why the speakers could not regulate their English VOT during code-switching and experienced interference from Spanish. The bilinguals, as English their L1, were also Spanish language tutors. That could be the reason that they could produce Spanish accented English as they had the ability to over-control their Spanish VOT. There was a phonetic convergence among the early bilingual group, like each language merged towards the other. The researchers further claim that there are these early bilinguals who have the phonetic capacity to unite toward English-like VOT in Spanish, and this convergence results from their equal adeptness in both the languages. Therefore, through this study, the researchers repudiate that there is a matrix language effect on guest language. They also sum-up that the first language is not watertight to influence from the second language.

The process of code-switching renders insight into the mixed language processing and is a sensitive test about multiple language interaction Antoniou et al. (2011). Taking inputs from their previous work, Antoniou et al.(2010), the researchers conducted a second study that endeavored to evaluate the Greek-English bilinguals' VOT of voiced and voiceless stops in code-switching. Same 16 bilinguals constituted the part of informants as in their first study. These 16 bilinguals were dominant in their English (L2) and produced Greek and English stops in the unilingual mode compared to Greek and English stops of monolinguals of each respective language. The study examined the plosives in the initial position of the target syllable implanted in a carrier phrase of the differing language. In the current study, half of the participants from the same group who had produced Greek in the unilingual mode in their previous study were asked to produce Greek target syllables in English carrier phrases in the current study. Other eight participants had produced English in the unilingual mode in their previous study, now produced English target syllables in Greek carrier phrases in this study. There was a distinct variance between the VOT of Greek and English stops. However, Flege, Mackay & Piske (2002) presented an asymmetric influence of the non-dominant L1 (Greek) on their dominant L2 (English) when switching into English only.

The prime claim that these researchers espoused was that code-switching provides a detailed and profound test of interaction among languages. They have presented two accounts and descriptions for the same. Firstly, they offered that each language's phonetic categories are perceived alike or connected at some abstract level. Added to this, they proposed that the initial bilinguals of their research, even though they acquire L2 early on, hitherto establish categories that are connected to their L1 categories and that their L1 leaves an influence on their L2 despite years of absorption in the second language. This seems to be substantially believable; for it exemplifies that the bilinguals possess a conjoint phonological space (Flege, 1995) where the phonemes might become evident as distinct phonetic variants in the languages of a bilingual.

Furthermore, because of the consistent use of English in everyday communication, these bilinguals can be expected to use Greek words in English sentences and not vice versa. Thus, after extended exposure to code-switching, the influence of English on Greek becomes restricted. Conversely, this seems implausible. As the speakers had wider exposure and immersion in the English language, one language's influence over the other should be from English to Greek.

Several pieces of research in the realm of phonetic interaction among languages have steered the language mode of bilinguals by evaluating them in the monolingual mode as well as bilingual modes (Grosjean & Miller, 1994; Bullock et al., 2006; Bullock & Toribio, 2009a; Antoniou et al., 2011; Olson, 2012, 2016; Muldner et al., 2017). Contrary to this, Olson (2013) has differentiated between language mode and language switching. He states that language-switching paradigms experience language-switches that are free from conversational constraints, effects of interlocutors, pre-modulation, or innovative planning of productions and thus provide a perfect picture of the phonetic transfer. Olson (2013) piloted an experiment on language switching employing the cued picture naming technique among twenty bilinguals with Spanish-English in their verbal repertoire. Out of these twenty participants, ten had Spanish as their L1, and ten were English dominant speakers. He evaluated the VOT of voiceless plosive /k/ in English as well as Spanish. The participants have presented six target pictures that are assorted with filler pictures. Mono or disyllabic names with the target token /k/ in the initial place were there in these pictures (three with English words and three with Spanish words). There were

three different sessions prepared for the experiment consisting of monolingual English (95% English tokens, 5% Spanish), monolingual Spanish (5% English tokens, 95% Spanish), and bilingual session (50% English tokens, 50% Spanish).

In his study Olson (2013) defined that in both the monolinguals settings, VOT in the L1 of the speakers was affected by L2 when switching into the L1, the L1 dominant speakers displayed VOT values that shifted towards their L2. Though, the L2 of both the groups did not show any effect of the L1. No age group was affected by the switching of the language in the bilingual context. For example, there was no difference between VOT's of monolingual or switched tokens. These outcomes have been delineated in the “Inhibitory Control Model” (Green, 1986, 1998; Kroll & Stewart, 1994). Inhibitory Control Model characterizes that L1 being the sturdier language necessitates superior levels of inhibition than the L2 and this consequences in the more significant switch costs incurred in the L1. He suggests that in addition to the more incredible difficulty of inhibiting the L1, the recovery of L1 while switching into it is even more stringent and thus conduces to transfer from L2 while switching. However, due to slight inhibition needed in the L2 system, while switching to the L2, it is impeccable, without any bleeding of L1 onto the L2. Therefore, there is asymmetrical phonetic transfer induced by inhibition at the phonetic level. With respect to the variance between the two contexts, the writer or the researcher recommends a gradient view of inhibition. In the context of monolingualism, the degree of inhibition of the languages relies upon the language context, which is not balanced at all. In contrast, both languages share an equal ratio in the bilingual context, and therefore both are partially inhibited, resulting in limited transfer. The author sums up by putting forward a tentative phonetic-level Inhibitory Control Model, urging for more volume of research to corroborate his findings.

Without applying the code-switching data to examine the interaction between bilinguals' languages, Simonet (2014) presents his research, which is akin to Olson (2013). Simonet uses a mix of Catalan and Spanish sentences and provides his participants with the auditory stimulus in the bilingual session and only Catalan sentences in the unilingual session. He made a comparison between Catalan vowels with Spanish mid-vowels /o/. Thirty early Catalan-Spanish bilingual females were recorded for the data and were subsequently categorized into three groups. Among these, the first group had bilinguals who were Catalan dominant, moderately Spanish

dominants constituted the second group, and the third group had strongly Spanish dominant. The most significant outcome of this research was raising both Catalan vowels in the bilingual session. That is to say, the Catalan vowels /o/ and /ɔ/ displayed lesser F1 frequencies, which were akin to Spanish vowel /o/, in the bilingual settings. He claims “that [this] assimilation (or acoustic attraction) of the Catalan mid-back vowels to Spanish [o] is in part due to performance-based, circumstantial interference processes.” (p. 35). He observes that these interlingual interactions (phonetic) are not there owing to long-term phonological representations (Competence) but rather occur in speech processing (Performance).

If group variance is to be stated, a strong acoustic dissimilarity between the two Catalan vowels was retained. Nevertheless, the scale of the strong acoustic distinction of the vowels varied across the groups. The Catalan dominant group manifested a more enormous acoustic difference than the Spanish dominant group. The strongly Spanish dominant group displayed an even smaller acoustic difference compared to the moderately Spanish dominant groups. Subsequently, domination in Spanish (L2) influences the pronunciation of the Catalan (L1) contrast subject to the degree of Spanish domination, i.e., the effect is a gradient in nature. A la the work of L1 (Antoniou et al., 2011; Olson, 2013), this research presents the influence of L2 on L1.

Nonetheless, it is equivocal to state if the influence is uni-directional or bi-directional in nature as there is no evidence or data in the research from Spanish unilingual mode. It would be worth exploring for these bilinguals to find if the Spanish bilingual values are different from or akin to Spanish unilingual values for these bilinguals. This can render a better understanding of the L1-L2 interaction. As such, the phonetic interaction that is found between the languages can be credited to the presence of a bilingual language context and not to code-switching, which is a local point of dual activation (Olson, 2016).

The studies by Simonet (2014) and Olson (2013) and the study as mentioned above are not exactly similar as the studies by Simonet (2014), and Olson (2013) keep bilingualism as the core background without using code-switching as the tool of investigation to study the interaction among languages. Simonet offered auditory stimulus, whereas Olson presented visual stimulus among their participants. Interestingly, both these studies come up with differing outcomes from the bilingual

session as Olson (2013) presents no interaction, whereas Simonet (2014) finds convincing evidence of one language's mutual influence on the other in a bilingual set-up.

Despite the short period of the recording session, when the participants were exposed to both Catalan and Spanish accented auditory input, was enough to prompt influence of Spanish over Catalan vowels (for Spanish dominant groups) is a definite clue of the fleeting or temporary interference which is likely to be performance-based (as hypothesized by Simonet 2014 himself). This result mimics the code-switching paradigm where bilinguals are exposed to two languages, which is part of their verbal repertoire with the same chunk of utterance or conversation, which attracts phonetic interaction. Simonet (2014) though not through data from code-switching, adduces, and corroborates like Antoniou et al. (2011), the interaction between L1 and L2.

It was Olson (2016) who significantly extended the work on language switching and mode. He studied the consequences of code-switching and the interaction among bilingual language modes on the VOT of 14 Spanish-English late bilinguals. During the oral production task, groups of seven English dominant and six Spanish dominant bilinguals participated. They were evaluated in 3 sessions, monolingual non-switched, monolingual code-switched, and bilingual, code-switched. There were monolingual sentences in monolingual non-switched session. Insertional code-switching was characterized by a monolingual code-switched session where one word from the guest language was implanted into the base language, whereas there was an equal amount of both the languages in bilingual code-switched session.

Pertaining to code-switching, the researcher presents phonetic transfer between tokens of code-switched and non-code-switched, showing un-identical results between the two groups. There was a uni-directional transfer, short to long lag, i.e., Spanish (L2) to English (L1) in the English-dominated groups. Previous work Bullock et al. l. (2006) has evidenced the same findings that long lag languages permit scope for more phonetic transfer. There is a bi-directional transfer in the case of Spanish dominant speakers. The same has been elucidated consequently by 'phonetic latitude' provided by the shortest Spanish VOT's in non-switched contexts, which approved convergence, and thus, the VOT of both the languages congregated towards each other. The impression of bilingual language mode and code-switching on VOT, there is a study that presents a lack of cumulative effect. There was a hypothesis by

the researcher that code-switching in a bilingual mode would produce a higher level of phonetic transfer as compared to code-switching in a monolingual mode. Nonetheless, the work did present any such outcome. There is an argument by the researcher that the dual activation of languages during code-switching characterizes the maximal phonetic interaction that can take place. The values of VOT are already at the edge in terms of English-like or Spanish-like. Hence, there is additional scope for an additive consequence without the token being non-normative.

By this work, Olson is able to present and evidence the L1-L2 phonetic interaction among the bilinguals. Apart from presenting data for the transfer of phonetic influence among the languages, this study shows the limitations of the transfer as well in bilinguals' speech. These results uncover many research areas across different languages, different kinds of linguistic interaction among bi/multilingual, phonetic features transcending VOT, and in naturalistic settings despite its limitations.

A significant amount of research pertaining to the interaction between code-switching and phonetics has employed stimuli that do not resemble natural conversational code-switching. Studies have used mostly controlled stimuli (utterances), and these utterances signify insertional code-switching or alternational code-switching, which the participants read out during the recording session(s). Exceptions to this are Khattab (2002, 2009), Piccinini & Arvaniti(2015), and Balukas & Koops(2015), who garnered semi-spontaneous data by conducting the study in a naturalistic setting and their results echo the outcomes of the experimental laboratory states.

Through a naturalistic study, Khattab offered three Arabic English bilingual children's phonetic productions (2002, 2009). These children belonged to Lebanese parents and were born and raised in the UK. The children were English dominant speakers with exposure to Arab at home, whereas the parents were native Arabic speakers. The recordings of the children's speech were done in a variety of settings like free play with monolingual English friends, and during story-telling and picture naming sessions in English with the researcher. Similar tasks were recorded with the children's mothers too. The findings suggested that these children code-switched quite often while interacting with their parents (Arabic dominant) and that their English (L2) productions during code-switching displayed phonetic features corresponding to

Arabic (L1). However, these Arabic features were not present when the same group of children spoke in an English monolingual environment. This is equivocal data of L1 influencing L2. But interestingly, more than that, it signifies the nuanced phonetic control that these children put to use to steer and navigate their productions according to the linguistic milieu and setting.

Apart from Khattab (2002, 2009), Piccinini & Arvaniti (2015) used a naturalistic setting in contrast with the fixed laboratory settings to the study-related and compared monolingual and code-switched contexts of early Spanish-English bilinguals, who were predominant in their English though it was their L2. There were two tasks; a conversation task and a puzzle task, and 14 bilinguals were recorded. The conversation task had pairs of familiar participants, and they conversed with one another on a given topic and pictures, while doing four different simple jigsaw puzzles independently. Both these assigned tasks do not create any fetter on the choices of language/s or turn-taking. The puzzle task intended to augment the participants' cognitive burden while they were using both their languages. The examination unit was VOT of voiceless obstruents /p t k/ in monolingual and code-switched illustrations from the interaction or the conversation from both tasks.

The significant conclusion drawn from this work is that is “... at least among early bilinguals, code-switching effects reported in earlier studies are not an experimental artifact but apply in spontaneous speech as well.” (p. 132). This has been bolstered by the fact that this study includes bilinguals who are always in bilingual mode. Both the language of their verbal repertoire is always active (mentally) and in use, which specifies that code-switching in such a mode does leave an influence the phonetic production. This concurrently corroborates the results of previous work that the bilingual detain different phonetic grouping for Spanish and English. Nevertheless, in both these tasks, code-switching led to shorter VOT values for both Spanish and English. As stated and proposed in previous studies, the researchers had anticipated this result arguing that there exists L1 influence on L2 even when L2 is dominant (Bullock et al., 2006; Antoniou et al., 2011; Olson, 2013). This was for English. However, for Spanish, they failed in their hypothesis. Due to the influence of English instead of lengthening, the values of the Spanish language were shorter. They have explained these results in the context of monolingual Spanish VOT values, which were already relatively long and so were less likely to lengthen further

and thus diverged to maintain the contrast. Apart from this explanation, the researchers state that there might be hyper articulation as these bilinguals were dominant in English while switching to Spanish and inflicting an effect on the VOT values. There were effects for English only concerning cognitive load and manipulation. The researchers had anticipated that the Code-switched VOT values for English to shorten further compared to the conversation task. They ascribe this to a reduction in speaking rate because of the diversion from the puzzle.

Nevertheless, they have acknowledged not having a lucid description and account. There was no cognitive load manipulation for Spanish, pointing out the same reason that Spanish monolingual VOT's were long enough not to be able to accommodate lengthening further lengthening. However, they discerned that the alternations between monolingual token and code-switching were existent and augmented in the puzzle task, ascribing this to the bilingual language mode, where all the conversations happened.

The study by Piccinini & Arvaniti (2015) renders data in support of code-switching as a significant test to unravel and understand the L1-L2 interaction. Their study adds new methodological tools as they have observed and studied the look into monolingual and code-switched instances in the same set up of bilingual's conversation rather than comparing monolingual sentences with code-switched sentences. This provides compelling data and evidence of phonetic interaction in a naturalistic setting representing that bilinguals engage different strategies to keep their two languages separately during speech processing.

Balukas & Koops (2015) examined naturalistic speech of Spanish-English initial sequential bilinguals. The study found that tokens of English were brought out with considerably shorter VOT during code-switching than the monolingual English tokens. This showed an influence of Spanish (L1) on English (L2). Nonetheless, Spanish production did not merit any effect of code-switching, while the language supremacy of the members is not clear, and the age of the participants varied substantially, this study illuminates L1 influence on L2.

Studies by Gu, Lee & Ching (2008), Olson (2012), and Olson (2016) broadens the paradigm on code-switching. These studies have examined the suprasegmental level in code-switched in place of the segmental level, like in the studies as mentioned

earlier. These studies cover research on interlanguage interaction at the suprasegmental level, buttressing outcomes from the segmental level.

One of the primary studies to examine code-mixing effects at the suprasegmental level is Gu, Lee & Ching (2008). The most significant aspect of their studies is selecting the phonological level and the language pair outlines, which make this study a novel study in its own right. Two linguistically distinct languages were examined from the suprasegmental perspective, one being a stress-timed language (English) and the other being a tonal language (Hongkong (HK) Cantonese). They steered a study to explore the rhythmic pattern and F0 of English words code-mixed in HK Cantonese carrier phrases. They recorded four late HK Cantonese-English bilinguals. The results indicated L1 interference on L2. English's rhythmic pattern got influenced by the rhythmic pattern of HK Cantonese, which is a syllabled time, whereas English is a stress-timed language.

Furthermore, the F0 of the English rooted words was elevated and the difference in the F0 outline of the embedded word was realized only in the word final syllable. The F0 contour curved flat for the stressed English syllables in word-final position and not an F0 contour with a falling end as it happens in monolingual English, while for the post-tonic unstressed syllable, the F0 contour falls more precipitously compared to F0 contour of English monolingual sentences. The prosody of HK Cantonese, which is the matrix language, did not exhibit any influence of code-mixing. There is an unequal effect in the interaction between these two languages of the late bilinguals. The guest language's supersegmental features are brought closer to the prosody of the matrix language by the L1's effect on L2 at the suprasegmental level.

Consequently, Olson (2012) endeavored to explain the study of phonetics of code-switching at the prosodic level. He took into account six early Spanish-English bilinguals' monolingual and code-switched utterances in his study. Pitch height and duration of 3 point vowels /I, a, u/ in monolingual Spanish, monolingual English, and code-switched English (Spanish > English) context constituted the study at the suprasegmental level. The research showed that it required a higher pitch height and a longer duration for the production of code-switched tokens than for non-code-switched ones. Olsen found from by-speaker results that speakers hyper-articulated code-switched token either through increased pitch or duration or a combination of

both. The results were elucidated with reference to “Hyper- and Hypo-articulation theory” (H&H) and local lexical expectedness. Lindblom (1990) states the following, “Within Hyper- and Hypo-articulation... theory (Lindblom, 1990), speakers constantly adjust their production effort on the basis of constraints in the communicative situation. These constraints can consist of difficulties in the environment (e.g. low signal-to-noise ratio, hearing impairment) or processing demands (e.g., low word frequency, low word predictability). In situations in which communicative constraints are significant, speakers tend to hyper-articulate..... Conversely, when faced with lower levels of communicative constraints, speakers economize the effort of their productions and hypo-articulate.” (p.452). Thus the raised pitch and duration of code-switched tokens in his study are suggestive of hyper-articulation during communication. Subsequently, the author finds that code-switched tokens are relatively not as much of foreseeable by nature in comparison to non-code-switched tokens in a discourse and therefore may characterize some hiccups in communication. It is the lower local predictability that reinforces the speakers to produce hyperarticulated code-switched tokens.

Additionally, Olson's (2016) research encompassed an experiment that included thirteen Spanish-English late bilinguals. He divided them into two groups of 7 English dominant and 7 Spanish dominant bilinguals. Olson used these three language contexts: Monolingual code-switched, monolingual non-switched and bilingual-switched to measure the stressed vowel duration and pitch height. Morphemes from only one language were part of the monolingual code-switched context, monolingual code-switched context embodied insertional code-switching consisting of a guest word rooted into a base language. In contrast, bilingual-switched context environment represented an equal mix of both languages.

Contrary to his work (Olson, 2012), this work aimed at investigating how code-switching affected suprasegmental features in the areas of mode and language dominance. As encapsulated above, Olson (2012) described that code-switched tokens have higher pitch height and vowel duration than non-code-switched tokens. Early balanced Spanish-English bilinguals exhibited these suprasegmental traits when switching into their L2 (English). Olson (2016) tried to state the gap and add to this by pointing out that code-switching took place with notably higher pitch height and more significant stressed vowel duration in comparison to their non-switched

counterparts only when both the groups switched into their L1 in the monolingual context. An example of the same is insertional code-switching. Based on the Hyper-articulation, Hypo-articulation theory, and local predictability, Olson describes the result mentioned above. Code-switched tokens may form or produce a cognitive difficulty for the speakers leading to hyper articulation or prominence. This could be because code-switched tokens are less probable compared to no-code-switched tokens. The guest word evades predictability, and therefore there is a hyper-articulation in the case of insertional code-switching. The research described significant variances between code-switches in the monolingual mode and code-switches in the bilingual mode concerning bilinguals' language mode.

This, too, has been explicated in terms of H&H theory. The more number of code-switches makes them slightly more predictable than the single code-switch in the monolingual mode, in the bilingual mode. This results in a greater degree of hyper-articulation in monolingualism than in bilingualism. Lastly, the research found hyperarticulation only when both the groups switched into their L1 in the case of language dominance. This has been explicated in terms of the Inhibitory Control Model (ICM). It is imperative for the first language to require more effort for inhibition and, consequently, more significant effort for activation as the first language is a stronger language. Thus, the previously less foreseeable code-switches into the L1 characterize code-switches into a strongly inhibited system, causing a greater suprasegmental prominence.

One of the most recent studies (Muldner et al., 2017:3) augments the empirical paradigm on code-switching studies. The study is concerned with, unlike previous studies, the segmental and the suprasegmental level of 'vowels' for the duration, pitch, and quality of the vowel. One of the significant aspects of the study by Muldner et al. (2017) is that it examines vowels instead of consonants in monolingual versus code-switched contexts. The vowel production was studied and described in terms of formant frequencies F1, F2, and suprasegmental features, and pitch and vowel duration among twelve early Canadian French-Canadian English bilinguals. French and English contexts were created and further subcategorized into a monolingual and non-switched mode and a monolingual code-switched mode (Olson 2016). The monolingual code-switched mode embodied insertional code-switching and a guest word in the matrix language, whereas the monolingual non-switched mode consisted

of sentences made up of only one language. Four vowels from French and three vowels from English were part of the test and methodology.

The studies show concerning the fundamental frequencies that the English formants (F1 & F2) and the French formant F2 has the same acoustic traits in monolingual and code-switched contexts, while the French F1 exhibited a marginally significant trend towards English. The researchers' conjecture is that that this slight influence of English (L2) over French, which is L1, could be triggered by the 'English dominant' setting in which the experiment was conducted.

This study explains and describes that there are no phonological consequences of code-switching on vowels. As espoused by Grosjean & Miller (1994), this study highlights a comprehensive and equivocal phonetic change from one language to other language. As far as the duration of vowels is concerned, the research and investigation render a fair amount of empirical data for hyper-articulation, validating that code-switched vowels have a longer duration than their non-switched equivalents. Regarding pitch, the researchers explored that the pitch of the code-switched words' pitch of the fundamental frequency approached the pitch of non-switched words of the opposite language. That is to say, the pitch of English code-switched vowels loomed towards the pitch of French non-switched vowels and vice-versa. In sum, the researchers concluded that this is an intuitive result because the matrix language may influence the entire sentences' intonation contour, including the guest word's pitch.

The body of literature presented above concerning the phonetics of code-switching presents variable but insightful outcomes. A plethora of studies have tested multiple bilingual groups consisting of members with different language dominance. These studies have shown different results based on language dominance. And some of the studies have presented that there is no interaction between the L1 and L2 of bilingual speakers (Grosjean & Miller, 1994; Muldner et al., 2017), some researches have come up with the consequences showing that there is an interference from L1 in L2 in one of the L1 dominant group of people (Bullock & Toribio, 2009a; Gu et al., 2008) even when there was dominance of L2 among the bilinguals (Bullock et al., 2006; Bullock & Toribio, 2009a; Khatib, 2002, 2009; Antoniou et al., 2011; Piccinini & Arvaniti, 2015), some groups of bilinguals displayed phonetic convergence (Bullock & Toribio, 2009a; Olson 2016) while others showed divergence (Bullock & Toribio, 2009a; Piccinini & Arvaniti, 2015). A few studies

described bilingual groups where L2 influenced L1 (Bullock et al., 2006; Bullock & Toribio, 2009a; Olson, 2013; Simonet, 2014) while one of the studies testified L2 influence on L1 in case of L1 dominant late bilinguals (Olson, 2016).

Various methodologies (different tasks, different language dominance of participants, the difference in age of learning L2, laboratory versus naturalistic studies) have rendered different outcomes presented through many studies. All of the studies have unequivocally provided empirical data for interaction between L1 and L2 in code-switching, and code-switching is a sensitive test to peer into the L1 and L2 interaction. In addition to these prevailing studies, naturalistic studies endorse the results of experimental studies in the laboratory that code-switching leaves an effect on bilinguals' phonetic production. This produces an impetus towards the understanding of the phonetic workings of the bilingual brain. Accordingly, the current study is a controlled experiment evaluating and examining Hindi-Indian English bilinguals' monolingual and code-switched utterances. This study corresponds to the study by Muldner et al. (2017), which examines vowels. Though Muldner et al. (2017) acknowledge that the observed result of no L1-L2 interaction could have been due to the English environment of their experiment, yet more significant point to underline is that their outcome of research is based on a group of bilinguals whose language dominance is not clear. The dominance of language and is a key factor inter alia and pertaining to bilinguals' production (Bullock & Toribio, 2009a; Bullock 2009; Antoniou et al., 2011; Piccinini & Arvaniti, 2015; Olson, 2016 crucialer alia).

Furthermore, it is perception (Caramazza et al., 1973; Hazan & Boulakia, 1993) and language. Therefore, these results could make the differences murkier between subjects with different language dominance. Since fifty percent of their research participants were French dominant and equal percent were English dominant and coalescing them into a single set and collapsing across their values might have rendered incongruous L1-L2 interaction among bilinguals. One of the cases might be that all of the participants were English dominant, and therefore these outcomes exemplify no contact between L1 and L2, which is similar to the views of Grosjean & Miller (1994). However, the trend encountered in the French F1 formant could be a result of the English dominance of the entire group. Moreover, if all the participants were French dominant, this exemplifies no L1-L2 interaction, and the marginally

significant trend in French F1 could be attributed to the experiment's English dominant environment.

2.4 Interacting Grammars

The pendulum of research questions related to bi/multilingual acquisition swivels between the two prime hypotheses of unitary language system and separate language system. This concerns a situation where two or more languages have been acquired by the person. A foremost concern in the studies of bi/multilingual first language acquisition (B/MFLA) is finding out that the time course and growth path of linguistic development concerning B/MFLA learners is identical to those having a single language in their verbal repertoire.

One of the additional issues is whether exposure to multiple languages concurrently affects the outline of growth in a way that it vary from that is noted in monolingual learners. If evidence could be found, it can adduce insights into how the process that becomes functional in monolingual learners cope with twin or multiple languages input.

Among the various approaches that have caught the researchers' eyeballs, two relate to the bilinguals' mental representation. However, we find no single approach that has been unanimously approved up till date concerning the representation of languages in the brain of a bilingual speaker. A close analysis of both approaches is necessary to understand the perspectives that have led to the current and created a window for future bilingual research. Volterra & Taeschner (1978) underlined that there are three stages that bilingual children pass through during their linguistic development from birth till the age of three years. The first stage characterizes the mix of both languages with a system of lexicons that is unitary in nature. The second stage reveals mild separation with unitary syntactic systems but a relatively same system of the lexicon. The third and the final stage signifies that the two systems emerge distinctively, with each having a distinctive syntactic and lexical architecture. This same hypothesis has been called as Unitary Language System Hypothesis by Genesse (1989). The three stages model has been adduced by the works from other researchers (Redlinger & Park, 1980; Swain & Wesche, 1975; among others). It can be said that competence in each language is more general than mere working knowledge of any particular language. This leads us to the point that bilingual

children become bilingual only after they reach the age of three (Genesse, 2001:155). The ground of their assertion is that the bilinguals children in their early stages of acquiring language, use code-switching putting into use lexical, phonological, or morphosyntactic elements from both the language that the children have in their verbal repertoire with the same utterance. This specifies that they are not capable of storing and using two languages in isolation.

Contrary to the ideas and deliberations mentioned above, the other hypothesis called the Dual Hypothesis states that bilingual children from the one-word stage onwards can segregate their two languages and use them separately. This occurs as per the linguistic context and the interlocutor's participation and his/her linguistic background. This ability to differentiate possesses valuable explanations at various linguistic tiers such as phonology (Celce-Murcia, 1978; Paradis, 2001), syntax (DeHouwer, 1990), pragmatics (Genesse, Lanza, 1997a; Meisel, 1989; among others) etc. The above-mentioned researchers' battery has explained a bilingual child's code-mixing in terms of the language input they receive and their proficiency in both languages. The input hypothesis states that bilingual children are involved in code-mixing depending upon the number of code-mixing input they receive from their family or other adults. According to the proficiency hypothesis, code-mixing is induced either by the child's less proficiency in the respective language or the child is unable to locate equivalent translation of the words that they want to use in the utterance (Genesse, 2001). Both of these hypotheses are corroborated by several researches, code-mixing by these bilingual children is largely seen in terms of their proficiency. One of the difficulties that the dual-language system hypothesis encounters and has tried to tackle is the autonomy or the interdependence of the linguistic systems. The concern that they endeavor to address is “whether young children exposed to two languages acquire abstract constraints (or rules) that are different for and specific to each of the target languages” (Genesse, 2001:158). Paradis and Genesse (1996) pointed out that no “transfer, delay or acceleration” in the syntactic development of French English bilinguals is observable as compared to monolingual pedals”. Researchers like Flege(1995), Muller(1998), Dopke(2000), Yeni-Komshian, Flege, & Liu(2000), Paradis(2001), Fabiano-Smith and Barlow(2010) have presented data and substantiated cross-language influences,

signifying non-autonomy of the two systems. However, more data and research are imperative to clarify how much these two systems interact.

The area of language contact, mixed language, or code-switching merits more in-depth exploration with data from various age groups that can help researchers posit a strong theory or state conclusion concerning the linguistic development of multilingual children. Having stated that, one point must be highlighted that these research have paved the way towards a better understanding of language faculty and consequently galvanized researchers' interest from multifarious disciplines. This has to great extent triggered interest and disentangled the questions and theories of mixed language research.

Fractional and the wholistic view, as proposed by Grosjean (1985c, 1989), constitute one of the most vital dichotomies in the literature available on the bilingual study. This proposal mainly emanated to steer the direction of research on bilingualism in the appropriate direction. The notion such as “Two monolinguals in one person” emerged from Grosjean (1985c, 1989) pertaining to the fractional or monolingual view of bilingualism. As per the research that has arisen under the broader perspective of fractional or monolingual views of bilinguals, bilinguals have two completely separate language competencies. These are similar to those of two corresponding monolinguals (Grosjean, 2008:10). Thus, the ways of investigating monolinguals speech and or language have been utilized to study bilingual acquisition. This has spawned fallacious inferences and assumptions a la expecting balanced bilingualism where the bilingual is fully conversant in all the languages and any contact among the languages perceived as merely an accidental phenomena and or aberration. This has resulted in the curtailment of the research perspectives concerning language contact and language mixing. This kind of orientation shall show just one side of the coin.

Thereupon, Grosjean (1985c, 1989) offered a holistic or bilingual view of bilingual acquisition. In consonance with this view, “the bilingual is an integrated whole which cannot be easily decomposed into two separate parts” (Grosjean, 1989:6). There are many fundamental differences among bilinguals and monolinguals. They use their language with different reasons and with different people and in different lives (Complementarity Principle, Grosjean, 2008, 2016).

Thus, both monolinguals and bilinguals manifest their linguistic behavior quite distinctively and this is propelled by the nature of development and the background of language acquisition. The wholistic view proposes a judicious comparison between monolinguals and bilinguals, emphasizing different characters of bilingual, considering the stability of the 2nd language and the language status that the bilingual is in at any given time and place as well as the amount and type of communication of bilinguals Grosjean(1989). Grosjean's proposition has garnered support from empirical works done at various levels of language and cognitive studies, ascertaining that bilingualism is a distinctive and specific hearer-speaker in her own right and cannot be verified, tested, or studied according to the monolinguals norms.

To appreciate and comprehend bilingual's mental representation of the language during the process of perception and production, Language Mode continuum was proposed by Grosjean (1982, 1985c, 1989, 1994, 1997a, 1998a). Language mode by Grosjean (2008:38) has been defined as “the state of activation of the bilinguals' languages and language processing mechanisms, at a given point in time.” In this continuum, the bilingual speaker deactivates the first language towards its monolingual end. This process does not happen in totality. At the bilingual end, the bilingual speaker starts by selecting a base language, then activating the other language, and then recalling that language occasionally in code-switches and forms of borrowings.

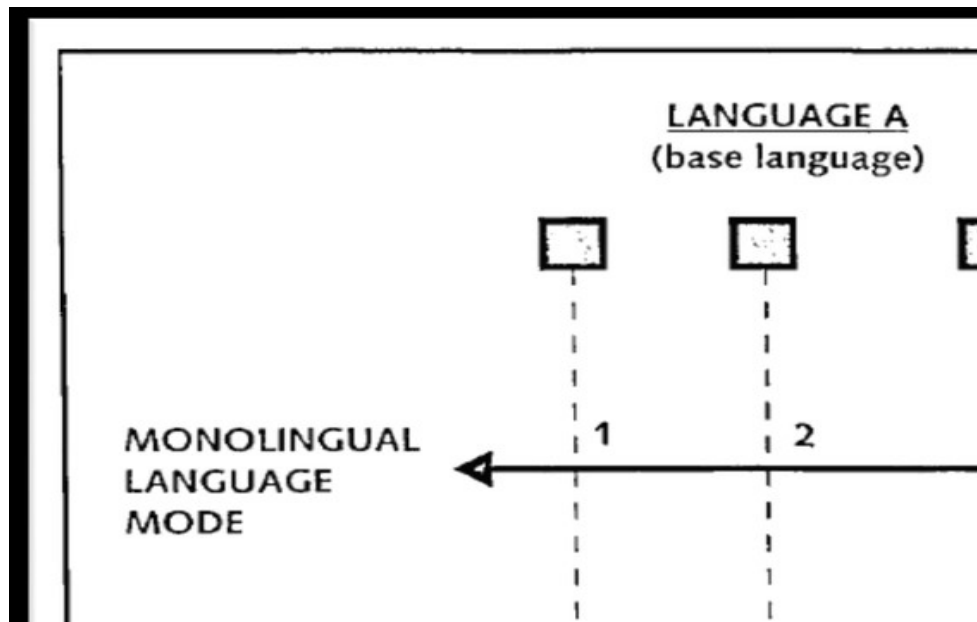


Figure 2.1 : “language mode continuum” as proposed by Grosjean (1998a).

Figure 2.1 Depiction of the “language mode continuum” presented in visual form. The positions of the bilingual on the continuum are illustrated by the irregular perpendicular lines (1, 2, 3). The base language is LANGUAGE A, and the guest language is LANGUAGE B.

The language mode rests on many factors for instance, the interlocutors (especially their language proficiency, socio-economic status, the relation among the interlocutors, habits of language mixing), the conversational context (languages(s) used the theme and the topic), the situational context (presence of monolinguals, degree of formality or intimacy, location etc.), research study factors, etc. In the research real of study of bilingualism, language mode needs to be accounted as this provides a clear reflection of how bilinguals process the two languages they use, either independently or together. Is that sequential or simultaneous?

2.5 Cognitive dimension of bilingualism

Hitherto mid of the 20th century, bilingualism's effect on cognitive and linguistic growths was stigmatized and lacked a positive outlook from researchers. Bilingualism was not appreciated for the reasons owing to mental confusion and cognitive and linguistic deficiencies. Saer (1923) led an I- test (intelligence test) consisting of fourteen monolingual and bilingual children ranging from the age group of 7 to 14 years and learnt ten points differences between monolinguals and bilingual children based on the I-test. He established that bilinguals would get mentally confused and were in deprivation compared to monolinguals. Baker (2001:136-139) states various reasons that nullify any such outcome regarding bilinguals. He states the followings:

- Hereditarianism or multi-dimensional interpretation of intelligence.
- The language format of the Intelligence test: bilinguals should be evaluated checked either on both their languages or on their dominant language or both their languages.
- The usage of statistical assessments rather than averages: The re-analysis of Saer's (1923) results discovered no statistically substantial alteration between the monolinguals and the bilinguals.
- The basis of cataloging of bilinguals: Entire 4 linguistic abilities (viz- ”speaking, reading, writing, listening”), fluency, age of acquisition, etc.?

- Using a generalized view of the example results for the whole populace of bilinguals.

The language and cultural background of the subjects of the study: Minority language groups in subtractive settings (where a child's first language can get replaced by a more prestigious second language) may lead to negative cognitive findings as compared to additive settings (where both languages complement each other).

To put it into a nutshell, research pertaining to cognition in bilinguals till 1960s explicated conclusively that bilinguals' linguistic capabilities were inferior to that of monolinguals concluding from the verbal IQ test. Peal (1962) and Lambert's (1962) study highlights the cognitive advantage of bilinguals over monolinguals and the multi-dimensional nature of bilingualism through a newer and more systematic approach.

The year 1975 is marked with a study that demeaned bilinguals' capabilities, tagging them as 'semilinguals'. Hansegård (1975; see Skutnabb-Kangas, 1981) summed up that with the help of six language competencies viz vocabulary size, unconscious language processing, language correctness, language creation, command over the language functions, meanings and imagery (see Hamers and Blanc, 1989, 2000; Baker, 2001) that bilinguals suffered from semilingualism as compared to monolinguals. The term semilingualism referred to the individuals who had no sufficient level of competence in either of the languages they possessed. The notion of semilingualism was contested and queried by many scholars (Skutnabb-Kangas, 1981; Wiley, 1996a; MacSwan, 2000; Baker, 2001). Factors like competence, socio-economic status, gender, type of education, etc. were part of the methodology engaged in the studies that supported semilingualism. These factors were not the same for monolinguals and bilingualism, and thus the results merit doubts. Bakers (2001:9-10) presents six significant concerns and issues with the concept of semilingualism: bias towards bilingual, lacunae in the education test utilized to measure language proficiency, arbitrary cut-off points to choose who is or who is not a semilingual, language used in the context-specific, the social, political and and conditions which lead to the underdeveloped competence and demeaning overtones.

Nevertheless, vanguard researchers like Peal and Lambert (1962) discovered the fundamental characteristic of bilingualism. With the application of more

systematic and accurate use of methodology and integrating factors such as language competence and socio-economic status of the participants, Peal and Lambert (1962) presented that bilinguals can have cognitive edges over their monolingual counterparts. The study consisted of 110 French-English bilingual children and striking a comparison with monolingual children on verbal as well as non-verbal experiments, and they found that bilinguals outshone their monolingual counterparts in 15 out of 18 tasks. On the other three tasks, both the groups performed equally well. Based on the data that the researchers could get, it was concluded by both Peal and Lambert (1962) that bilinguals possessed greater cognitive agility and reorganizational skills in comparison to monolinguals. Even though Baker (2001:141-142) pinpointed some gaps in the research of Peal and Lambert's (1962), the work remains one of the most substantial reference points for the positive outcomes of bilingualism.

After that, a plethora of research has been done to create a concrete and better understanding between bilingualism's phoneme and its cognitive aspects and implications. The body of works that have been done shows enhanced cognitive flexibility (Ianco-Worrall, 1972; Ben-Zeev, 1977; Hakuta, & Diaz, 1985; among others), Better attentional and executive control (Bialystok, 1999, 2001, 2007, 2011; Bialystok et al., 2008; Costa, Hernández & Sebastián-Gallés, 2008; Costa, Hernández, Costa-Faidella & Sebastián-Gallés, 2009; Bialystok, Craik, & Luk, 2008a, 2008b; Emmorey et al., 2008b; among others), more significant (meta) linguistic awareness (Bialystok, 1997; Ben-Zeev, 1977), improved creative acumen. One of the exceptions is that bilinguals may possess a relatively smaller vocabulary size in both languages. All these work in unison stated that bilinguals have better cognitive abilities and advantages than monolinguals.

Ellen Bialystok has been one of the pioneers in the field of bilingualism and its cognitive implications. Her premier work (Bialystok, 2001, 2007, 2011; Bialystok et al., 2005, 2007; inter alia) have brought big data and better understanding in the field. She states that "... the constant use of two languages by bilinguals leads to changes in the configuration of the executive control network and results in more efficient performance on executive control tasks, even those that are completely nonverbal" (Bialystok, 2011:6). Her works encompass both children and adults. In addition to this work, her research comprising monolingual and bilingual Alzheimer's patients

presents that bilinguals show a considerable amount of delay in the onset of dementia symptoms and an augmented cognitive function in case of bilingual patients with suggestively more atrophy than monolingual dementia patients. In brief, her work divulges the adapted cognitive networks and cognitive abilities that bilinguals have which equip them with better cognitive performance (Bialystok, 2011:8).

Apart from research mentioned above, the past twenty-five years of research in cognitive implications and consequences of bilingualism have heralded the noteworthy discovery of interactions between language usage, cognition, and the brain. Three main results have stemmed from the researches concerning the influence of bilingualism. Firstly, both the languages in bilingualism are dynamic when listening to speech, reading words in the respective languages, and planning a speech in the two languages simultaneously. This simultaneous initiation of the two languages specifies that the language not in use manages to play a role without the bilingual's awareness. This cross-language activation phenomenon also leads to tussle in order to appropriately and fluently use the intended language. Secondly, there is a two-way contact between the two languages that a bilingual speaker possesses. One of the critical points that need to be understood here is that the native language (L1) influences L2, but L2 also influences the native language with increasing proficiency. The influences that the second language brings to the L1 can be attached to all the linguistic levels, namely; words, grammar, phonetic, and phonology. This substantiates Grosjean's (1989) observation about bilingual speaker not being "two monolinguals in one brain." Thirdly, the magnitude of bilingualism is not just on language processing, but it impacts domain-general cognitive developments. The experiences that bilingualism provides structures the brain networks and renders neural support during early development as well. The overview of the work on bilingualism by Kroll et al. (. (2015) and Kroll, Bobb & Hoshino (2014) encapsulated the works on bilingualism in these words, "... a remarkable level of plasticity across the bilingual's two languages, with evidence that the two languages engage directly within a single language system that is stretched in different directions by the conflicts and convergences present across each level of language use." (p.15)

2.6 Linguistic dimension of bi/multilingualism

The linguistic approach to bilingualism focuses on the structural patterns in the bilinguals' language compared to the cognitive approaches that have scope and objectives of unearthing the effect of bilingualism on the mind and brain. In the linguistic dimension of bilingualism, the most important question that is central to the research is the interaction and the structure of grammar in the bilinguals' mind and the speech, acquisition of two grammatical systems, and the usage of these two systems simultaneously. This has resulted in the attention of research on bilingual acquisition and linguistic growth during young age. As seen in all research fields, different opinions do exist critical to have an assortment of opinions and orientations.

Macnamara (cited in Bialystok, 2001) states that “bilinguals have a weaker grasp of language than monoglots” concerning linguistic development. After appraising the studies available on the linguistic development in bilinguals, Macnamara declared a delay in the acquisition of linguistic skills that included grammatical awareness in bilinguals.

Conversely, various other researchers take an opposite stand and present pieces of evidence in contradiction to what Macnamara observes. Bilingual children train the same path of development, acquire the same level of grammatical competence and accomplish linguistic mileposts in the exact pattern as the monolinguals do Meisel (2004), Paradis & Genesee (1996), Genesee & Nicoladis (2006), Bialystok et al. (2009). The works of Paradis, Crago, Genesee & Rice's (2003) address that bilinguals children with SLI share the same developmental track as monolingual children with SLI. Infant little over the age of one year raised in a bilingual setting maintains and progresses the firm distinctions for the phonetic system in both the language compared to monolingual babies of the equal age group who mislay the acumen to distinguish contrasts that are not part of their linguistic setting. Hence, there is a development of a phonological basis for both the languages in a bilingual child equally and simultaneously.

Children encounter the same milestones for word learning, whether monolinguals or bilinguals (Pearson, Fernandez, & Oller, 1993) in spoken or sign language (Petitto et al., 2001). Nevertheless, the approaches used for learning words

and the extent and speed of acquiring vocabulary differ significantly (Bialystok, 2009).

There are few studies (Bialystok, Barac, Blaye, & Poulin-Dubois, 2010; inter alia) that report a difference in the case of the strategies of word learning among the monolingual and bilingual children.

Others (Au & Glusman, 1990) debunk this idea of the difference in word learning strategy. Researchers like Bialystok et al. (2009) state that bilingual children use different mechanisms compared to monolingual children when acquiring new words. However, there is a similarity in the production of the meaning words both by the monolingual and bilingual children. Some interesting research by Ben-Zeev, (1977) Pearson et al. (1993) Bialystok (2001), Bialystok, Craik & Luk, (2008b), Bialystok & Feng, (2009) reveal that monolinguals have smaller vocabulary and bilinguals have a more extensive vocabulary in the process of development of vocabulary.

To better understand the bilingual linguistic ability and the bilingual mind, one needs to understand the porous boundaries between linguistics and cognitive sciences (Bialystok et al, 2009). Bialystok and others (2009) state that the usage of language in the case of bilingualism must be closely investigated from a cognitive perspective to help better understand cognitive linguistics and bilingualism. There are two significant differences between monolingualism and bilingualism, as stated by Bialystok et al. (2009). \ This information base is less deep or less connected in each of the bilinguals' language because of the lesser frequency in the usage of each language (Gollan, Montoya, Cera, & Sandoval, 2008) for a monolingual of either language. Therefore, the alteration in linguistic performance (retrieval of lexicon) between the monolinguals and bilinguals take place. Secondly, as discussed earlier, both the languages used by a bilingual speaker are active, also when only one of the two is in use. Many types of research have corroborated this fact with conclusively states that “joint activation of the two languages creates a unique need for selection in bilinguals in which language processing must resolve competition not only from within language alternatives as monolinguals do to select among close semantic neighbors but also from between-language alternatives for the same concepts” (Bialystok, 2009:93).

Bialystok et al. (2009) noted that there is distinct cognitive and linguistic development through the language acquisition (sounds, lexicons and grammar) by both monolinguals and bilinguals trail the same path exhibiting the same milestones. The cognitive abilities retain the language acquisition process on a similar time passage. The variable input and use of language(s) affect linguistic development in qualitative and quantitative ways. This brings out the mutual relation between both the networks; linguistic and cognitive. The languages' joint activation results in interdependence and interaction, which fuels the requirement by the bilinguals to pick from the target system from amongst the other available alternatives. A bilingual person can engage the exclusive control system to attend to the essential language, evade any interfering from the non-target language, and check the two concurrently active languages. This impacts the modification of the exclusive processes' nature and efficacy, thereby creating a difference in them from the monolingual's system. Therefore, bilinguals' exclusive functions are redefined by the linguistic processes, even with relatively lower vocabulary levels. This provides them with a cognitive advantage over the monolingual speakers.

Peering into the acquisition of phonology of second language, a plethora of arguments and counter-arguments has been made concerning the acquisition of new phonetic categories by bilinguals. Flege (1995) presented the Speech Learning Model (SLM), which is considered as one of the primary and prominent models. SLM aims at finding out an explanation for a variation in the extent to which individuals learn or cannot learn both production and perception of phonetic segments in L2 Fledge (2005). Below are the main ideas of SLM:

1. The Critical age hypothesis relatively has less impact on the L2 speech learning. Nonetheless, SLM acknowledges that children are more likely to create phonetic categories for L2 sounds than adults as their L1 categories are less developed and are not strong attractors for L2 sounds segments.
2. The capacities required by monolingual children to acquire the language-specific possessions of their L1 are retained throughout their life and stay accessible to L2 learners of all ages. In other words, L2 learners, irrespective of their age when first comes in contact with the L2, can start new phonetic categories for L2 sounds if provided with the right kind of input and time to do the same.

3. The 'common phonological space' refers to the various categories making up the first language and second language phonetic subsystems of a bilingual. Through phonetic category assimilation and phonetic category dissimilation, the first and second language phonetic categories interact. These two mechanisms impact the segmental phonology (vowel and consonants) of first and second language.

According to the phonetic category assimilation, sounds from L2 are subsumed by the sounds of L1 if the L2 sounds are conceived to be similar to L1 sounds. Therefore, L2 category formation is blocked by equivalence classification. Contrary to this, if a sound from L2 is perceived to be dissimilar from the closest L1 sound, there is a great probability that a new phonetic class will be formed for that segment. Furthermore, if this afresh recognized L2 phonetic group is comparatively close in the vowel space to the pre-existing L1 class, the distance from each other in the phonetic space minimizes the perceptual misperception phonetic category dissimilation. This procedure may render the production of L1 sounds or L2 sounds or both different from the production of the speakers' corresponding monolingual sounds. Category realization of the second language or L2 sounds relies on the observed dissimilarity between L1-L2.

The phonetic and phonological characteristics of second language learners L1 and L2 have been researched upon by Flege et al (1987). They put forward a lot of data with examples to corroborated SLM highlighting phonetic assimilation (Flege, 1987; Mackay et al., 2001), phonetic dissimilation (Flege & Eefting, 1987, 1988; Flege, Schirru & Mackay, 2003) as well as the two ways influences (Flege, Yeni-Komshian & Liu, 1999). Flege (1991) falsify SLM, however Flege reckons that more in-depth studies are imperative to substantiate what he has tried to elaborate. Besides, Flege's works have endeavored to study the connection between L2 speech production and the age of acquisition of second language, input in L2 speech learning, and the level and kind of L2 usage. He insists that age-related outcomes on L2 pronunciation are still unclear, and more in-depth research is required for finding out the effects of these factors on L2 speech performance (Flege, 2007:376). The area of bilingual speech production has generated a lot of traction among the researchers. As stated in the above sections, bilingualism stems from language contact situations and induces various linguistic, socially, and cognitively influenced outcomes. Some of the

bilingualism and language contact results include language mixing, language convergence, and lexical borrowing, which further results in pidgin, creoles, and code-switching. The genre of bilingual language acquisition is left with many unanswered questions and deliberation. One of the most pertinent questions is if the dual systems emerge from a single system, which then ruptures into two independent systems (“Unitary Language Systems Hypothesis”) or as dually developing systems (“Dual Language Systems Hypothesis”). There is some unanimity among the researchers involved in bilingual speech production that young bilinguals isolate their phonetic and these systems that have been proposed to reside in a common phonological space (Flege, 1995) and to inhabit a standard representational network (Dijkstra, 2007). Furthermore, some studies show that there is an interlingual interaction between the two languages of the languages of the bilingual (Flege, 1987; Flege et al., 2003; Bullock & Toribio, 2009a; Amengual, 2011; Olson, 2013, 2016; Simonet, 2014; among many others).

At the lexical and syntactic level of analysis of language, it has been found that there is a representation of contrasting lexical items and syntactic structures of one language or the other, however, at the phonetic level, the interaction is minutely detailed. Few researchers have pointed out inter-lingual phonetic interaction in non-switched contexts and in language acquisition (Caramazza et al., 1973; Flege, Mackay & Piske, 2002; Fowler et al., 2008). Despite a considerable research volume in this area, the nature of research is still indecisive and fuzzy (Fabiano- Smith & Barlow, 2010). It is essential to look into the context when bilingual switching to the other code, such as code-switching or code-mixing. Generally, the available research has examined the bilinguals keeping one of their languages from the verbal repertoire (e.g. Caramazza et al., 1973). In a situation like language- contact and language mixing, phenomena like code-switching and code-mixing can harness our understanding if studied and provide strong reference points to adequately understand inter-lingual phonetic interactions.

2.7 Sounds and the multilingual set up

Do children with exposure to two languages simultaneously show the same development outlines and at the same age compared to monolingual children in

perceiving and producing words? This notion has evoked loads of interest among the researchers working in these areas.

An offshoot among the issues in the studies concerned with speech production has been when children with exposure to two languages present evidence of having two distinct phonological systems.

In the recent past, there has been a vast volume of study dedicated to the growth of the phonological system, but it must be received with great care and attention as this area of research varied in linguistic focus as also the age of the children who were subjects of the study.

However, the research depiction that is evolving shows that bilingual children tend towards different development patterns in non-segmental (syllable structure, patterns of rhythm) and segmental (at the level of phonemes) phonology in contrast with monolingual children (Vihman, 1996). If the languages have different patterns of rhythm, infants who are monolingual can make a distinction between their native language and a foreign language. This has been adduced by research in speech perception through the pre-verbal stage of growth (Mehler, Dupoux, Nazzi, & Dehaene-Lambertz, 1996). The infants develop the ability to discretely perceive language even if they belong to the same rhythmic group by the age of 4 months (Bosch & Sebastian-Galles, 1997).

Bosch and Sebastian-Galles (1997) investigated the same. They presented the finding that a 4-month old child who had exposure to Catalan and Spanish can parallelly separate the two languages, showing that if the child has reduced exposure to each language; there is no delay in the appearance of this ability in bilinguals. The capability to distinguish between two languages initially in growth helps in creating discrete linguistic systems.

Since birth, children with twin language exposure display the same abilities as monolingual children would do, yet, later. This has been presented in the research intended to peer into the early perception of segmental speech (see Polka et al, 1994).

The contrasts that are phonetic can be discriminated by infants that might not be essentially phonemic in their L1. (Vihman, as cited in Hoff & Shatz, 2007)

Nevertheless, from six to 12 months of age, children can differentiate phonemic contrasts in their language, but not those that are not phonemic, and thus

their abilities to discriminate become language-specific. Contrasts among vowels are perceived phonemically earlier (see Bosch & Sebastián-Galles, 2003) compared to the contrasts among the consonants.

B/MFL children experience an analogous re-organization in speech perception but show language-specific properties somewhat later than it is seen in monolinguals by 12 months for contrast of vowel (Bosch & Sebastián-Gallés, 2003) and by the age of fourteen to twenty-one months for contrasts of consonants (Burns, Werker, & McVie, 2002).

It is found that children who are exposed to two languages have correspondingly exhibited a postponement in the capacity to employ contrast, which is phonetic in word learning. Fennell, Polka, & Werker (2002) established that while monolingual children could associate words that were different by virtue of having a minimal consonant contrast, bilingual children had the capability to do so only by the age of twenty months. Polka and Sundara (2003) contrasted this in their research on word segmentation established that children with French-English bilingualism were capable of fragmenting words from a continuous segment of speech in both of their native languages akin to monolingual children.

The amount of exposure influences the early recognition of the form of words in bilinguals (monolinguals). Vihman (2005) found that 11-month Welsh-English bilingual children failed to present the differential preferences for familiar over unfamiliar words in a head turn preference study, whereas monolingual Children with English as their language succeeded. Further, Vihman (2005) reports that a Welsh-speaking monolingual of eleven months of age didn't show a preference and suggests that both the monolingual and bilingual children's performance about Welsh might be induced by the comparatively low status that is attached to the language compared to English which has higher status.

Concerning the notion of production, Oller, Eilers, Urbano, & Cobo-Lewis (1997) stated babbling started at the same time for a group of English-Spanish speaking bilingual children and English speaking monolinguals. Subsequently, Maneva & Genesee (2002) render evidence of differentiated babbling by a ten-fifteen-month bilingual child with French and English matched with the patterns attested in the babbling of French and English babbling. What were examined in this study were

the prosodic features concerned with babbling, like the length of an utterance and the syllabic structure.

Signs of differentiation at the prosodic level are exhibited from a nascent stage in development when B/MFL children start producing words. The research by Paradis (2001) found that French-English bilinguals in the age group of two were more expected to eschew syllables from new four-syllable words based on the typical patterning of the stress of that language. It is however not clear whether and/or when B/MFL children possess segmental phonology of two language-specific repertoires. The bilingual children's segmental phonology has been found to be akin to monolingual children of same age during their preschool time with regard to phonetic substitution (e.g., substituting [l] for [r] in the Spanish word “cruz”; from Barlow, 2002), voice onset times (Kehoe, Lleó, & Rakow, 2004), and syllable reduplication and consonant harmony (Schnitzer & Krasinski, 1994; Johnson & Lancaster, 1998).

Further studies have highlighted the delays or variances relative to children with single language on some of the very identical measures (Schnitzer & Krasinski, 1994).

Multiple influences could be linked to the variability that is seen in the phonological growth of BFL learners. Some of them are akin to those that influence monolingual phonological growth and some are particular to BFLA. The same comprises general development factors that are maturationally-based and the individual differences (compare Schnitzer & Krasinski, 1994 and Schnitzer & Krasinski, 1996; see also Kehoe et al., 2004).

Unequal or limited exposure to or practice with each language is specific to BFLA (Arnberg, 1981; Bell, 2001), asynchronous growth that echoes standard language-specific alterations in the arrangement of development of phonological abilities (Matthews & Yip, 2003), cross-linguistic transference (Paradis, 2001), and idiosyncrasies in the distributional and/or qualitative properties of bilingual speech input.

2.8 Phonetic consequence of Bilingualism:

The production of speech in a multilingual setup has garnered a lot of deliberations and inquiry. Language switch has constituted the central area of study in the last few years. “..any change in language, potentially void of a larger discursive unit” is the

definition that has been given by Olson (2012:7). There are several studies that have been done in a myriad of areas such as psychological, social and phonological features and highlighting the interactions between Multiple languages (Caramazza et al., 1973; Elman et al., 1977; Soares & Grosjean, 1984; Grosjean & Soares, 1986; Grosjean, 1988; Hazan & Boulakia, 1993; inter alia) and sociophonetic studies (Flege, 1987; Flege & Eefting, 1987, 1987a; Flege & Hillenbrand, 1986; Sancier & Fowler, 1997; Flege et al., 2003; inter alia).

Voicing, aspiration, and forces of articulation, which either in combination or individually can distinguish between stop phonemes like /p, t, k, b, d, g/ can be derived from the single articulatory feature of voice onset time (VOT). VOT is delineated due to the time lag between the release of the plosive consonant and the starting of vocal cord's vibration (Lisker & Abramson, 1964). This has resulted in many studies that have explored this characteristic among multilingual peers to peer into the shifts in VOT between the constituent languages to determine the impact of one language on the other languages.

Caramazza and others (1973) examined through a psycholinguistic study and found that it is relatively easier to switch language for production than perception. VOT of six voiced and voiceless stops belonging to French-English Bilinguals with French as the dominant language constituted the core of the study. Caramazza and others (1973) presented in this study that the L1 of the bilingual interferes with the first language. This interference is unidirectional as it interferences cascade from Stronger (L1) to the weaker (L2) language. However, contrary to what Caramazza has presented, Hazan & Boulakia (1993) conducted production tasks with French-English bilinguals. The results showed that the base language had no significant effect on the guest language.

In one of Flege (1987) studies, the voiceless stop /t/ of two groups of bilingual French-English women were tested. One group was constituted by females with English as their native language, and they have moved to France as adults. In contrast, the second group had women with French as their L1 and had transferred to the United States of America during their adulthood. The study's outcome showed that the VOT values varied significantly in the English monolinguals and the French /t/ of English-French bilinguals in Paris with longer VOT values (than French monolingual) and the English /t/ among the French-English bilingual in the US with shorter VOT

value. Thus, both the groups approximated the VOT norm for /t/ in their L2. Still, they did not achieve it, thereby illustrating VOT values that were intermediate to the monolingual English and French mean values. The longer VOT values of the French /t/ among French English bilinguals in the US compared to the French monolinguals represents the impact of English (L2), and the English /t/ of the English-French bilinguals in Paris showed shorter VOT values compared to English monolinguals signifying an influence of French (L2). Thus, this study also presents that the two systems occupy the common phonological space and have interaction, apart from showing that phonetic category assimilation.

Some of the studies concern the involvement of tools used in phonetic studies and its application in the area of sociolinguistics. In such an exploration, which is called sociophonetic, Flege & Eefting (1987) explained that bilingual Spanish-English speakers' speech had voiceless obstruents /p,t,k / in English with VOT values influenced by their Spanish. During the study, three different groups, i.e., children, late childhood bilingual adults, and early childhood bilingual adults of bilinguals, participated in the testing. The groups consisted of children differing in age and for how long they were exposed to a second language, i.e., English. For each of the three groups, the VOT values of Spanish and English were considerably different. However, for children, their English VOT values were nearly transitional to the VOT values of monolingual Spanish and monolingual English speakers. The VOT values of English were nearer to the English monothanues than Spanish for the early childhood bilinguals. This study presents that there are influences of L1 on L2, but these influences vary in all three groups. Similar findings were presented among Dutch-English Bilinguals by Flege & Eefting (1987). There were significant differences in these bilinguals' speech production in English and Dutch from the monolinguals' output from both the languages. Subsequently, the researchers present and mutual influence between L1-L2. These studies Flege & Eefting(1987, 1987) adduce the SLM (Speech Learning Model) (Flege 1995, 1999, 2002) that the bilinguals possess a shared phonological matrix for their two of the languages. Thus the interaction is imperative and natural to take place.

The phenomenon named 'gestural drift' was presented by Sancier & Fowler (1997). It offered a change in VOT that was an outcome of their study of a Portuguese-English bilingual female. They found that VOT's value pertaining to stops

altered in both the L1 (Portuguese) and L2 (English) of their bilingual speaker depending on the speech environment. The Portuguese VOTs glided towards American English when the speaker was in America, and English VOTs drifted towards Portuguese VOT when she was in Brazil. The study highlights that in a temporary language, context-dependent alternations can take place at the phonetic level in bilingual speakers' L1 as well as L2 productions.

Korean and English accents were tested by Flege, Yeni-Komshian & Liu (1999), and Yeni-Komshian, Flege & Liu (2000), consisting of 240 native Korean speakers. The study (Flege, Yeni-Komshian & Liu, 1999) presented that the native Korean participants who came to the US before 12 years of age had less mother tongue influence in their English pronunciation. This was not the case with the Korean natives who came to the US after the age of 14. But in all the contexts, the Korean natives did not have an English accent akin to the English monolinguals. Contrary to this, Yeni-Komshian, Flege & Liu(2000) found that the native Koreans' (L1) sentences in Korean too were influenced by their English (L2). These findings corroborate the notion that phonetic consequences could be bi-directional as well. Flege (2007: 365) states that “these bi-directional influences are a norm rather than an aberration in the context of multilingualism”.

2.9 Summary

Research into multilingualism intersects with diverse disciplines, which makes it per se an area of inter-disciplinary research. Cenoz (2013) emboldens that research in the realm of multilingualism is not mere concerned with the acquisition and usage of multiple languages by a multilingual individual, but also how the presence of multiple languages renders an effect on the society and group of individuals. Burgeoning research have tried to address the societal traits of multilingualism, especially in social sciences. Studies from various linguistically heterogeneous areas a la Canada, the USA and Europe, and more recently South East Asia and Africa have come out. Starting from the 1960s, there was a rise in the number of research in a variety of topics in bi/multilingualism.

The significance of research in multilingualism has advanced for the fact that multilingualism has not merely pervaded through the world (Bhatia & Ritchie, 2008), but as Grosjean (2010) points out that multilingualism as a phenomenon is prevalent

in all social class, all age groups and all the countries. It outdoes the borders among people and social groups. Indubitably, being a multilingual individual or a society augments social, political, cultural and financial scenario. This creates a stronger and prosperous foundation of a society. Recent research (Luk, Bialystok, Craik, & Grady, 2011) have found the cognitive aspects of multilingualism and its gain for individuals.

Chapter 3

Multilingualism and Educational Equity

3.1 Introduction

In this Chapter, a critical discussion pertaining to the concepts affiliated with multilingualism and education has been presented. In a country like India, the presence of multilingualism is conflated with various phenomena ranging from culture, development, identity to education. Most of the schools in India have a multilingual setting. Multilingualism and multiculturalism are inherent characteristics of a country like India. An effort to accentuate the significance of multilingualism in achieving and drawing equity has been made, which subsequently contributes to bringing equity in the culturally and linguistically divergent educational system of our country.

Education in India has been discussed from different perspectives with varying degrees of academic and policy pronouncements and enactments. One of the core areas closely intertwined with education is the enormous multilingual mosaic of India, and surprisingly not much attention has been paid to this aspect. India consists of different languages, communities, and ethnic groups, and it has an abysmal literacy rate. The data from the Indian Census (2--001), shows that the literacy rate of the Schedule Tribes is 58.96% which is far below that of the national average of 74.04%.

Year	Schedule Tribe in Percentage	Total Population in Percentage	Gap between ST and Others in Percentage
1961	8.53	28.3	19.77
1971	11.30	34.45	18.15
1981	16.35	43.57	19.88
1991	29.60	52.21	22.61
2001	47.10	64.84	18.28
2011	58.96	74.04	15.07

Source: Census of India, Registrar General of India

Table 3.1: Literacy Rates of Scheduled Tribes vis-a-vis Total Population in India (1961-2011)

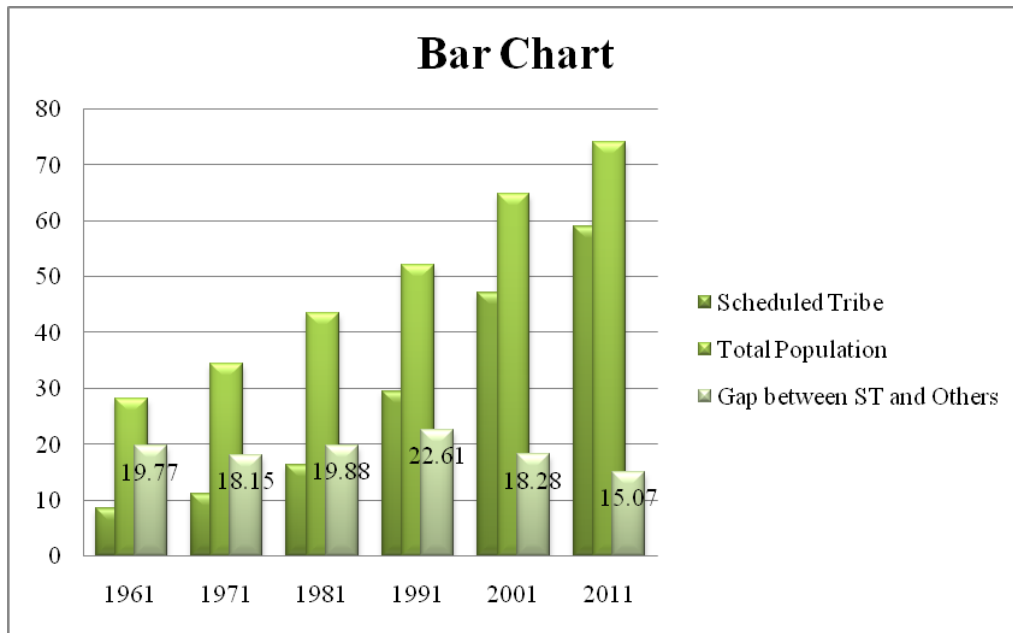


Figure 3.1: Bar chart Literacy Rates of Scheduled Tribes vis-a-vis Total Population in India (1961-2011)

Table 3.1 presents the literacy rate among the schedule tribe of India and the total population from the Country. It encompasses data from the Year 1961- 2011. It captures the gap between the rate of literary of the national average and the scheduled tribes. From the consolidated data, we get a picture that the rate of literacy among the STs in comparison to the national average is abysmal.

This situation results from various factors, policy lapses, and the nebulousness of a state of the art of one size fits all and keeps the issues pertaining to the children's language at the back burner.

3.2 Multilingualism and its Interfaces

Fishman (1980) draws a distinction between individual multilingualism v/s societal bi/multilingualism. Societal bilingualism is a characteristic of Indian multilingualism, where most of the communities have more than one code or language or variety of a language/s in their verbal repertoires whereas individual bi/multilingualism accounts for an individual who has multiple languages in her verbal repertoire and not the community or the society to which she belongs. In a nation like India, societal multilingualism precedes individual multilingualism to a great deal. People speaking multiple languages have caught research interest from a myriad of areas. Historians,

linguists, cognitive scientists, sociologists, education planners, and others have got their shares of significance in the study of multilingualism. Historical, economic, and social facets have played critical roles in setting off research in this area (Cenoz and Genesee 1998). The number of multilingual speakers has opened up new outlooks of interest, and research in these areas is in flux at the global level. D.P. Pattanayak is the avant-garde linguist who zoomed the light on the notion of multilingualism and presented critical viewpoints about the preoccupation of the western notion and theoretical development confined to monolingualism and monoglossia. Pattanayak (1984), states:

“The dominant monolingual orientation is cultivated in the developed world and consequently two languages are considered a nuisance, three languages uneconomic and many languages absurd. In multilingual countries, many languages are facts of life; any restriction in the choice of language is a nuisance; and one language is not only uneconomic, it is absurd”.

Further, Edwards (1994) states, “To be bilingual or multilingual is not the aberration supposed by many, it is, rather, a normal and unremarkable necessity for the majority in the world today”.

One of the most rudimentary areas is education in a multilingual setup. If we try to peer into the Indian context, there is a lack of associated research, and thus a common picture at the national level is conspicuous by its absence.

Multilingualism and multilingual education require us to visit and understand the Chomskyan notion of competence with broader standing and multiple languages at the play. Questions such as the hybridity (Pandey, 2015) of languages and multilingual competence are imperative to visit and revisit. Competence has been investigated from various perspectives a la proficiency and acquisition goals which have offered many research questions and insights. Locating each language's proficiency in a multilingual individual is imperative to peer into a multilingual individual's cognitive aspects and discern the goals attainable in the setup of multilingual education.

3.3 Multilingual-competence

The conformists portray multilingual competence as the sum of distinct monolingual competence. Alternatively, there is a view that each language that an individual has in her verbal repertoire corresponds to the linguistic representation that of a monolingual and not as a subset stemming from the totality of the language system. (Cenoz and Goster, 2011). This observation is akin to the view that multilingual possesses native-like control of various languages (Bloomfield 1933:44).

This traditional view of multilingual competence has seen a theoretical change in the research questions that they try to dig into. Experts are generally of the view that “the proficiency of a multilingual speaker should not be compared with that of a monolingual and should be judged in its own right” (Cenoz and Goster, 2011). Thus a multilingual is not like discrete monolinguals. This undoubtedly stems from the difference in language use in monolinguals and multilingual.

Cenoz and Genesse (1998, 204) highlighted that multilingual possess “larger linguistic repertoire than monolinguals but usually the same range of situations in which to use that repertoire, resulting in multilingual having more specific distributions of functions and uses for each of their languages”. Thus multilinguals employ different languages in diverse contexts. Multilingual speakers do not possess equal proficiency levels in every language that they have in their verbal repertoire (Kemp 2009).

Cenoz and Genesee (1998) tried to identify the multilingual capacity in a fashion where they present multilingual competence comprises the use of “several languages appropriately and effectively for communication in oral and written languages”. Conversely, such understanding of multilingual competence presents a nebulous picture of the notion and level of proficiency of language/s in multilingual.

3.4 Defining Multilingual Competence

“Multilingual competence” is a problematic notion, understood differently by different authors (Savill-Troike, 2006), and research into “Multilingual Competence” warrants concerted and concentric efforts. However, this idea is validated that the notion of monolingual competence and multilingual competence needs to be investigated in their own rights. Defining multilingual competence has not found common ground and lacks a single definition (Savill-Troike, 2006).

Despite all these issues in the conceptualizations in multilingual competence, the debates have generated a common consensus that multilingual proficiency is vital to understand the uniqueness of a multilingual. Multilinguals' actual needs and usage have become centre of explanations pertaining to multilingual proficiency which is relative to the explanation of multilingual proficiency based on its merits. (Cenoz and Genesee 1998).

The uniqueness of a multilingual's proficiency has tremendous implications for understanding and addressing multilingual education's challenges and issues. This also gives leverage to choosing methodologies. Multilingual education could focus on tapping each language's proficiency depending upon the prerequisites and needs of the learners as a substitute for the focus on the native-like controls on the language/s. Specified and different goals should be decided and established for individual languages by the schools that aim at fostering multilingualism. These goals should be decided based on the objectives and needs of the learners related to each one of the language.

This could foster the multilingual set up of the classroom and establish a sense of pride and subsequently trigger interest among the school going kids. The understanding of proficiency signifies that the focus of multilingual education should not be upon arranging a native-like control over the language/s that the child knows. Despite that, the thrust should be on the students' proficiency-based on each language's learners' needs and demands. Cenoz and Genesee (1998), suggest, schools that foster and nurture multiple languages should introduce and institute different targets for different languages depending upon the students' commitment and needs. For instance, in a school in Jharkhand where there are students speaking Kurux[1] language as a home language, Hindi as the second language and a link language and English. The motto should be to create proficiency in these languages based on the needs. The proficiency of English should be developed for higher academic studies and not proficiency used for daily chores and communication.

Competence, which is native-like, should not be the objective of MLE. Alternatively, the goals should be set as per the needs and requirements of the learners in each language. (Cenoz&Gorter, 2011).

3.5 Multilingual Education

The research on multilingual education has augmented over the time with the advent of new perspectives, methodologies, and data to the current knowledge. The world has gradually recognized bi/multilingualism as a norm and not an aberration, as depicted a few years back.

The protection and preservation of minority languages is a concomitant outcome of multilingual education. The questions concerning mother-tongues and native language have always found new answers based on the context and the linguistic scenario. The one –size fits all has been brushed aside. The western notion, especially about the functional aspects of languages needs to be re-thought and re-structured in the context of third-world countries like India. Srivastava (1991, viii) rightly puts...

“Critical linguistics builds the perspective to the study of language from within. It is centered around the ethos that comes into being from within the core of reality. It rejects the process of theory-building that is situation-neutral or derivative of some other theories [...] drawn from the monolingual situation. [...] Even such basic notions like dialect, standard other-tongue etc., as defined in standard textbooks of linguistics, are unable to find their operational significance and applicational relevance in our real verbal situation”. Pattanayak (1992) explains the notion of mother tongues in the context of an imagined nation or a geographical space.

“Places are not geographical concepts; they exist in people's consciousness. So does the concept of other tongue. It is not a language in the general sense of the word; neither is it a dialect. It is an identity signifier waiting to be explained” (Pattanayak 1992, 11).

“Political scientists in the developing Third World, tutored in the theory and methodology of the social science of the West, also join the chorus and repeat ad nauseam that plurality is a threat to the stability of the fragile state. They forget that in these countries, freedom is more fragile than the state. It is inconceivable that there was a single language for all human beings at any time since

human societies were formed. Multiplicity and diversity are the characteristics of nature” (Pattanayak 1981a: 3, vii).

Education in mother tongue facilitates multilingualism as appreciation for mother tongue is a precursor for L2 or L3. Mother tongue-based multilingual could be of significant help in the integration and appreciation of multilingualism in a society.

Mother tongue is one of the determining constituents of quality education, especially at the primary level. A language is not merely a tool for instructions, but it also empowers a child's cognitive capabilities to make meaning, and thus a language becomes a tool for learning. In fact, learning in a language in which one has no proficiency creates a double-edged challenge. There is a challenge in learning that language, and concurrently this posits a severe challenge to learn or construct or make meaning with that language. This threatens the child's language as well as his growth as a multilingual human being. These challenges get exacerbated when the child belongs to a specific group with an abysmal literacy status or socioeconomic status.

MLE comprises the use of two or more tongues in the formal transaction of the curriculum. Here, the formal transaction is not something a teacher using Hindi to explain something in English. However, formally accepted policies of how multiple languages are utilized and employed in the learning and teaching process of classroom. Ideally, as Medium of Instruction and even otherwise formal recognition of the a. pattern of use b how it is going to be used.

Before we do anything, developing multilingual awareness- understanding that diversity in language and culture is required. Recognizing that children have bilingual abilities, if they do not know the school language, they are emerging bilingual. They are trying to learn the school language. Respecting these non-dominant languages and providing them space inside the classroom is what is meant by multilingual awareness in the system. The most crucial point is to have awareness that there are these other languages. These languages should be used in the classroom- there is diversity and recognizing that the children actually use more than one language. It focuses on developing competence, not just targeting one dominant language, but in more than one language. As it is said, including children's language formally- ideally, of course, the first language first and children's language should be employed as “Medium of Instruction”. There is much evidence in India and outside India that a familiar

language foundation helps understand other languages better and better academic achievement than children who study through a language not familiar to them.

So, the basic principle is that including children's language formally in the classroom, preferably the 1st language or the mother-tongue being utilized as the “medium of instruction”, if that does not work, ensuring that languages are used in a structured manner in the classroom, of course valuing children's culture and prior experiences. That is the basis of ensuring that children have high esteem and self-confidence when they see that their experiences are used in the classroom, which helps in better learning.

The initiative of MTB-MLE is for the early grades of education, where meaning-making is primary. This is about language and literacy learning-learning how to learn. This learning includes children's language formally; the 1st language or Mother Language is applied as the instruction medium. The foundation of familiar language helps understand another language better and better academic achievements and performance. The basic idea is that using the 1st language first, of course valuing children's culture and prior experiences, gradually transfer to other languages/ state/ dominant language. It is the basis of ensuring that children have high esteem and self-confidence when they see that their experiences are used in the classroom, helping in better learning. The idea is to start the education with the mother tongue and gradually include other languages which are official or significant for the employment.

Democracy, especially participatory democracy warrants representation of each language in social, academic and political spaces. The goal of inclusive education/ education for all will be only be the reality only if children belonging to different linguistic background are bestowed with admittance and space in schooling with language they are familiar with. It is primarily concerned with imparting education to children speaking languages from the margins or a language considered less significant.

When children come to school, they come with their language that they have from their home, community, and these are essential to achieve success in school and later learning levels. The children who use a under privileged language do not use the official language and thus they are initiated into reading, writing, speaking and more importantly fathom world through their home language. After the children

acquire a competence in their mother tongue, they could be exposed to reading and writing in the official language. Plethora of researches have adduced that a healthy mother tongue is a prerequisite to a better learning and performance in subsequent languages.

In such a context, the minority language children do not face the challenge of *double disadvantage*, as stated by Dhir Jhingran (2005). By the term double disadvantage, it is meant here:

1. The disadvantage of an unfamiliar language
2. The disadvantage of new information, concepts that too mediated through the unfamiliar language from the 1st day of school.

If language disadvantage is there, what happens in the classroom, specifically and education in general? If children cannot comprehend teachers' language or the classroom's language, it entirely becomes a monologue, whereas education aims to engage children in dialogue. The education through the dominant language from the first day shows children a path ahead where there is no space for dialogue, question, thinking, and rethinking. It becomes just training to accept or being obedient without comprehending the meaning. The immediate effect is children in most cases discontinue such schooling (which often happens because minority language children are mostly multiple disadvantaged children as they are either first or second-generation school-going children), where some pressure is there from the home side then schooling may continue for a longer span of time with of course poor learning. Does it create a human resource as education is supposed to do? Of course not. It leads to wastage of public investment and especially the destruction of human resources. Here, mostly affected are the disadvantaged, minority language speakers who are socio-politically disadvantaged as well.

The solution is MTB MLE. It strengthens the foundation of children's learning. As a result, it reduces dropout, increases learning outcomes, and quality of education.

In a nutshell, MTB MLE is more cost-effective in the long run than monolingual education in multilingual countries.

The familiar doubt of promoting MTB-MLE reduces students' capacity acquire, learn or use an official language is not valid. As an alternative, starting

education with Mother tongue supports and strengthens their speaking, reading, writing skills in MT, and these competencies bridge the gap in learning the official language with better comprehension.

What is involved in implementing a useful MTB-MLE program?

In such a program, the community is the most important base. The need for such a program has to come from inside the community, the plan, design, implementation, assessment, reevaluation, and sustenance has to be ensured by the community. However, support of the government could eradicate most of the challenges in the path of implementing such programs.

MTB-MLE 1st focuses on the development of oral fluency in children's' MT; once the children have a strong vocabulary in MT, it focuses on the children's reading skills in the MT, followed by writing skills. If the children acquire these skill in MT, they are ready to learn second/ official language. Taking up to the second language/ official language from the MT is popularly known as the bridging process (Malone, 2005).

In this bridging process, six phases are there. The figure below¹ gives an outline of different phases:

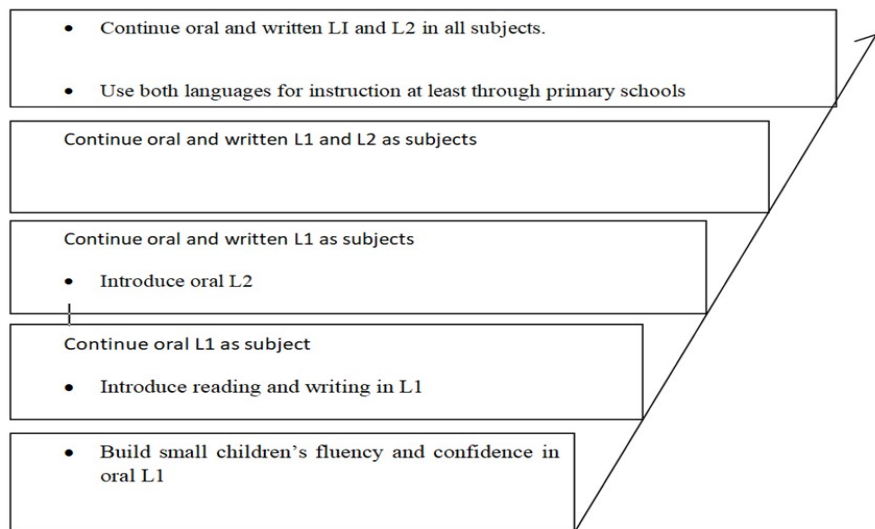


Figure 3.2: Stages of MLE programs in ethnic minority communities (Susan E. Malone 2005)

¹taken from Susan E. Malone 2005

Teachers have a vital responsibility in the realization of the MTB-MLE program. We have to remember that when children come to school, they do not come as *Tabula Rasa*². They come with their language and knowledge, so there is an utmost need to start with these skills to use their foundations to teach new concepts and new content. Teachers need to support them in ensuring oral fluency in MT and gaining skills such as writing and reading (literacy skills) in Mother Tongue and gradually learning the official language of the state. For all these, teachers' training needs to be bolstered.

3.6 MTB MLE: The misunderstood notions

In the Indian context, the picture of MTB-MLE is not very satisfactory despite the country's multilingual situation. However, different policies and programs emphasize the importance of education imparted in one's mother tongue at least starting from the elementary level from time to time. SSA, RTE, and most recently, the NEP, 2020 focuses on mother tongue education. The work of two states, namely Andhra Pradesh and Orissa, significantly implemented the MTB-MLE in their states by applying numbers of tribal and regional languages. Their effort positively impacts the education of minority language children. The NEP, 2020, focused on foundational literacy and numeracy. This demands critical concern.

Here, the importance of language comes. Despite the country's linguistic diversity, primary education is also mediated through the official or dominant language. As a result, minority language speaking children are lagging. Their participation in education for a more extended period could not be observed. For those who are in the system, their learning level could be found very low. Here, the question of language gaps comes until we focus on each child's language, making a robust foundational literacy or numeracy a daydream. Because be it literacy or numeracy, every concept has a language. This language is a child's language, their knowledge system. The inclusion of every child's language could make the foundation healthy and meaningful and open the road ahead for better learning, participatory education. To implement this in the real sense, we need to have a clear understanding of MTB-MLE, its importance, the importance of community participation, and the further planning to have a successful and sustainable program. Furthermore, the most crucial

²Latin phrase means clean slate; John Locke used it in *Essay Concerning Human Understanding* (1689).

point is it needs serious planning and time, just for the sake of implementing or following any policy; if we are going to do that, then of course output would be there, but that would be just for showing that we are implementing MTB-MLE, but it could never reflect the real sense of the program and inclusive sense of education.

The crucial issue is that in India, there is no shared vision of MLE. Different states are taking different initiatives. E.g.- some states have introduced a local chapter in the local language to the existing five chapters of a book. This is an addition to the already existing chapters. Some have introduced bilingual dictionaries for teachers to use. Some others are translating Hindi textbooks to other regional/ tribal languages. E.g., states like Jharkhand, where almost 22 minority languages are there, here, in the name of MTB-MLE, the state has translated the NCERT textbooks in eight different languages, but this is just misunderstanding the notion entirely.

These interventions arise out of a vague understanding of what multilingual education is. Nevertheless, a lot is happening in the state. These happenings are Top Down in nature. There is SCERT, and they take some decisions- this is how we will do- so there has to be some go. There has to be some tokenistic recognition that there is recognition of tribal languages; a package is decided and then hands it down. However, after that, there is little research on what is happening, how teachers are using these, whether these are working, whether these are helping children. This is not to say that we have not been made progress. Things have changed; people are talking about MLE. It does not mean that lots of things are going on, but conversations are happening.

Another critical point is that MTBMLE is not for tribal children only though this is government understanding. Other areas/ other parts also have a disadvantage in learning. This becomes a critical issue where the home language is conspicuous by its absence in the school/s. It is not only about a question of tribal-dominated areas; other groups of children also face language disadvantage.

3.7 Indian constitution and the UN declaration on indigenous linguistic rights

In the Indian set up of multilingualism, English becomes a part of subtractive multilingualism. The tantalizing promises of English medium schools force the parents and society to leapfrog the language that the child uses in the home and which

is the language of experiences and observation. There is this general perception of English mediums education being an instant window to modernization.

Pattanayak (1987: 27) rightly puts it:

“English is part of the multilingual and multicultural heritage of India. Instead of wasting time debating whether English education is necessary, it is high time that Indian educationalists and parents gave priority and attention to improved Indian language education at the primary stages to be supplemented by good English and Hindi language education with opportunities to learn more languages as an option at higher secondary stages.”

The smokescreen created around education by using one language as the medium posits a severe threat to education in India. Home languages, especially the languages spoken by relatively lesser populations, are brazenly silenced and subsequently lead to mammoth drop-outs from the schools. This also instills a feeling of inferiority complex among linguistic minorities. The dominance of one language over another language is not merely a threat to the child's multilinguality but a gross violation of his rights to get an education in her mother tongue. Many provisions, acts, and laws mandate these rights.

India's constitution enshrines specific articles that provide strength in policy pronouncements and implementations for languages on the margins. The constitution of India states the followings vis-à-vis promotion and usage of minority language/s.

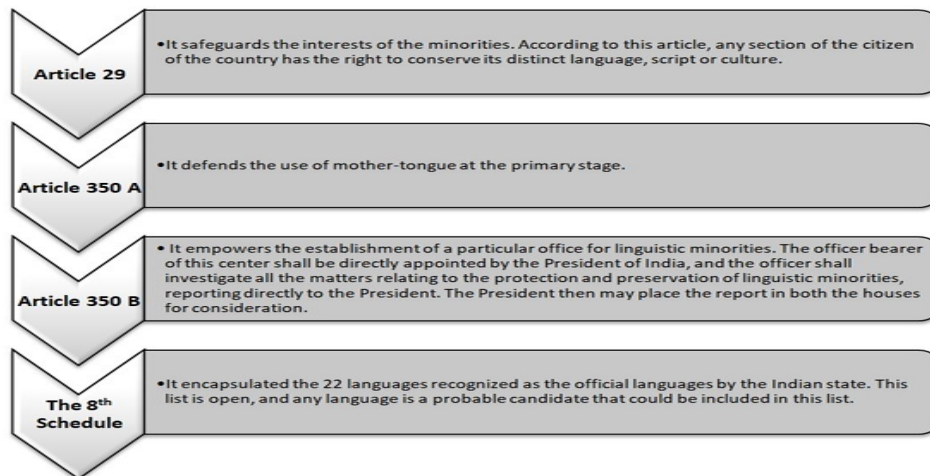


Figure 3.3: Provision for Languages in the Indian Constitution

As mentioned above, the articles on the list are there in the Indian constitution to safeguard and protect languages spoken by fewer speakers or are endangered. If we conglomerate all these provisions and try to garner sense, then it is clear that the protection and preservation of minority languages are essential. Article 350 A is there for the educators and policymakers to frame a system where mother based multilingual education becomes an essential element in the educational system.

In equilibrium with these, multilingual education goals relate to psychological, sociological, and linguistic issues about those of human rights. The UNDRIP³ concretizes indigenous people's rights. The Article 13.1 states the following:

“Indigenous peoples have the right to revitalize, use, develop and transmit to future generations their histories, languages, oral traditions, philosophies, writing systems and literatures, and to designate and retain their own names for communities, places and persons” (Art. 13.1).

As mentioned above and the provision imply that the indigenous people or the school-going kids possess the entitlement to make use of their language in educational spaces and set-up. If institutes are doing this across the globe, it is mandated by the laws and provision and not by any altruism or a bounty.

Art. 14 (1 and 2) states:

“Indigenous peoples have the right to establish and control their educational systems and institutions providing education in their own languages, in a manner appropriate to their cultural methods of teaching and learning” and. “Indigenous individuals, particularly children, have the right to all levels and forms of education of the State without discrimination.”

Induction of minority language will improve the educational status of the indigenous people and provide them with a space to use their cultural expressions and thus infuse a sense of ownership and pride into their language and culture.

³ The United Nations Declaration on the Rights of the Indigenous People

As per the “**ILO Convention No. 169**, Art. 29”

“The imparting of general knowledge and skills that will help children belonging to the peoples concerned to participate fully and on an equal footing in their own community and the national community shall be the aim of education for these peoples.”

This signifies that the space in education can be claimed by the indigenous and tribal children when their bi/multilingualism is encouraged and nurtured.

If this is evaded and overlooked, they cannot get full participation beyond their communities. To have better cognitive abilities, construct a tenacious identity, culture, folklore, one requires a well-established mother tongue/s. Nevertheless, for broader opportunities for education and employment and more involvement in the democratic processes, knowledge of other official or state languages is necessitated. Both are crucial, and there cannot be a contending dichotomy between these. This underlines that if schooling encourages bi/multilingualism and multiculturalism, the notion of right to education becomes stronger and space in discussion about policies about education.

In Art 29, “**The Convention on the Rights of the Child**” (CRC) announces the following pertaining to the education of child:

“the development of the child's personality, talents, and mental and physical abilities to their fullest potential.”

Art. 29 states the following

“the preparation of the child for responsible life in a free society, in the spirit of understanding, peace, tolerance, equality of sexes, and friendship among all peoples, ethnic, national and religious groups and persons of indigenous origin.”

The only motive to present these articles is to highlight the already existing notions and significance of the language of use in schooling systems. Each of these provisions state is achievable, and mother tongues indubitably play a vital role in multilingualism becoming part of the child's verbal repertoire. It has been further substantiated by Thomas & Collier (1997), which is one of the most all-embracing studies examining various minority educations.

In the Indian context, education belongs to the concurrent or List-III (Seventh Schedule). This means that both the state and the government of India share their responsibilities to cater to the people's needs in imparting education. One of the benefits of education being in the concurrent list is that opens up space and opportunities to the states to add upon policies that would be relatively more beneficial to the population of the state, and parallelly the center government too can administer different acts and programs to introduce new paradigms pan India and prepare the students for any opportunity across the country. The right to education (RtE) implies education for all and quality education for all. It is significant to see this in the background of wide-ranging linguistic and cultural contexts that a country like India possesses. The path that we foresee through this is not an easier one. This positions many challenges and adversities for the teachers and the policymakers. The challenges are double as the educational atmosphere must lead to the country's whole population's normative qualifications and simultaneously protect and promote specific linguistic and ethnic groups. Globalized economies, the intervention of technology, have made this task more challenging, but this possesses the answer.

Section 29 (2) of the “Rights of the Children to Free and Compulsory Education (RTE)” Act, 2009 mandates that “medium of instructions shall, as far as practicable, be in child's mother tongue”. “National Curriculum Framework (NCF)” 2005 underlines the consequence of imparting education in the mother language of the children. The NCF (2005) underscores : “language teaching needs to be multilingual not only in terms of the number of languages offered to children but also in terms of evolving strategies that would use the multilingual classroom as a resource.”

As mentioned earlier, education is under the concurrent list so that states can evoke policies where mother tongues based multilingual education could be initiated. The three-language formula needs to be re-looked as it denies space to the minority languages or the languages which are not recognized as a regional language by the state. Moreover, the three-language formula seems to be politically pacifying and hardly offers anything for teaching and learning in a multilingual set and a multilingual country like India.

Restricting the choice of language in the TLF has created a situation of linguistic genocide.

Developing language mindfulness and cementing the gaps between various languages are essential to make education multilingual in nature. Teaching three or more languages serves no purpose for multilingual education with the mother tongue as the prime tool.

Abbi (2004) argues:

“the Indian people who enjoyed the diversity and multiplicity of languages/dialects all along their lives never faced this dilemma of choosing only one, two or three languages for escalating the social ladder....The 98 difficult choice of selecting a maximum number of only three languages will ensure gradual decrease in Indian linguistic diversity. Minority communities, represented by the last three boxes of the pyramid, i.e., the Non Scheduled languages, dialects of Non Scheduled languages, and of those who are represented by less than 10000 number, whose languages are neither included in the ES [Eighth Schedule] nor are considered as a medium of instruction, nor are recognized as a subject to be taught will be forced either to forget their mother tongues or to retain/maintain their respective mother tongues only at the home domain with increasing pressures from the peer group as well as from the seniors of the community to move over to the dominant regional language for intra-community communication.”

3.8 Mother Tongue or Native Language

The Indian constitution through Article 350 A mandates provisions for employing mother tongue as the medium classroom transaction at the elementary level, but it leaves the mother tongue concept open to definitions. The notion of mother tongue is ubiquitous but has no standard definition globally, and it remains wholly equivocal and elusive and a word used and defined based on individuals’ or groups’ socio-political and cultural matrix. Suppose we try to summate the spectrum of definitions that the concept of mother tongues has gone through. In that case, we encounter that it has been used in synergy with words like the vernacular term, natural speech, native language, first language, language acquired in the childhood, one’ smother language, language of the home, natural speech, thinking language, the language of the cultural

being and so on so forth. Whatever the term might be, all of them pulsate the sense of monolinguals or only a single language at a point. This raises both methodological and theoretical concerns in the Indian context. Since we are concerned with education, multilingualism, and the mother tongue or the nativity of a language, it is necessary to understand and particularize on the conceptions of mother tongue or native speaker/s. We find the term mother tongue in abundance in policy statements and narratives, and discourses on education. It is crucial to underscore that the expression mother tongue founders to distinguish among all the alternative linguistic apparatus used by the same speaker, ranging from hinterland varieties to the standard language use in the schools perceived as the mother tongue. We should appreciate that a child's initial immediate wisdom and reality in native language or speech do not necessarily bear a resemblance to the customary version of the school's language of the alleged mother tongue.

As we know that language is not merely a biological endowment; it is equally a part of human social and cultural behavior. The formal and functional aspects of human language make it challenging to attach any working definition to language.

3.9 Interrogating Mother Tongue

According to India's census, mother language or tongue is the language spoken by the household for daily day-to-day communication and conversation among the family members. To linguists, mother-tongue is considered as the primary language that children acquire.

In a multilingual and multicultural country like India, like all things that mark a person's ethnic identity, language, and especially mother-tongue, it is a very complex issue. Indian states were re-organized based on language in 1956.

The 8th schedule of the constitution of India ranks Hindi as the “National Official Language” of India, English as “Associate National Official Language” of India and the languages spoken in each state as the “State Official Language” of that State. As subsequent states were formed, more and more languages got listed in the 8th schedule. Now there are 22 languages in the 8th schedule though, at the time of independence, there were just 14. The reasons for these additions are more political than based on the number of speakers in some cases.

As delineated earlier, the definition of mother tongue comes from the side of the perspective that we have to substantiate and propagate. It is not unlikely to consider that the common understanding of the idea of “other tongues” “is more socio-political than linguistic.

Policy Planners have grossly ignored the role of language in education. It has been completely ignored that language means having a tool to make meanings and to dissect the shades of realities that lie around us in the forms of tangible and intangible entities. Through that, we are empowered to speak, hear, comprehend, read, and write. This language facilitates the preservation and dissemination of our culture, knowledge systems, and folklores. It is the tool that helps us think, create, re-create, and develop innovations needed for human existence. Language is not merely a instrument of instruction but truly a scaffolding for accessibility to the storehouse of knowledge. Language is the enabling tool to name objects, forge relationships. It schools us to argue, agree, disagree, debate, and build concepts and noble notions. Now imagine a situation where this conduit is blocked with a language of dominance but having to connect to the child. This creates a problem for the child to learn this new language and simultaneously erects gaps for the child in forming and understanding new concepts and ideas. This disharmonizes the learning process and leaves an inedible gap in the minds of the learners. This renders anomie, rootlessness, estrangement, and inaccessibility. It manufactures complexes and causes emotional disturbances. Emotions, when misled, render a cataclysmic effect in the social order.

The substitution of one's language by another language becomes the precursor of a feeling of inferiority complex among the language users. The speakers tend to believe that everything that the new language has is superior in nature, and their linguistic and cultural identity shifts to the space of alienation, and a stronger sense of inferiority complex starts to build up. Any thought in the new language takes precedence over the local language, and the local languages' thoughts are stamped as folksy. Substitution of one language by the other leads to alienation but linking one language to the other leads to integration and more harmonious social, linguistic, and cultural bonding. When a bridge among languages is created, it illumines the path for an equilibrium, which otherwise is not possible. The speakers realize that his or her language is no less able to express the same thing. This gives space to integration and co-existence. This involuntarily becomes a thread of social harmony and linguistic

cohesion. This becomes relatively important in a pluricultural and plurilingual society like India. Thus, the speakers realize that a spectrum is not merely a reflection but an integration of diverse colors that constitute the complete array.

The language of the home shapes and renders the cultural awareness to the experiences of the children. It is the home language that constitutes the lived experience/s, knowledge and gives a sense of history, customs, legends, and environmental awareness. Pattanayak (1991) rightly puts:

“the purpose of true education is to link thought process of the past with that of the present and how it relates at present. It would then view knowledge as being in the service of humanity and different languages as access point to knowledge. By rationing, controlling, and manipulating language, one not only controls access to education and knowledge but in a fundamental way, distorts the history and culture of people.”

The debates generated around the notion of mother-tongue and or native language make these concepts a bit fuzzy, and there is no common ground of understanding, and thus it appears to be a confounding term. Mother-tongue has no universal definition and is loaded with various notions based on the immediate socio-political needs.

3.10 Indian Census and the Mother Tongue

Censuses across the globe, data about mother tongue have been collected with pre-determined classifications. Indian census, over time, has looked at mother tongues differently. The explanation of mother tongues over the period of time has been presented below in the chart

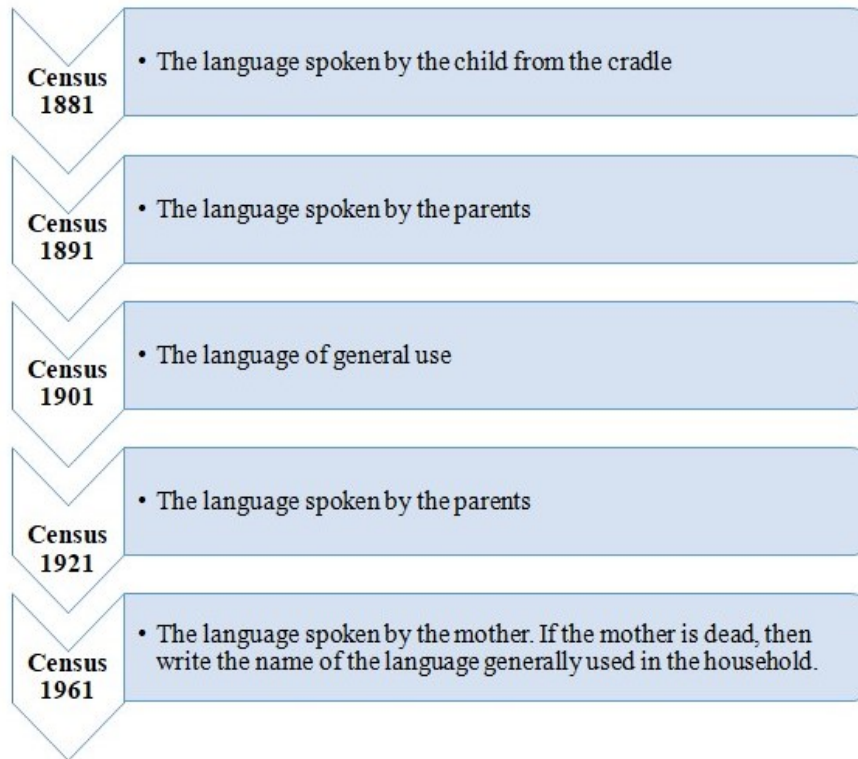


Figure 3.4: Mother Tongue and the Indian Census

The compass of the elaboration of mother language or tongue was expanded by addition of sect, place names, caste in the explanation of the same. Pattanayak (1981) states that, “other tongue is both a sociolinguistic reality and a product of the mythic consciousness of a people.”

Hence, it is evident that the notion of mother tongue lacks concrete and conclusive understanding and characterization. This has prefigured many perceptions around the mother-tongue, its notion, and definition. These diverse perceptions have given traction to research in psycho-social studies but have a microscopic contribution in the territory of education and especially MTBMLE. The lack of common understanding and a conducive definition of mother tongue have resulted in a very incoherent narrative of mother-tongue based multilingual education. It can be corroborated that wherever there is an initiation of MTBMLE, the mother tongue is necessarily taken and chosen as a minority language which has no formal script and restricted domain of linguistic and cultural domain. This issue is compounded by the diversity of lines drawn between language and dialect. Language is considered to be self-sufficient, whereas dialect is thought to be ancillary to a language.

3.11 Characterizing a Native Speaker

Indubitably, everyone has a mother tongue or is a native speaker of some language. However, when asked about one's native language, the answers come with various explanations. People have actual mother tongues and perceived mother tongues. A Muslim in India's eastern part will be considered speaking Urdu even if she speaks no Urdu at all. A young person from a Munda community will tell that his mother tongue is Mundari, even if he cannot communicate in Mundari. Native language or mother tongue is like a double-edged sword. People use it to get glued to specific ethnic groups and or at the same time, they disown their mother language or native language to forge a new identity. In the case of a state like Bihar, most of the people will tell Hindi as their mother tongue, whereas their mother tongue could be any regional languages from Bihar. Even if they say that they actually speak Hindi, this Hindi is a mixed language and is aligned to the eastern variety of Hindi with distinct sets of lexicon, grammar, phonology, and supers-segmental features. Thus, we see that the defining or formulating a native speaker of a language is not an easy job as it involves a plethora of variations and parameters around the concept.

Deliberations about mother tongues need to be seen with an interconnected discussion about the native speaker's concept: the mother tongue. Chomsky (1965), Pattanayak (1981), Paikeday (1985), Singh (1998), Kandiah (1988), Singh et al. (1995) and Davies (2003) have delineated in detail the native speaker. Singh (1998) incorporated and evaluated all this discussion. Latin' naatiivus'inborn, natural, etc. is the genesis of the word "native" During the Era of colonization it got loaded with uncomplimentary connotations. In current times too, the word has the same sense of a pejorative connotation.

If we endeavor to zoom past the concept of a native speaker, we find that Bloomfield (1933, 43) stated: "the first language of human being learns to speak is his native language: he is a native speaker of this language" Nevertheless, this whole idea seems to have a fixed compass. Anyone's first language could be stripped off by a language acquired at a later stage because the later language is more in usage and has a wider usage (davies1991). This could be encountered in the case of children who migrate to a new space with a completely different language and culture attached to that space.

Theoretical linguistics assigns the native speaker a full authority to the speakers over the grammar of their language (Chomsky 1965) and who “knows what the language is [...] and what the language isn't [...] (Davies 1991)”. What we could glean out of the theory is that a native speaker is infallible. Nayar (1994) explains that “native speakers are not ipso facto knowledgeable, correct and infallible in their competence” Nayar further holds about the native language users “as the power to err without a blemish in his competence” is hinged upon the idea that the notion needs to be reevaluated. We see that this concept of a native speaker remains baffling and perplexing and confounding.

The etymology suggests that the word “native” brings the place or country of birth in explicating this term. This entails that the person should have acquired that language from her birth (Davies, 1991; Paikeday, 1985). On the other hand, as pointed out, children could migrate to a linguistically new place at a very early age. Further, a birthplace cannot assign a child its native language necessarily as the language spoken mainly in that area may or maybe the child's language. There could be cases where the child's language is not even recognized as a language.

On the other side, one of the perspectives states that an actual native speaker is a monolingual speaker. Only polyglots have a native speaker's core characteristics because he has no other language to be a native speaker of. Likewise, this proposition does not hold much water as a monolingual too, has an array of variations, registers, and styles within the same language. Maum (2002) states that monolinguals are exceptions and not norms. So the idea that monolinguals are the real native speakers of a particular language limits the native speaker's full understanding. Here, we see that it is quite evident that this notion is not unitary in nature at all.

Scholars like Davies (1991), McArthur (1992), Phillipson (1992) argue that “a native speaker is someone who acquires the language in early childhood and maintains that language throughout”. Davies (1991) puts ahead the idea of intuitive knowledge of the language. Maun (2002), Madgyes (1992) highlighted the significance of fluent and spontaneous discourse. Stern (1983) brings in “the ability in different social settings” Davies (1991), Johnson & Johnson (1998) and Nayar (1994) assert for the language and identity of the community, whereas Coulmas (1998), Medgyes (1992) and Scovel (1969, 1988) portray the absence of a foreign accent in characterizing a native speaker of a language. Features like race (Liu 1999; Kubota

2004), creative writing (Davies 1991) are also part of the more extensive explanation of a language's nativity. The feature like race seems to be very shoddy in illustrating a native speaker. For example, a child of a different race could be adopted by a parent of a completely different race. Over time, it has been found and explained that language is a biological property and anyone under the sun can or acquire any language irrespective of his/her race, gender, religion, region, and country. The idea that native speakers can engage themselves in creative writing and produce creative writing pieces does not make much sense as writing is principally a part of literacy and languages are primarily oral in nature. There are many languages in the world which have no writing system or lack a widely accepted writing system. We find a plethora of language which are preliterate (Florez& Terrill 2003), which has only oral form and survives among its speakers through the spoken form only. Awareness to make a distinction between one's speech and the standard form of that language (Kubota 2004) is invalidated by Cook (1999) by pointing out that “any native speakers are unaware how their speech differs from status form, as shown for example, in the growing use of nonstandard between you and I for between you and me even in professional speakers such as newsreaders.” As such, the claim that native language users can find a line of distinction between the standard form and the nonstandard form seems to be driven by a much tapered explanation.

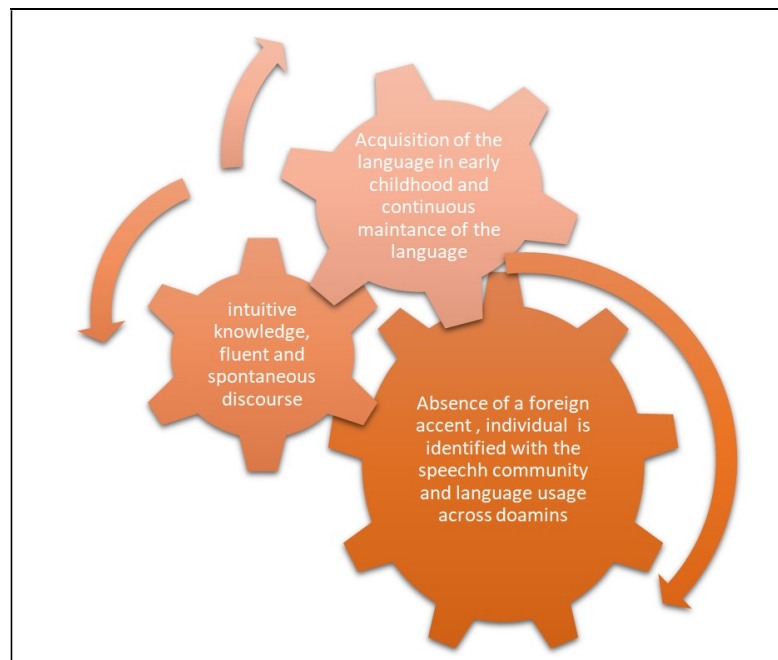


Figure 3.5: Diagram Central Features of a native speaker

Amongst all the powerful characterization of a native speaker, no single feature could be picked up as gospel or the main feature. To put it in a nutshell, the discussion that an individual who acquires the language in her early childhood, seems to be the most valid, nevertheless not without facing specific critical questions and discussions. Cook (1999) states that an individual cannot be counted as a native speaker unless the speaker has acquired the language since her childhood. Any person who could not acquire her language since her childhood is expected to have a foreign accent in her language (Scovel, 1969, 1988). Kourtizin (2000) sums up the debates by presenting his part of arguments concerning native speakers. He draws a line of comparison between his English and Japanese and states that the emotions and the sense and reference that he fetches in his English are entirely missing in his Japanese though he can speak Japanese very well. He states: “English is the language of my heart, the one in which I can easily express love for my children; in which I know instinctively how to coo to a baby, in whom I can sing lullabies, tell stories, recite nursery rhymes, and talk baby talk. In Japanese, there is artificiality about my love; I cannot express it naturally or easily. The emotions I feel do not translate well into the Japanese language, and those which I have seen expressed by Japanese mothers do not seem sufficiently intimate when I mouth them”?

3.12 Capturing the dichotomy between a native and a non-native speaker

Aforementioned discussions underline that to discern the concept of native speakers it is crucial to understand what a native speaker knows that a non-native speaker misses. When we endeavor to define and elaborate the idea of native speaker, it is evident that a native speaker must possess instinctive linguistic awareness of the language that they are native speakers of. Both linguistic and communicative competence (Hymes, 1971) have been offered as a prerequisite for being counted as a native speaker. Coulmas (1981), Medgyes (1992), and Phillipson (1996) have put forth the distinction of the appropriate use of idiomatic expressions by native speakers compared to non-native speakers. The correct form of language usage (Coulmas, 1981; Davies, 1991; Phillipson 1996), articulation in a most natural manner (Coulmas, 1981; Medgyes 1992, 1994), cultural context (Medgyes, 1992; Phillipson, 1992), a more extensive vocabulary, collocation, and other phrase logical items (Coulmas, 1981; Medgyes, 1992, 1994), metaphors (Coulmas, 1981) are some of the salient features which have

been talked about. Pragmatic and strategic competence has also been glued to the ability of a native speaker's repertoire.

The native speakers achieve pragmatic conventions not just for the sake of proper communication but also for establishing interpersonal relationships in the society where the speaker is located based on the contexts triggered by varied sociocultural practices Kasper (, 1997). Native speakers are well-equipped with tactical competence to switch between divergent verbal and non-verbal communication expertise to cement the gaps in communication channels (Canale& Swain, 1980).

Davies (1991) explains that “native speakers avoid avoidance.” That suggests that a native speaker never gives up on comprehension and or production. Avoidance is one of the major strategies, which is found among the non-native speaker. Native speakers have the following features which are absent in the repertoires of a non-native speaker:

1. “Predictions of what the interlocutor will say (Davies, 1991; Halliday, 1978)”
2. “Clarifications of message through repetition in other forms (Davies, 1991; Medgyes, 1992, 1994).”
3. “Hesitations (Brown, 2001; Davies, 1991; Halliday, 1978)”
4. “Spontaneous, fluent discourse (Davies, 1991; Maum, 2002; Medgyes, 1992)”
5. “Circumlocutions (Davies, 1991; Halliday, 1978)”

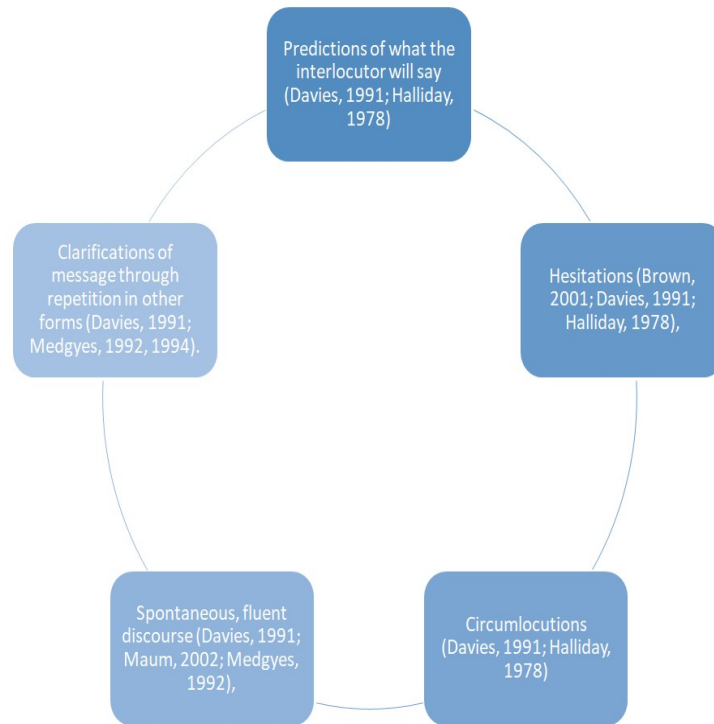


Figure 3.6: Diagram of the Salient Features Present in the Native Speakers, which are absent in a non- native speaker

Furthermore, native speakers are enabled by other verbal and non-verbal abilities of communication to abide by the appropriate sociocultural contexts in the communicative exchange with the interlocutors.

The contending dichotomy that the idea of native and non-native speakers draws stems out of discourse set by the colonizers who marked the people of the colonies as inept and proscribed tongue speakers of English (Mufwene, 1994). The broad belief is that a native speaker belongs to that country and more importantly is born in the country where that language is used. Nevertheless, conversely, we know that no child is born with an intrinsic language specifically. Chomsky (1965) delineated in detail about the native speaker.

Chomsky (1965) defined a native speaker as one who is capable of making valid judgments about grammaticality v/s ungrammaticality Chomsky (1965) affirms that “linguistic theory is concerned with an ideal speaker-listener in a completely homogeneous speech community, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions as memory limitations, distractions, shifts

of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance.” Further (Chomsky, 1965), he argues that different speakers may exhibit specific language usage differences, but any given language has optimal grammar. This very ideal grammar constitutes an ideal speakers competence (linguistic).

3.13 Reproaches

The deliberation on native and non-native speakers' dichotomy stirs very engaging and fruitful debates concerning both the formal and functional aspects of human languages. It encompasses both linguistic and sociolinguistic points of view (Medgyes, 1992). As discussed earlier, the notion of native speaker describes an idealized and homogenous presence of an "ideal speaker” Notwithstanding, within the same speech community, different varieties and registers are making the language represents just one of the varieties of many of the same language. The phenomenon of heterogeneity and varieties within the same language make it intricate to depict a line of definition around the concept of native speaker. The formal aspect of the language is not the only significant aspect of language as language is also connected with the larger gamut of social variations and constitutes its speakers' social behavior. Putting light on this aspect of social context, Carter and Seeley (2004) point out, “sociolinguistics is basically concerned with exploring how people use language differently in different social contexts” Chamber (2003) states that researches pertaining to sociolinguistics have taken a great leap in understanding and unraveling variation in language.

Taking an opposite stand from Chomsky, Hymes (1972), states that “when a child acquires a language, it is not merely the grammar that it acquires but also the grammar to acquire the appropriate usage of the language. It acquires competence as to when to speak, what to speak, where to speak, what, and when not to speak”. Hymes (1972) calls this capability to make use of the language in the social milieu, sociolinguistic competence or communicative competence. This notion of sociolinguistic competence creates a contrast with Chomsky's notion, which is of a completely homogenous speech community with ideal native speakers being part of this speech community.

Beaugrande (1998) delineates the irrational part of Chomsky's theory which talks about ideal language and not a real language, ideal native speaker and not the real native speaker. Widdowson (1998) talks in great length about the differences that exist between ideal and real language. He states that, "a language that is real for a native speaker is not likely to be real for non-native speakers. A language must be glued to a particular discourse community to be able to carry forward its pragmatic functions. It is through the localization of a language that the learners engage themselves with language in discourse." Refuting Chomsky's (1965) portrayal of an "ideal speaker-listener" in an entirely homogenous speech community, Widdowson (2003) spells out that "such an idealization leaves out of account what real speaker-listeners actually do with their language. In effect, it eliminates the variable of human agency in order to identify the invariant properties which are intrinsic to language itself." In addition to Widdowson (2003), Norton (1997) has also talked about the "ownership" of ownership in her theory of social identity. She summons to contest the view that native speakers own the language. Her theories revolve around the intertwined association between power, identity, and language learning. Besides, Norton (1997), Phillipson (1992), presents that languages are the total sum of various dialects, registers, and styles, which turns the notion of a native speaker additionally vermiculate in explanations. There are no linguistic criteria to prefer one form of the language to another socially more powerful form. The presence of heterogeneous forms of the same language expands ideological dimension to the position and draws the misapprehension of a native speaker (homogenous) who fairs a language that makes him the ideal native speaker.

Cook (1995) puts forth that a language learner should not be considered an ideal speaker nor should strive to be a; rather, the speaker should be seen as a person who employs a foreign language in her day to day communicative affair to maneuvers through various communicative goals.

3.14 Languaging and Translanguaging

Multi-competence is not addition to the already existing functional aspects of human language. This notion was explored and introduced with a view to present a counter theoretical underpinning for the dominant thought which focused primarily on the monolingual standpoint on 2nd language acquisition and the standards of monolingual

speakers were used the parameter to measure the second language acquisition. This concept has arrested the interest of not mere linguists but of professionals, language scientists and teachers. Multi-competence poses an interrogation towards conformists' notions of language, language-learners and language learning with creating a great traction for array of new knowledge on the subject.

In the realm of SLA study and exploration, the concept of human language is posed identical to the conventional tags attached such as Hindi, English, Zulu or Malay. However, we come across that a great deal of SLA researches espouse and approve theoretical methodologies that embrace language as a system of systems and a cognitive property of the human mind. The generative models if adopted into SLA research shall pose questions such as: the degree accessibility that the second language learners have towards the universal grammar that could facilitate the acquisition of the target language as the target language is understood to be a set of surface structures which have been conventionalized culturally. Universal grammar or UG has been postulated by Noam Chomsky as a set of principles which govern all the languages of world. This hypothesis by Chomsky has garnered both appreciation and critical enquiries. Burton Roberts (2006) has contested Chomsky's hypothesis of Universal Grammar and his line of enquiry. He sates, if UG is a genetic and biological endowment, it cannot relate to all the languages of the world as each language evolves historically and is shaped by the social conventions. Therefore, to believe UG as completely natural, we need to rethink it as a theory concerning all the language of the world and it cannot be a theory accounting for language which is acquired and used in cultural contexts.

3.15 The consequence of the multicompetence Standpoint

Multi competence re-conceptualizes the concept of language by raising three crucial questions from Wei (2016):

- Does the human brain possess language as a distinct and discrete component a la emotion, short-term memory, long-term memory and attention, etc.?
- Is the multi-competent mind a whole and if it is, does it divide into different languages?

Should the beam of research turn to the question of how multilinguals employ various cognitive and linguistic resources available during social communication and not to

interrogating the number of language that they know and use. This has been raised in the pretext of the notion that the human cognitive capabilities do not segregate various languages or between languages and other cognitive arrangements.

Multi-competence endorses the interrogation of “Modularity of Mind (MoM) theory” (Fodor 1983). “Modularity of mind theory” proposes that the human mind possess a slew of intrinsic neural systems which are wrapped with different information and for different purposes. Human language is one of the modules out of many in the human brain. To try to establish language only place in the brain and segregating language from the rest of the mind is inconsequential as there is no brain area completely dedicated to language/s. This has been adduced by substantial neurological and anatomic data. The brain areas which are responsible for the linguistic processing are also centre points for other non-verbal operations. Moreover, linguistic process cannot stand in isolation as it intersects with auditory and visual process. Similarly, cognitive processing of color categorization and mathematical calculation processing cannot completely stand without language. Current researches have further validated that multilingual users cognitive capabilities and linguistic experiences are closely knit and they are mutually helpful. Language, if understood from the multilingual- competence perspective will entail that it is a multimodal and multisensory system of semiotics which is intertwined with other integrated cognitive systems. As such, this view of language is akin to social systems but not without a significant stress on the porous boundaries with other cognitive systems.

The bodies of existing research suggest that the human mind cannot be separated for separate languages. It is implausible to think that they can be. Nevertheless, few earlier studies have shown that when a language is acquired later, it warrants specific neural networks that might not be central to dealing with the first language. Having stated that, it is clear that the research was more concerned with the processing and not with the representation of various languages in the human brain. The multi-competence inspires us to investigate the human cognitive capabilities as a comprehensive multi-competence and language as a multimodal and multisensory system.

The multi-competence view point has critically confronted the generally unchallenged view that bi/multilingualism is about safeguarding individual languages as the main components of identity like language and socio-cultural identity are

axiomatically considered to be inherently intertwined. Thus, one can detain one's identity by maintain one language. There are valid reasons to rethink and reconceptualize the correlation between language and identity as the line of separation between languages and between language and other cognitive predispositions bear no psychological reality. It is an evident fact that the labeling of language arbitrary and more political and ideological and linguistic.

It has been observed that there is generally an association between the nation state and sociolinguistic or cultural identity of a language. However, multilingual language users shift from one language to the other vigorously and generously to meet and operate their communicative needs. Code-switching is a common footnote in day-to-day interaction of multilingual speakers.

This composes an identity that varies from an La identity or an Lb identity. Additionally, speakers of a language utilize expression, kinesics to establish communication in tandem with the language that is being used. Therefore, in the larger gamut of multi-competence perspective, questions such as which language is being used trivial. Language cannot be a mono-sensory and mono-modal resource that humans use.

3.16 Understanding from the learners' perspective

According to Wei (2016), perhaps the most noticeable consequence of the multi-competence perspective has been in the reconceptualization of the language-learners as a valid, multi-competent language user in their own right and not in the light of the so-called monolingual native speaker. Even though the native speaker model in language teaching and learning has been repeatedly critiqued in the applied and sociolinguistics literature, in practice, the non-native language learner is often put in a situation where he or she is expected to produce linguistic forms that are identical to those produced by native speakers. Speakers own linguistic and socio-cultural knowledge and resources tend to be regarded as irrelevant, even counterproductive. Multi-competence challenges the traditional view on language and spells out that, if one uses a language, she remains always a language learner because no one can possess complete competence of a language in absoluteness. Therefore, it is more functionally applied to view language learners as language users opened to hone and develop the language over a lifespan.

Learning a new language, be it first or second, native or foreign, is always a multisensory and multimodal experience. Language learning involves complex mapping between sounds, objects, actions, and expressions and draws on auditory and articulatory apparatus and memory and attentional resources. It is also an acculturation process whereby the language learner is socialized into a culturally specific way of interpreting the intentional meaning and illocutionary force of human behavior including language use. The multi-competence perspective emphasizes the importance of looking at language learning as a multisensory and multimodal as well as acculturation process where the apparent failure to produce a target linguistic structure may be induced by a assortment of components, most of which are likely to be non-linguistic. It also opens up the possibility that language learners at the very early stage of acquiring a new language should create novel structures to communicate effectively meaning and achieve understanding. Moreover, from a language socialization perspective, language learning is a multidirectional and multidimensional adaptation process where the learner's agency is equally, if not more important, than the learning model or target itself.

Multi-competence has challenged the monolingual native speaker norm as one of its central premises. It is interesting to note how a notion as ill-defined as monolingualism became so persistent in an academic research field. Although some nation-states have a monolingual language policy and ideology, imposing one language on the whole population, such a policy and ideology usually run against the nation-state's social reality in question and only serves political purposes. We know from ample linguistic and cognitive science research that human beings are prewired for language learning. At least in theory then, we can learn as many languages as we want to if we did find individuals with a monolingual condition, the legitimate questions could be asked: what prevented them from acquiring and using other languages? However, equally important are questions about what that one language is of the so-called monolingual person – an accent, a set of words and sentences, a particular style or register, or something else, and to what level does one need to know another language in order to be described as having acquired that language – a few words and phrases, can have a simple and informal conversation, can deliver a formal speech and has literacy in the language.

From the above deliberation, it is clear that the multi-competence perspective urges us to rethink language as one of the cognitive systems and semiotic resources that human beings possess and use for communication. It includes what has been culturally conventionalized as different languages, including different writing systems and language varieties, styles, and registers. It is also perplexingly linked to other human cognitive systems. One can measure the extent to which an individual language user moves between and across linguistic codes and communication modes and ask why some language user may do it more quickly than others. Similarly, from this perspective, a true monolingual would have to be someone who cannot do any of this at all.

So far as linguistic proficiency is instanced, linguists have struggled over the years to develop commonly acceptable measures. Age of acquisition, frequency of use, structural salience, and functional load have all been found to affect one's language comprehension and production. However, the classification of advanced, intermediate, and beginner language learners/users remains mostly arbitrary. The multi-competence perspective sees the counting of the number of languages in the human mind is pointless. It sees the measuring of proficiency in different languages as mostly uninteresting and misguided as it perpetuates the monolingual native speaker norm and the myth of monolingualism.

Most of the population of the world encounters more than one language if not three during their socialization. This results in people clinging onto the dominant language and using so-called language of the prestige and power. This does not mean that they have lost the capacity to acquire and use other languages. It only raises issues of why not every language gets equal institutional support and what is the process of language attrition in cognitively healthy individuals. While not everyone may be actively bilingual or multilingual in everyday life, a true monolingual with no or minimal capacity to acquire and utilize multiple languages is rarely found.

Monolingualism has had a negative impact on society and the ideological and policy realms and has also influenced the design of research on bilingual and multilingual language users. We commonly see studies that compare bilinguals and multilingual on the one hand and the monolinguals on the other. Furthermore, the monolinguals are often used as the benchmark by which the bilingual's and multilingual's behavior is judged to be normal or deviant. The multi-competence

perspective invites us to think about research design afresh, considering different types of language users, all potentially multilingual and multimodal – and asking a new set of questions in ways in which they have not been asked before. These questions could include, for example, when, if ever, does a developing language user become aware of the different labels, usage norms, and structural differences, and what are the consequences of that awareness, or the lack of it, on language processing? How does a developing language user create new structures and convey meaning with limited resources? How does a multi-competent language user coordinate multiple semiotic resources and cognitive systems to construct and convey meaning? How do the roles of different linguistic and non-linguistic resources in language production and comprehension change over time throughout an individual's life?

From a broad-spectrum, the notion that humans are endowed with an innate capacity to acquire and learn languages appears undisputed. But the usage of metaphor like Language Instinct (Pinker, 1994) has triggered significant discussion and deliberation among the researchers and especially among the scientific community.

The debate is fueled mainly by the use of metaphor 'instinct,' which puts forward a stable patterning in animals' behavior initiated by some external stimuli. Chomsky's idea for the existence of universal grammar that readdressed the behaviorist approaches to languages would get a jolt if a language were an instinct, as explained and elaborated by Pinker (1994). Nonetheless, psychologists and psycholinguists have been vocal for the metaphor of instinct, as pointed out above. They have claimed that children's notion of language acquisition stems from 'interactional instinct,' which is driven biologically for children to attach, bond with conspecific endeavors to be like them (Lee et al. 2009; Joaquin and Schumann 2013).

This force that is biologically driven offers neural arrangements that entrain infants who are acquiring their languages. The nature and process of additional language learning by older adolescents is determined by this drive called interactional instinct, which could be impacted by the alterations of individual aptitude, impetus, and environmental settings. Interactional instinct spells out language akin to the Multi-Competence perspective that integrates compound semiotic and cognitive systems. Enfield and Levinson (2006) have argued that interaction is the foundation

of human society. It is a mutual activity that merits the involvement of two persons that triggers the reciprocal effect. Language learning and language usage are combined with a multisensory and multimodal process. The same has been punctuated by the modern social interaction mediated heavily by multimedia technology in nature. The concept of Translanguaging instinct has germinated in the background of these contexts (Li Wei 2011; Garcia and Li Wei 2014).

“Translanguaging” is not a term to replace or supplant the traditional term like code-switching or code-mixing that refer to specific language mixing behavior. When a multilingual speaker maneuvers or mediates multifarious societal and cognitive accomplishments through exercising various semiotic resources to act, to know, to translanguaging (Garcia and Li Wei 2014). In conformity with the MC perspective, there is a prominence of reciprocity between the variously understood notions of language and other systems of communications. The knowledge of language that humans possess cannot be divorced from the experience or interpersonal-relations, history, and additional socio-psychological information they possess. The prefix 'trans' signifies the following (Garcia and Li Wei 2014):

- The idea of language cascades from the socially constructed system and structure to heterogeneous systems of meaning-making and subjectivities.
- Notions of individual's cognitive structures and social structures encapsulated in the transformative capacity of translanguaging
- The re-conceptualization of language, language-learning, and use for language sciences, sociology, education, and psychology.

Li Wei (2011) defined translanguaging that facilitates imagination and ingenuity in the users of language in the following words,

“the ability to choose between following and flouting the rules and norms of behavior, including the use of language, and to push and break boundaries between the old and the new, the conventional and the original, and the acceptable and the challenging (p. 1224) the ability to use available evidence appropriately, systematically, and insightfully to inform considered views of cultural, social and linguistic phenomena, to question and problematise received

wisdom, and to express views adequately through reasoned responses to situations.”

As a matter of fact, a multilingual verbal repertoire is fundamentally a great source of creativity and criticality. This phenomenon encompasses conflicts, tussle, difference, and change in various domains, ranging from control of attention and emotions to histories and varied ideologies. The above-stated definitions by Li Wei (2001) cannot be seen in isolation from each other as one needs to be critical to augment boundaries. It is criticality that verbalizes one's creativity or imagination.

The process of meaning-making in translanguaging is multitudinal in terms of semiotic and multilingual, multimodal, and multisensory. The communication in this model is buttressed by the Principle of abundance, which is the production of as many cues as possible simultaneously in communication. Our day-to-day communication is replete with linguistic signs, phonemes, images, signs, symbols, emoticons, and pictures. Through their research, Nicholas and Starks (2014) have explained how an image of the heart is profusely used in communication to bring in a sense of affection. Taking inference from their research, we can find such examples in plenty of communication that we encounter or get involved regularly. For instance, they (heart sign) India-Gate, would be understood as 'I love India-Gate.' This could be a fundamental example of translanguaging. In the sentence above, an image of heart, which is noun, is understood and sated as a verb construction. Nicholas and Starks claim, “examples such as these reinforce the variation and creativity of speakers as they bring together multiple elements of rich and complex communicative resources.”

Data from various researches in these areas shows that even children bump into no difficulty utalizing their numerous semiotic resources to construe various forms of figurative references (Namy and Waxman 1998; Plester et al. 2011). Humans are biologically endowed to translanguange and thus have the capacity to pull as many different semiotic and cognitive resources available, which helps to deduce meaning, intentions, and design communication accordingly. Humans' instinct and innate capacity let them drive them afar the narrowly demarcated cues of languages and surpass the culturally understood language boundaries to perform better and effective communication.

3.17 Observations

Though the propensity to conglomerate all the cognitive, semiotic, sensory, and modality resources in a language is innate, there is an interdependence to rely on different resources variously in one's life span.

During its first language acquisition, a child deciphers meaning from an amalgamation of image, sound, and sound meaning mapping. The resources for introducing writing that introduces literacy is introduced later.

People tend to fuse various resources when there is a need rising from a complex communicative setting. The ability to employ multiple resources for diverse occasions and purposes renders a functional distinction of various linguistic resources and between linguistic and supplementary cognitive and semiotic resources.

The inborn capacity to put to use the various resources does not deplete over time; rather, it gets better and boosts over time with experience. The relationship between the parts (specific skills) and the whole (multi-competence) help develop critical analytic skill. This is important so that the speakers are enabled to differentiate the various means necessary for various tasks functionally.

One of the offshoots of multilingualism's translanguaging perspective has been the comparison among the languages solely in respect to attainment insignificant. What are some of the resources not available and what do language users do when one faces problem accessing those resources.

Answers to these critical questions, two concepts, namely translanguaging and multicompetence, have in the center the multisensory, multimodal, and multilingual nature of human learning and interaction.

Chapter 4

Multilingualism and Discourse

4.1 Introduction

Our interaction and communication building blocks carry a constellation of languages that range from our mother tongue and other languages that we might acquire necessitated by virtue of being the language of employment, power, and prestige. Current times show a remarkable spike in the number of multilinguals across the globe. Multilingualism that seemed to be an aberration earlier is gradually being accepted as a norm even though many countries seem to foster monolingualism (cf. e.g., Weinreich 1963; Fodor & Hagege 1983–1994), (Kalb 1999), (Coulmas & Watanabe 2001). The globe, nowadays, is encountering a tangible inclination towards multilingual communication at global as well as local levels. This situation has been conditioned by a considerable migration and intervention of information technology, traveling, *inter alia*. According to House (2003), there are two ways to maneuver through this situation: upholding the support of a lingua franca or promoting and enabling multilingual communication, which nurtures mutual understanding. The rapid migration taking place, sprinting technological advancements in communication, groups, and individuals, societies, and communities entirely driven by globalization belonging to different linguistic groups has spawned a rapid and high level of multilingual, multicultural, and cross-cultural communication. The phenomenon of people belonging to different languages and cultures trying to establish communication has permeated through most countries. This triggers interest among linguists, especially those interested in languages' structure in a multilingual setup and multilingual communication.

Communication in a multilingual set up can be characterized by the following features House & Rehbein (2004):

- Multiple languages being used for a common purpose of participants
- Individual multilingualism getting realized to address these purposes
- Multiple languages interacting among themselves for these purposes

The multilingual communication structure triggers the need among the participants to use and or switch amongst languages available at their disposal.

In a cloaked discourse by multiple linguistic codes, these codes or languages serve as the means of communication and present complex dynamics among the codes or languages. The languages used forges a relationship with other languages, engrave their dynamics upon the speakers who are using those languages by structuring their spaces of action. These multilingual communication participants turn on the associations between language and act, mental actions, observation, thought patterns, cognition, system of knowledge, etc. Each cognitive process that is part of multilingual communication- dynamic both individually and universally become significant in such a context. Owing to the contact among languages, these languages mutually influence each other that merit many linguistic features of great interest and might give rise to alterations that may create differentiated systems of multilingual communication.

Multilingualism bolsters communicative needs that might be very complex, where common linguistic traits become evident in explicit schemes and in which specific and shared, fixed and dynamic, organized, and cultural facets of divergent languages are integrated.

In a communication that consists of multiple languages, the correlation among various languages can be distributed into different classifications which are not confined to lone utterances, like the array of languages concerned, various kinds of discourses and texts, kind of media used, various kinds of social agencies and the comparative eminence of the members or participants.

The focus of research in the realm of multilingualism can pay heed to exploring and interrogating the underlying structures vis-à-vis multilingualism and the expressions stemming from multilingual discourses and communicative practices. Aforesaid researches can underscore that the particular forms that languages exhibit during multilingual communication derive from the interplay among different languages in the gamut of the multilingual discourse and communication.

Discourse Multilingualism as a linguistic fact is quite pervasive in today's social set-ups despite the widespread perception by many that speaking or knowing a single language is the norm. People belonging to the different linguistic communities

come in contact owing to the requirements of employment, migration, and a rampant sense of globalization. In several cases, sets of people who speak different languages live adjacent to one another; sometimes, there might be political demarcations that divide them, and sometimes they identify as being part of the same state or the nation; nevertheless, in all such situations, there is a contact and pertinent to communicate.

In the conquest, colonization, and immigration scenarios, speakers of one language tend to make movements in the areas where new languages are spoken.

In the situations of colonization, there is a likely situation where one language celebrates relatively more social dominance, which could trigger language shift among the speakers of languages with less socio-political power and dominance. Immigration gives rise to minority groups shifting to the dominant language within three generations. Having said that, we find the cases of language maintenance, that is, both or all the languages continue to be part of the verbal repertoire of the group of speakers. Ethno-linguistic (Giles et al., 1997) vitality proposed a framework to ascertain how likely a language will be detained or retained. In a multilingual setup, we must try to account for these three factors vis-à-vis the threat to a language that it encounters: (1) the status: economic, social, and historical; (2) the regional or the geographical spread and the concentration together with its population (3) the support buttressed by different institutes or the lack of it (Giles et al., 1997).

In many parts of the globe we can find multilinguals who have learned or acquired languages and perhaps use one or many language/s at home, another in their locality, still another for dealing with the communicative requirements of the trade or the work place and yet an additional for continuing contact with the outer world of broader social and political institutes. Mohanty (2006) describes his multilingual repertoire in these words:

“I use Oriya in my home, English in my workplace, Hindi for television viewing, Bengali to communicate with my domestic helper, a variety of Hindi-Punjabi-Urdu in market places in Delhi, Sanskrit for my prayer and religious activities, and some conversational Kui with the Konds for my research in their community. These languages fit in a mutually complementary and non-competing relationship in my life.” (Mohanty 2006, 263)

As a fact of the matter, in the Indian context, it would be perceived as an infrequent phenomenon to encounter people who do not use multiple languages in various contexts with linguistically different interlocutors and also children acquiring two or more languages from early childhood and simultaneously mastering the communicative appropriateness of those languages for one and all social contexts.

Using two or multiple languages has developed into a widespread phenomenon and increasingly become part and parcel of urban cultures across countries and regions. Fuller (2012) states that in a German-English classroom in Berlin Germany, many among the children use two languages at home, switching from German to English and English to German. However, in some of the instances in English and Spanish, or Russian and German, Setswana, or Hindi, it is considered beneficial and advantageous to master more languages. This renders positive bolstering to fellow classmates who speak a different language. Of course, this might not be the case everywhere. In her research, Fuller (2012) finds that the Mexican-American children in southern Illinois, the USA, including one the indigenous languages as their mother-tongues, were hesitant to admit the fact of being speakers of indigenous language. They had to face bullying for being the speakers of the indigenous language as these languages were attached with low prestige in Mexico, and there was a complete lack of sense of value and acceptance of linguistic diversity. This entails that while multilingualism is found everywhere, it does not always have affirmative and liberal overtones.

4.2 Multilingual Mosaic

Communication of interaction in a multilingual setup is hinged upon the relations of the languages concerned, the speakers' multilingual prowess, and the manner in which the languages are being put to use. There is a distinction between the completely developed forms and functions and the various kinds of code-switching. The group “language constellation” (Rehbein 2000), which is essential for understanding communication in a multilingual set-up, possesses these dimensions and ambits:

- “The language(s) used (L1 to Ln)”
- “The speech situation (differentiated according to discourse and text)”
- “The roles of the participants (presence or absence of interpreters, translators, cf. eg., Buhrig & Rehbein 1996)”

- “The socio-political status of the languages involved (languages concerning the whole of society; variations of the mother tongue, second or foreign language, *lingua franca*, etc.; cf. Schiffmann 1997)”
- “The skills of the participants (from individuals to groups; in a continuum from monolingual to multilingual, etc.)”
- “The typological distance of the languages involved(cf. e.g. Lang & Zifonun 1996)”
- “The degree of language separation, language mixing or switching (codeswitching; cf. e.g. Myers-Scotton 1998; Jacobsen 1998)”

As mentioned earlier, the parameters are an imperative framework for recreating a 'multilingual tertiumcomparationis' for a system of multilingual communication. These can buttress the explorations of relationships among languages in a multilingual setup.

The idea of multilingualism and text raises some of the most exciting questions. In a discourse situation that comes out of the text, the situation could be of two ways: production and that of reception, in such a way that the text must express aspects important for its reception at various points in time and probably by diverse readers (Ehlich 1983). A different form of comprehension or reception is the primary criterion for differentiating discourse and text. The ways text and discourse are imbedded in society's tradition portray the relationship between the two (cf. Cohen 1971; Halliday 1985; Bakhtin 1986). A significant part of social communication is realized through text and discourse.

Discourse is considered as a kind of speech actions which is socially organized. The same notion goes with text as well. They establish the outer form of multilingualism, and they perform in tandem that accord us to construct a cogent hypothesis about the relationship between the underlying structures of speaking and acting. According to Halliday (1989) and Ehlich (1996), both text and discourse are manner constituting the perpetuity or continuity of the “medium of language” from spoken to written. There has been an iota of studies in connection with literacy and multilingualism. Works of Verhoeven (1996); Coulmas (1996) are few which could be referred to in this regard. Each language's socio-political status contributes to acquiring multiple script and literacy that can be called multilingual in nature. The choice is not only linguistic but also concerns with the idea of power and identity.

This becomes prevalent in a multilingual setup. Formation of languages with languages could be seen as a result of individual speakers' differential oral and written abilities. And the forms that emerge can be called as variants Labov (1972) and Biber (1988). The interesting point that stems out of this is that in writing down languages, standardization (v. Gleich and Wolff 1991) process of particular language kicks off, and subsequently, that becomes one of the varieties of that particular language otherwise was always oral. Therefore, multilingualism should not only be viewed as the presence of more than two languages in an individual's verbal repertoire; it encompasses using different ways of writing. This can be called multiliteracy. In the oral form of language, literacy gets reflected in 'conceptualized literacy' (Gregory 1967; Koch & Oesterreicher 1996). These forms could be an inherent part of the discourse type, for illustration lecturer type. The changeover from oral forms to a written form and vice-a-versa, the context in the written form is not stringently glued to any specific situation compared to an act of speech product or oral forms of language.

In such a scenario, the phenomenon of multilingualism evokes the linguistic attitude that plays a significant role (Giles & Coupland 1991). As a matter of fact, the cognitive process involved in text and discourses that are multilingual is uncharted waters (Grosjean 1982, 1987). Muller (2003) suggests, it is important to have collaborative research to understand the ontogenesis of individual multilingualism.

A great deal of research has been done into institutional multilingualism in the past (Spencer-Oatey 2000; House, Kasper, & Ross 2003). These researches range from synchronization to variance (House 2000a) and contain the portrayal of emerging communicative process and practice in a multilingual set up (Koole & ten Thije 1994).

Scores of countries across the globe are hiring language facilitators such as translators and interpreters to aid interaction and communication among people belonging to different linguistic and cultural backgrounds. One of the core areas of research in the territory of multilingual communication could focus on devising tools and theories to cater to the necessities of various social institutions.

4.3 Language Processing in Multilinguals

Communication in a multilingual set up heralds an intricate linguistic phenomena and procedure as the utterances produced are generally received in a code other than the code they are being produced because of the processing of codes in diverse operation of cognitive and mental processes. According to the studies made in psycholinguistics, production and reception cannot be seen as two opposites like a top-down or bottom-up method. The probable receivability of linguistic scheme is of high significance here. Producibility is hooked to the evanescent makeup of the speech and its contriving by the interactant. Thus, producibility too warrants great significance (Fabricius-Hansen 1995, and cf. esp. Clyne 2003). The apparatus of production are “stages of action process” and “verbal planning”. Prior knowledge is a prerequisite for taking in a message. The course of receiving a message implies a prior understanding, which is attached to the perceived linguistic forms in the elucidation of lexicons that are in process.

Understanding, forming interlocutors' plan, and post history characterize essential components of reception. According to Kameyama (2004), participants ought to follow the particular processing stages for text or discourse.

The difference in the processing of decoding and encoding in communication relies on the languages constituting the multilingual setup. The dominant language influence via the process of translation underlines the inchoate alternations of original information distributing via alterations in the usage of connectives. For this reason, language-specific hearer and speaker producers will be necessitated for any interpreter.

4.4 Divergent Tongues

The phenomenon of multilingualism, contrasting languages has been one of the most effective methods. However, this contrast of languages is not in the sense which is traditionally known as contrastive linguistics (House, Rehbein 2004). The contrast of languages should be dependent upon reconstruction of linguistic structures with their corresponding practical potential. Investigating into multilingual communication can achieve fresh recognition and heights into the concerns pertaining to communication in a multilingual set-up by distinct language.

For establishing the relative functions among the languages forming the multilingual setup, “the analogous forms of expressions in the language should be contrasted one-on-one with the linguistic categories applied to the analysis of individual language and their manifestations in communication” (Johanson & Rehbein 1999).

Contrasting languages is pivotal in translation and interpretation, and it has been highlighted in the recent contrastive studies. The processing procedures that have been utilized on varying grammatical arrangements constitute an essential characteristic of textual and discourse analysis.

Intermittently, there has been discussion about an “inner” or “mental” language. These have been primarily associated with discourse or text. In such context, the function of precise features of a particular language, or in general with the inquiry of universality and/or specificity of linguistic procedures and their mutual effect in the multi-lingual discourse, posits the same question.

It is the time we revise the association between the forms of specific language and a universal linguistic principle (Gumperz & Levinson 1996; House 2000). The issue regarding the growth of individual multilingualism could be concomitant with such aspects.

4.5 Goals of inquiry into multilingual communication

Exploration of the for-function association among the languages concerned with a multilingual set up and the apparatus having multilingual communicative mechanism to essential societal architecture has become highly crucial. Hitherto, academic enquires have primarily explored the compass of diverse linguistic constellations comprising both spoken and written proficiency aspects in a multilingual set-up. Following could be some of the research areas that can provide a roadmap to the research done in the areas of multilingual communication (House, Rehbein 2004):

“Construction, interjection, morpheme, grapheme, phoneme, lexical element, etc. are getting realized from which language to which language. Here one can try to discern individual form's function, the role, and task in setting the related constellations of languages.”

“What are the extra-linguistic circumstances that govern the usage of the linguistic form? One would require observing the kinds of discourses and text, institutions, the germane social groups etc.”

“Peer into the fact that which are the extra-linguistic or more appropriately 'inner linguistic' purposes that are achieved by linguistic forms and how these are put concerning the contexts. The function and the social place of the linguistic form put to use in multilingual communication could be the preparatory point here”

“In a multilingual set up of constellation, reproducing acts like translating, interpreting, similar text production.”

“Finding out the orderly variance between related categories pertaining to the codes in a multilingual communicative set-up.”

“Display of linguistic awareness in communication pertaining to a multilingual set-up.”

Research in the realms of multilingualism must try to concern itself with whether and in what ways it is feasible to be understood by others and understand others.

4.6 Competencies and convergence in multilingual communities

Here, it is essential to state that multilinguals don't possess equal competence in all the language just because of the virtue of being multilingual; actually, that sort of parity will be counted as extraordinary. Sridhar (1996, 50) states,

“Multilingualism involving balanced, native-like command of all the languages in the repertoire is rather uncommon. Typically, multilingual have varying degrees of command of the different repertoires. The differences in competence in the various languages might range from command of a few lexical items, formulaic expressions such as greetings, and rudimentary conversational skills all the way to excellent command of the grammar and vocabulary and specialized register and styles.”

The competence in a language firmly depends upon the speakers' communicative and social requirements to use a language in different domains. The models have

multilingual discourse distinguishing factors such as topic, speakers, and setting in a multilingual setup. It also highlights that context does not control but merely influences the choice of the language/s. Multilingual tap upon the social criterion and significance pooled in a society but are not limited by them.

In circumstances where the speakers have mastery over more than two languages and use and practice them in their day-to-day needs and conversations, there may be many linguistic consequences. Among the consequences of crucial magnitude, one is the development of a phenomenon called 'language contact.' In the linguistic scenarios of a country like India, the feature of language contact is quite widespread. Gumprez and Wilson (1971) produced some of the ground-breaking works in the area of language contact. They found that in a small village called Kupwar, India populated with merely 300 inhabitants, there was convergence among four different codes or languages, namely Marathi and Urdu belonging to the Indo-European, Kannada, and Telugu (Dravidian language family). The distribution of these languages in the population was based on sociolectal factors such as caste. The Jain, the highest caste, spoke Kannada, and the marginalized caste speaks Marathi. Masses belong to diverse linguistic groups required to talk to each other and the rope-makers speaking Telugu. Muslims who speak Urdu also need to fit into this linguistic equilibrium that was emergent. Bi/multilingualism became familiar, but the most dominant language remained Marathi, which controlled the inter-group communication. Nevertheless, one linguistic consequence that arose was a convergence of the language spoken in the village, which was concerned with the syntax to maintain vocabulary differences (McMohan 1994, 214-16). The lexicons or the vocabulary serve to distinguish the groups compared to the syntax, the shape of multilingualism which has stemmed is a prominent local variation has advanced in retort to the localized and immediate needs.

4.7 Language ideologies at the crossroads in a multilingual setup

As already stated, multilingualism is quite prevalent in numerous corners of the globe, and in those parts monolingualism would be perceived as extraordinary and limiting. Nevertheless, there has been long antiquity in western societies of masses, actually disdaining those multilingual. In many such societies, power and prestige have been tagged on specific few classical languages or modern languages of high so-called high

culture. As a result of this, western societies downplay and downgrade many languages that are associated with the immigrants. This reins the view and perception of multilingualism, and the narrative about multiple languages becomes myopic. Thus, multilingualism becomes allied with inferiority.

The ideologies about multilingualism share the growth of language contact as an established turf of study, and this affects a variety of terms that are adopted to attribute to the contact phenomenon. For example, the volumes of available research use the term ‘code-switching’ in a multilingual context to evade issues like whether people are using a language or a dialect.

Various approaches to the theoretical understanding of multilingualism phenomena can also be employed to the set of data irrespective of how we classify the switching between two dialects as belonging to the same language or two separate languages. Conversely, there is also a burgeoning debate about the fluidity of code, and code is better delineated from an ideological point of view than from a linguistic one. Many scholars have switched to using multilingual discourse from code-switching or code-mixing as the later vocabulary infer a normative monolingual ideology that nudge the current trends in research pertaining to language contact and convergence. Terms like metrolingual practices (Otsuji and Pennycook 2011), translanguaging (Garcia 2009) and languaging (Jorgensen 2008), too, have been used in the realm of research in language contact.

4.8 Multilingual landscapes

A freshly surfaced field of investigation in the sociolinguistics of multilingualism concerns the notion of linguistic landscape. A Linguistic landscape is the linguistic representation of different languages in public places such as billboards, signs, dissemination of government information, advertisements, and graffiti. A linguistic landscape should not be taken as an upfront manifestation of the official prominences of the languages used, the diverse linguistic mosaic of the place, or the associations among various languages. According to Helot et al. (2006), the diversity of the linguistic landscape that a place has provides indications about the simmering ideologies in relation to specific code and its speakers. The apparent standard and value of a language is impacted and perceived by the ways in which it is being used. (Stroud and Mpendukana 2009).

4.9 Language attitudes in multilingual setup

Understanding and explaining models, which deal with how multilingual speakers use languages in context and in a discourse, is crucial to untangle attitudes about particular codes. The choice that speakers make about a code reflects how they want others to perceive them. This has been adduced with various match-guise experiments which have been designed and conducted by social psychologists. Suppose a person S is multilingual with codes X, Y, in his/her verbal repertoire, how is he/ she perceived when the choice is made to use the language Y? The experiment of the matched-guise experiment keeps the judges oblivious that they are evaluating the same person speaking other languages (in a dissimilar guise). The evaluations made are comprehended as a reproduction of the judges' ways of thinking about X and Y speakers and the approaches regarding aforesaid things as their competence, veracity, and magnetism.

The Canadian psychologist Lambert advanced this practice and method in order to discover the reactions from hearers to speech showcasing numerous attributes. Group hearers were requested to evaluate a prerecorded sample of bilingual or bidialectal speech with one language being used on certain occasions and the other on identical occasions. The evaluations hunted exhibited qualities as intellect, compassion, reliability, aim, headship, earnestness, wit. Given that the language is the variable here, the responses deliver group evaluation of users of these languages varieties (dialects) and thus draw upon social stereotypes.

In one of his studies, Lambert (1967) illustrated this with the response of Canadian men and women, mentioned as English Canadian and French Canadian as per their leading language, to subjects who, on one occurrence, used English and on another French. English guises compared to French guises received a positive reaction from both the English Canadian and French Canadian listeners. In his study, amongst the ninety-two French Canadians (FC) belonging to the first year college students coming from Montreal and eighty English Canadian (EC), he explored (1967, 95–7) the following :

- The EC evaluators appraised the female speakers and complimented them in their French guises; these female speakers were considered more intelligent,

determined, positive, and gutsy than a situation where they were speaking English.

- The EC speakers perceived male speakers more encouraging in their English guises.
- In contrast, the male FC speakers were thought to be lower in integrity and social attractiveness.

4.10 The internet and the multilingual discourse

Online multilingualism seems to be a reflection/ effect of offline multilingualism, but it should be seen as a separate domain. The essential difference between online and offline multilingualism is that in the former, literacy becomes essential. Operating a digital device and internet to communicate demands literacy as a prerequisite, hence focusing on the script. Also, because digital devices are primarily in English (Roman Script), working knowledge of English becomes necessary. These differences have severe consequences for the relation between language and script, user base, and consequent digital divide and language dominance.

Contact situations, as perceived offline, also take a different form online. In the offline domain, contacts are unavoidable, and so is the learning of new languages, convergence, and divergence among languages. Nevertheless, change primarily occurs in online domain language due to the technical medium's restraints and not contact among individuals. Internet users have the privilege to pick up content and communicate as per their native tongue. Moreover, the availability of automatic translation tools inhibits the need to pick up another language.

Also, language choice is primarily governed by technical reasons than individual choice.

4.11 Discourse features in a multilingual communication

4.11.1 What is a discourse feature?

Discourse characterizes any expression used in a context. The study of discourse looks beyond the grammatical architecture of any language or expression and excavates how certain expressions contribute in the meaning making. “Discourse in context may consist of only one or two words as in *stop* or *no smoking*. Alternatively, a piece of discourse can be hundreds of thousands of words in length, as some novels

are. A typical piece of discourse is somewhere between these two extremes,” (Hinkel and Fotos 2001). “Discourse is the way in which language is used socially to convey broad historical meanings. It is language identified by the social conditions of its use, by who is using it and under what conditions. Language can never be 'neutral' because it bridges our personal and social worlds,” (Henry and Tator 2002). With studies in multilingual communication, the study of discourse feature in a multilingual set up is important to understand how various languages establish the dynamics of communication and inter-personal relationships. Further T. Van Dijk (1998) suggests that “the context includes the participants of the communication process and their roles, goals, intentions, background knowledge”.

4.11.2 Code switching and Code Mixing



Figure 4.1 :Being a bi/multilingual is nice, Image retrived from <https://susanornbratt.com/category/family-life/> date: 25/10/2021

One of the primary characteristics of a multilingual person is her ability to mix and switch from one language to another from her verbal repertoire. When a multilingual person communicates with another mono/multilingual person with a different language or same language/s, the process of switch occurs to facilitate the overall communication. Hymes (1974) describes code-switching as “a common term for alternative use of two or more languages, varieties of a language or even speech styles” while Bokamba (1989) delineates it as : “code-switching is the mixing of

words, phrases and sentences from two distinct grammatical (sub) systems across sentence boundaries within the same speech event.”

Examples of code mixing and code-switching

“*Isliye abh har schools me ye activities start ho kardiya*, because tenth is based on that only, class ten, you have to do lot of debate, declamation, recitation.” (“Therefore, now, in every school, they have started these activities...”)

“*To mujhe call karna, anē ke bād*” (“So call me after you’ve arrived”)

“*tū mere ko usme bhējnā, phir reply karnā, thīk hai?*” (“You send me [an email] on that [email address], and then reply, ok?”)

“*agar yahan ke lōg khudi apne ko apni help karnai ke sōcle...*” (“if the people from here started to think about helping one another...”)

The dialogues (1) to (4) above (cited in Klingler 2017:46) represent instances of code-switching in old and young Hindi-English bilinguals' repertoires. “Code is the neutral umbrella term for languages, dialects, styles/registers etc. (Chloros, 2009:11) and code-switching (henceforth CS), in the broadest sense, can be defined as the mixing of two languages in a discourse, as seen above”. Chloros(2009:4) defines CS as “*the use of several languages or dialects in the same conversation or sentence by bilingual people*”.

In Code mixing, code is the broader rubric, which means language, dialect, style/ registers, etc. Code-switching or CS could be defined as mixing languages in a discourse induced mainly by the conversational or discourse strategy. Chloros (2009:4) describes CS as “*the use of several languages or dialects in the same conversation or sentence by bilingual people.*” Much research pertaining to the areas of Cs and discourse state that CS is an intentional practice. Gumperz (1982) underlines CS as a pragmatic function. Poplack (1980) calls CS as the pivotal characteristic of highly proficient bilingual abilities and can occur at all the linguistic levels such as phonetic, phonological, lexical, semantic, syntactic, and pragmatic. CS is not confined to oral discourse but can take place in texts as well. One of the significant reasons that bring CS into the speech or writing of speakers is that language mixing is a natural phenomenon.

The process or the CS phenomenon was loaded with loads of stigma, and it was considered an aberration. This was mainly an offshoot of the thought of languages being pure. Many scholars termed CS as random linguistic behavior (Weinreich, 1953, 1968). This was seen as bilinguals having depleting proficiency in either of their languages. Scholars like Weinrich, who have done seminal works in language contact have illustrated the idea of an ideal bilingual as someone who has the ability to oscillate or switch from x to language y following the germane alterations during the communication. However, it is not at all within the same sentence.

Nevertheless, the research engagements in the areas of language contact, bi/multilingualism, that CS is a common phenomenon which is an integral part of the discourse strategy of the people who are bi/multilingual. CS can take place in the same conversational situation and even in the same sentence. It has an architecture which is a complex functional and grammatical principles, and they are entirely rule-governed.

Structural and sociolinguistic approaches are two of the most debated and studied approaches with the specific methodology that have attracted the attention of researchers and scholars interested in language contact and multilingualism. Pfaff, 1980; Poplack, 1980, 1987; Myers-Scotton, 1993, 2008;; Muysken, 2000; Bhatia & Ritchie, 2016; among many others explored the structural approach whereas (Myers-Scotton, 1993b; Auer, 1998; Lüdi, 2003; and many others investigated the sociolinguistic aspects of CS. Sociolinguistic approach concerned itself with how meaning is encoded and decoded through CS usage and what kind of discourse functions it caters to and, on the other hand, structural approach to CS primarily examine CS's characteristics involving the devising of structural constraints on where switching can occur intra-sentential positions. It has tried to ascertain the arrangements underlying CS's grammar and whether these patterns or arrangements are language-specific or belong to the languages in question. The Sociolinguistic approach tries to bring clarity to the fact why bilinguals talk the way they do. Both these approaches are integrative and complementary to each other as both concretize the prevailing theories of multilingualism.

The sociolinguistic approach has underlined many reasons for the occurrence of code-switching in multilingual speech and with the multilingual communities. Baker (2001:104) presents some of the reasons for CS:

- To highlight a specific point in a talk
- Substitution of a word in a different language as that word is not known in the language being used
- To put across an idea that has no corresponding notion in the cultural gamut of the other language that is being used
- To underpin a command. For example - a teacher repeating a command to the students.
- Clarification of a point by repeating it in the other language
- To re-tell a conversation to a monolingual individual
- To interrupt a tête-à-tête
- To alleviate tension and insert humour and wit into a conversation
- To keep out someone from a conversation
- To put across solidarity with a particular ethnic group

From the purposes mentioned above, it is evident that CS, as a linguistic phenomenon, portrays vital power and social metrics in a community.

Two of the structural theories pertaining to CS are considered crucial. Poplack's (1980) work provided an impetus to the study and research of bilingual data in nature. Poplack proposed the equivalence and free morpheme constraints. Equivalence constraint asserts that CS occurs at the syntactic boundaries, which is part of both the languages, and the free morpheme constraint proscribes switches after bound morphemes. Poplack (2000) classifies extrasentential, inter-sentential, and intra-sentential as three different categories of code-switching of a tag element in the base's monolingual discourse, language is attached to extrasentential CS. Switching between sentences denotes the category of intersentential CS, whereas intrasentential CS is concerned with the switching within a sentence. This was earlier proposed as 'constituent insertion' (Poplack&Sankoff 1988).

Adding to the volume of ideas and research in the area of CS, the notion of matrix language Frame was propounded by Myers-Scotton (1992, 1993a). Myers-Scotton characterizes code-switching as "... the selection by bilinguals or multilingual

of forms from an embedded language (or languages) in utterances of a matrix language during the same conversation” (p. 4). One crucial assumption of this model is that there is no difference between the notion of borrowing and the idea Code-switching. That means there is a dissymmetry exhibited that is there amidst the “matrix language and the embedded language”. This limits the participation of linguistic elements in code-switching to content morphemes.

Over time, research in the areas of language contact has generated much traction. Nevertheless, this area has courted many controversies and debates. The language contact phenomenon has been termed with various nomenclatures ranging from “code-switching, code-mixing, code-alternations, and borrowing”. The central point of debate has been the dissimilarity between the notions of code-switching and borrowing (Poplack, 1980, 1981; Myers-Scotton, 1992, 1993b; among others) and code-switching and code-mixing (Kachru, 1978, 1983; Sridhar & Sridhar, 1980). Many scholars have tried to delineate these terms in their ways and with their understanding and theoretical corroborations. Code-switching has been used as a cover term by Myers-Scotton (1993 b), where it has been explained as alternations of linguistic varieties during the same chunk of communication. The term has been attributed with the proximity within the same speech exchange of passage of speech concerned with two dissimilar grammatical skeleton or subsystems by Gumperz (1982: 56). Auer (1995) prefers code-alternation to code-switching. The notion of code-mixing has been utilized like a hyponym to comprise borrowing and code-switching by Pfaff (1979) and Muskyen (2000). In 2000, Muysken offered three distinct processes constrained by different structural conditions: insertion, alternations, and congruent lexicalization.

Insertion and alternation highlight the structural constraints on mixing. Insertion envisages constraints in terms of one language's structural assets, which is the matrix language; alternations interpret constraints in structural equivalence between the languages involved. For example, switching can occur only where it does not interrupt the languages involved' structural solidarity (Poplack 1980). Insertion could be called spontaneous lexical borrowing, and depending on language, it may have single bare noun or phrases, which are adverbials. Alternations encompass both grammar and lexicon, and it could be considered a dedicated switch from one language to the other. The notion of ‘Congruent Lexicalization’ is concerned with a

circumstance where two concerned languages have the structures of grammar which can be cemented lexically with components from either of the language. It is akin to style-shifting and variation within a language.

Linguists like Kachru (1983), Sridhar and Sridhar (1980), and Bokamba (1988) have separated code-mixing from code-switching. Inter-sentential switching is considered as code-switching, whereas the intra-sentential switches are underlined as code-mixing. Bokamba (1988) writes, “the two phenomena make different linguistic and psycholinguistic claims..... [code-switching] does not require the integration of the rules of the two languages involved in the discourse whereas codemixing does”. These inter and intra-sentential switches are also known as insertional CS, and alternational CS (Myers-Scotton, 1993a; Muysken, 2000; Olson, 2012, 2016), and they have been connected with the hypo- and hyper-articulation theory (Olson, 2012, 2016). It has been argued by Olson (2012) that insertional CS takes place where the speakers towards the monolingual end of the linguistic continuum.

On the contrary, alternational CS occurs when the speakers are functional in a more bilingual mode. Hence, insertional CS may be less predictable compared to alternational CS.

The discussion on code-switching and borrowing has stoked loads of debates (Bentahila& Davies, 1992; Winford, 2003; Poplack& Dion, 2012; among others). Polack et al (1978, 1980, 1981) delineated borrowing as “morphosyntactic and phonological integration of foreign words into the recipient language”. They offered three parameters to explain the guest position words in the base language. These comprise phonological integration, morphological integration, and syntactic integration into the base language. They proposed that if a lexical item showed (1) integration at syntactic level or (2) integration only at phonological level (3) no integration at all, it signifies an occurrence of CS.

Conversely, phonological integration principles were later terminated due to its gradient nature (Poplack et al., 1988). Nonce borrowings (Poplack et al., 1988) have also been discussed and talked about. It has been explained as morphologically and syntactically integrated lexical items or morphemes bound which may or may not reflect phonological integration. They fail to fulfill the parameter of the prevalence of usage or scale of approval, unlike established borrowing.

As such, lexical borrowing from established borrowing to nonce borrowings spans a continuum. Researchers like Myers-Scotton (1992, 1993) have eschewed integration criteria to extricate borrowing from CS. She espouses that borrowing and CS are entirely related concepts and constitute a single continuum. She has stated frequently as the only criteria to relate borrowed items to the matrix language. She differs from the view that all borrowed items fill up lexical gaps in the matrix language. Myers-Scotton is insistent that few borrowings are cultural borrowing where the guest lexical items are new to the matrix language and without any corresponding lexemes in the matrix language, and others are core borrowings. Here the guest lexical items have corresponding items in the matrix language. They do not cater to any lexical requirement in the matrix language.

All the montage of studies pertaining to the areas of language contact and bi/multilingualism (Muysken 2000, Poplack and Dion 2012, etc.) conclude by underling that it is not an easy job to determine these categories, especially for single word insertions sans the diachronic data and the integral obscureness of the distinction itself. There is a kind of continuity between code-mixing and borrowing where the boundaries might be discernable, however, it is challenging to delineate the gigantic majority in the middle, particularly for single words.

There is a colossal amount of research on code-switching ranging from grammatical constraints on CS at various levels of language to the functional aspects of human language impacting CS. The consequences of CS at the level of segmental and supra-segmental phonology remain a germane area of interest and research.

Chapter 5

Locating phonological features in a multilingual set-up

5.1 Introduction

In this chapter, an attempt has been made to discuss in detail the phonological processes and research in the context of multilingualism. Through discussions and reflection on the subject, it has been tried to explore different works done so far in the areas and how these works bring out the significant contributions in the area of multilingual competence.

The repertoire of a multilingual person manifests many linguistic features, which are absent in monolinguals. As the phenomenon of multilingualism has gained momentum in recent times, research from different perspectives has generated interest among linguists and researchers working in different intersecting areas. In recent times, phonologists have shown keen interest in how the nativization of loan words takes place in the repertoire of a multilingual.

The influence of multilingualism cascades from socio-psychological to structural aspects. Many languages borrow a plethora of words from other languages which is induced by contact and convergence and with the advent of time; these borrowed words become integrated with the borrowing language displaying some phonological deviations from the origin of the words. Loan phonology bolsters our knowledge about the phonological grammar.

5.2 Borrowing and Loanword

Due to burgeoning advancement in the realm of information technology and the pervasive presence of social-media, smart phones and globalization, the contacts among various cultures, countries and languages have become rampant. This has precipitated the borrowing of words from one language to the other, primarily from more dominant language to the dominated language. Contrary to this, we have seen how some of the dominant languages too have borrowed heavily from various languages. Thus, Borrowing is a common phenomenon. English has borrowed profusely from various languages and many of the words of English are of foreign origin. Words such as “*Juggernaut, Bandh, Chutney, Hartal, Samosa*” etc. have been

from and now are part of the English vocabulary. Borrowing at the level of lexicon is a common process across language. This process of borrowing creates and produces many linguistically significant process and outcomes. When lexicons enter from one language to the other, they undergo changes and modifications aligning with the phonological and phonotactic architecture of the language to which they are borrowed. As we know, each language is distinct from another as it has a different set of segmental, suprasegmental features (pitch, stress patterns) and phonological constraints. For examples, a speaker of a language which does not allow consonant clusters in the onset position of the syllable will trigger mandatorily a change so that the word borrowed aligns with the phonology of the language where the word is getting borrowed from. Speakers of Eastern Hindi, pronounce station as [isteisən] as /st/ consonant cluster is not allowed in this variety of Hindi to occur at the onset position of a syllable.

Amidst all this, one of the most striking outcomes is the set of loanwords which bolsters the communication and facilitates the intercultural communication. This has rendered a notion of “Scale of Receptivity” and subsequently an “Index of Adaptability”, which respectively mean languages that can readily and easily accept borrowing and a group of languages which can absorb the borrowed items into its phonological architecture.

The study of linguistic borrowing intersects with various sub-areas of linguistics (Whitney 1875, deSaussure 1916, Hockett 1979, Lehmann 1962, Pedersen 1931, Anttila 1989). The whole gamut of linguistic borrowing encompasses different kinds of borrowings and loanwords are one of them. When speakers of language encounter new notions and ideas pouring in from different language, they have several linguistic options at their disposal. These options have been enumerated by Hockett (1958) as the following:

Loanword

Speaker of a language accommodates or borrows a lexical item or the concept of an entity from different language. The item that is adopted or borrowed is a loan word.

Examples: Words borrowed from English into Hindi Language

- skul(School)
- steifən (Station)

- redio (Radio)
- hiro (Hero)
- trein (Train)

These items gradually get subsumed in the grammatical (phonological) patterning of the recipient language. A word like ‘station’, which is pronounced as /steɪʃən/ in English, but when used by speakers of eastern Hindi the speakers pronounce it as /iste:ʃən/, as /st/ cluster is not allowed at the onset position in Eastern Hindi

Loanshift

Loanshift is when native words are assigned novel meanings. Examples of this process include a word like ‘Easter’ which before its current meaning denoted “pagan dawn goddess carnival”.

Loan-translation

Loan translation is known as Calque as well. Loan-translation means where there is a one to one use of the native version of the original. ‘Lehnwort’ has been (loan) translated as loan-word.

Loan-blend

Loan-blend as the nomenclature itself suggests that there is a blend of two elements. In loan-blend, in one of the forms is a loan-word whereas the other form is a retained from the native language.

All of these four sets constitute the notion of borrowing but, the prime discussion in this chapter remains the loan word and its phonological architecture.

Words borrowed from English into Hindi are the followings

English Word	Adaptation
• /bɒtl/ ‘bottle’	/boʈəɪl/
• /saɪkl/ ‘cycle’	/saɪkɪl/
• /teɪbl/ ‘table’	/tɛ:bəl/
• /kɒtn/ ‘cotton’	/kɒʈən/
• /steɪʃn/ ‘station’	/iste:ʃən/

- /bleɪd/ ‘blade’ /ble:d/
- /bʌlb/ ‘bulb’ /bəlb/
- /skul/ ‘school’ /iskul/
- /steɪʃən/ ‘station’ /istesən/

5.3 What is Loan Phonology?

Loan word phonology has generated a lot interest for academic investigation and has provided an insight into the grammars of a language especially concerned with the phonological aspects of linguistic structures. The seminal works by Leonard Bloomfield, Roman Jakobson, Edward Sapir, and N. S. Trubetzkoy on phonemes could be said to be the primary inspiration for the studies about borrowings and phonology. The research in the domain of loan phonology hinges on the basic concept that the phonological architecture of a language is filter for the users of a language, which subsequently forms perception. Additionally, it describes not only the sounds of the speaker’s language but also the sounds of other language. This heralds what is known as phonological DEAFNESS (Polivanov, 1931). Chomsky and Halle’s (1968) book “The Sound Pattern of English” has inspired and has provided much research input to examine hypotheses pertaining to borrowings on the aspects of phonological process and representation. Some of the works are by Hyman (1970) and Lovins (1973). Contemporary research has been motivated by the experiment from phonetic issues to phonological approaches.

Some Examples:

Eastern Hindi

- /bleɪd/‘blade’ /ble:d/
- /bʌlb/‘bulb’ /bəlb/
- /sku:l/‘school’ /iskul/
- /steɪʃən/‘station’ /istesən/

Malayalam

The following English words are used in Malayalam with the phonotactics of Malayalam.

- /'fæʃən/ (English) → [fjaʃənə] (Malayalam) = fashion (j- insertion, ə-insertion æ->a

The phonological alterations are the vowel /æ/ changes to /a/, there is /j/ insertion in the onset of the word initial position. /ə-insertion/ at the end of the word.

- [bʊk] → [bukə] = “book” (ə insertion at the end of the word,
- [bəl'u:n] → [balu:ŋə] = “balloon” “n → ŋ (n changes to retroflex ŋ in Malayalam, and also /ə/ insertion at the end of the word
- [səl'u:n] → [salu:ŋə] = “saloon” n → ŋ, ə insertion at the end of word
- ['sɜ:.kəs] → [sarkkasə] = circus, k^h->kk (there is germination of aspirated velar plosive, ə insertion at the end of the word.
- /'ɒf.ɪs/ → [a:fi:sə] = office (ɒ --> a:, ə insertion at the end of the word)
- /tɔ:tʃ/ → [tɔ:rʃʃə] = torch, t^h → t, ʃ-->ʃʃ germination of insertion at the end of the word.
- /'bʌ t.ər/ → [batʃarə] = butter, a → ʌ/ (t^h-->tt germination, ə insertion)
- /'dɒk.tər/ → [dɔ:kətʃarə] = doctor, (d-->d, retroflex, t^h-->tt germination, ə insertion, t^h--> tt

5.4 Linguistic consequences of loan phonology

Phonological studies and researches are generally centralized around exploration of patterning of segmental and suprasegmental features of language/s and also finding the typologically (phonological) interesting facts vis-à-vis different languages. The system of markedness captures the speaker’s awareness about the patterning of sounds of his respective language. Markedness encapsulates the harmony and well-formedness among segments. The speaker’s access to this information is enabled by the patterning of the sounds in respective language/s.

Markedness of language could be understood by scrutinizing the typological arrangements among various languages.

Nevertheless, the phonological knowledge that we are able to gather from the study of patterning of sounds and the examination of similarity and dissimilarity among languages leaves some of the fascinating facets untouched and unexplored, questions such as the following: How does a speaker learn a typologically deviant

pattern in a comparatively shorter episode of time (Dell et al. 2000), How constraints pertaining to typology are not impediment in learning the phonological regularities? (Steriade 2003a).

Additionally, there may be a bunch of phonological awareness that cannot be solely observed from the data only internal to their language. For instance vowel like [i] is not allowed to occur before another vowel in French. This gets reinstated by glide [j] in nearly all the cases. The same goes for clusters of consonants as well sequences (e.g., *lier* [lje], *pierre* [pjɛʁ], *Erasmien* [ɛʁas.mjɛ̃], *anxieux* [ãk.sjø]). In the case of obstruent liquid sequences, the segment [i] is preferential over the glide [j] (e.g., *Hanovrien* [a.no.vri.ɛ̃], *plier* [pli.e]). There is no explicit data to account for this as most obstruents and liquids occupy the complex onsets of words in French language. Added to this, there is no data in the native phonology of French to account how the French speakers assume the constraint * “[j] after obstruent-liquid sequence” over “the constraint j] after complex onset” (Steriade 2003a).

Contrarily, there is evidence to show that speakers may be completely oblivious and may not have access to information that can be understood from the native phonology of the respective language. Japanese language adduces this with examples from past tense formation rule. Such rules are inadequately applied in the case of unaccustomed verbs, though the unaccustomed verbs are well-formed in terms of phonotactics and seem like native verbs of Japanese language. Steriade (2003) highlights that, “the grammar of Japanese past tense alternations is apparently harder to control than is indicated by the regularity of their application in the native Japanese lexicon.” Therefore, we see that there is a separation vis-à-vis the notions of competence and performance, which can only be captured with the exploration and interrogation of loan phonology.

5.5 Theoretical background: Important Issues in Loanword Phonology

5.5.1 Level of Representation of the Input and the Output

The study of loan phonology encompasses many interesting facets of phonology, especially the level of representation and the input and output which revolve around the notion of representation.

To study the mapping of input to output segments warrants further serious research. Questions such as: whether this is completed on a phoneme to phoneme

basis or phoneme to phone basis need to be studied further. To put it other way, is it solely phonemic information from the source language utilized to assemble the loanword phonology input, or are supplementary phonetically significant characteristics incorporated as well? Do speakers, on the flip side, just pay heed to information in a detailed sequence of non-native input that is phonemic in their own language? Furthermore, is the perceptual input mapped simply onto segments of the borrowing language, or may non-phonemic allophones of the borrowing language be accessed too?

For instance, both in English language and in Burmese, aspirated and unaspirated voiceless plosives are there. In spite of that, in Burmese, these two stops or plosives are two distinct phones; whereas aspirated plosives behave as allophones in English. These stops occur at the onset position in a stressed syllable in English. If we try mapping the input of English to Burmese output, the outcome would be English [p^h] ->Burmese [p] in the case of phone to phoneme or phone to phone mapping. Contrary to this, if mapping is done a phone to phoneme or phone to phone, this shall render English [p^h] -> Burmese [p^h]. But If the scenario were flipped, and English were the borrowing language, a phoneme-to-phone mapping or phone-to-phone mapping of Burmese input to English output would end in Burmese [p^h] -> English [p^h], because the aspirated plosive allophones of English would be adaptable here. A phone-to-phoneme or phoneme-to-phoneme mapping, on the other hand, would render Burmese [p^h] -> English [p], because only the phonemic, underlyingly aspirated stops of English would be available. (from Chang, C. B, 2003)

5.5.2 Foundation of the Input

One of the variables in loanwords nativization is form of input; speech or writing. It is interesting to inquire whether loanwords are adapted or borrowed from speech or writing. Suppose, we consider writing to be the input, it will have some, if not grave influence stemming from the orthographic representation. If the input comes through speech, then does it come from a native speaker or a speaker speaking the source language as L2? Consider, if the source is from the speaker whose language is L2, there will be certain and significant difference in input from what would be there in source where the language is a native language. We need to mark that the input might be sourced directly from the native language or by an intermediary language.

Therefore, loanword's structure will mimic effects of the intermediate language if the loanword has come from a language which is L2.

5.5.3 Driving force of Adaptation

When we are talking about different aspect of loanwords, the agents of adaptation too need to be considered significantly. These could include a multilingual with good competence in each language, a bilingual with good competence in both the language or relatively better competence in one of the languages. This could also be a monolingual having no knowledge about the source language. In balance multilinguals or bilinguals to whom the underlying representation is available, so phoneme to phoneme or phoneme to phone mapping is expected to be feasible, whereas in the cases of monolinguals, it can depend upon the phonetic input of the speech lacking any phonological arrangement.

5.5.4 Character of the Input

The level of phonetic elements and facets must be taken into consideration that is present in the input. Particularly, are quick, laid- back speech source of the input in which certain segments are likely to wane from the pronunciation. On contrary, if the input is highly careful or slow speech then some of the characteristics may get overemphasized. This is concerned with the notion of perceptual salience.

5.5.5 Chronicle

The diachronic perspective should be considered too when exploring the phonology of loanwords in a language. There could be various grounds for the difference in older loanwords compared to the new entrants of loanwords in a language. One of the reasons, the phonology of the L1 or the native language has changed over the time and thus it has influenced the loanwords differently in different periods of time. Apart from this, words which have been borrowed long back might get more closely engrained into the phonological system of the native language. This could be because of their strong integration into the system of L1 phonology and the loanword is nearer to the core lexicon than the border of the respective language (Salanova 2002a). Various causes might alter with the advent of time. The source of input may be diverge from one period to the other owing to change in social and educational scenario.

5.6 Arrangement of the Loanword Phonological System

The process of loanword nativization may be an outcome from the effect of the general doctrines and principles of universal grammar, phonological system native to the borrowing language or from an independent “interlanguage” system that may be a combination of the both. The grammatical system that captures the loanwords will have an influence on the loanword adaptation per se. the phonological alterations which are employed in the loan words are anticipated to be motivated by the shape and sequences of the native language phonology if the loanword phonology essentially mimics the native L1 phonology. On the contrary, if UG dominates the loanwords, then it is imperative to have an output demonstrating the emanation of unmarked characteristics which is not there in the native language or the L1 features (Broselow et al. 1998, Shinohara 2000).

5.7 Earlier Approach

There have been various models pertaining to loanword nativization. These models have tried to account differently for stages of nativization or adaptations. These models elaborated comparative significance of features like the proficiency of the borrower concerned with the source language and also the accuracy of speech perception vis-à-vis various language or cross language.

5.8.1 Two-Stage Model

Silverman (1992) proposed a loanword adaptation model with input as the “acoustic signal”. This signal is processed at two levels; the first is the perceptual level. At this stage, the parsing of the hitherto non-linguistic input into segments occurs, which is further mapped onto native the sounds or the phonemes of the native language. As Silverman states that is “concerned solely with providing a preliminary, perceptually based ‘raw’ representation for incoming forms.” Operative level belongs to the second level of this model. Operative level is the input to which is the output of the preceding Perceptual Level. This scansion allows the imposition of the native phonological constraint over the input. Apart from this, at the operative level, a process which might be missing from the native grammar though contributed by Universal Grammar, might apply. Here it is important to underline that the operative level is concerned with the supra-segmental features such as syllable and feet whereas perceptual level is attached with segmental constraints or phonotactics.

One of the conspicuous arguments of Silverman's model states that phonological awareness of the source language is overlooked in the process. He adduces this claim from Cantonese loanwords. He presents the Cantonese speakers' inability to access the phonological representation of the inward loanwords. And thus the knowledge or the function of a bilingual in a loanword nativization is nominal. Thus is it evident in Silverman's model that, the agents of adaptation don't possess information about the syllable structure in foreign input and therefore they must supply their own makeup for the output at the Perceptual level as the agents lack access to a phonological representation of foreign input.

5.8.2 Theory of Constraints and Repair Strategies

The Constraints and Repair Strategies (TCRS) theory (Paradis, 1996) mainly stems from two principles; first one is the preservation principle and the second one is the Threshold Principle. The Preservation principle states that "segmental information is maximally preserved, within the limits of the Threshold Principle" whereas the Threshold Principle presents that "all languages have a tolerance threshold to segment preservation" and that "this threshold is set at two steps (or two repairs) within a given constraint domain." Paradis's model is driven by the notion that in the process of borrowings the deletion of phonemes or segments is comparatively exceptional. If a foreign or non-native segment in the Theory of Constraints and Repair Strategies (TCRS) oversteps phonological constraints of the native language, it can be compensated by complete deletion, transformation or by insertion of a new segment.

On the other hand, the deletion of a segment occurs only when the amount of repairs that is imperative to detain the segment outstrips the threshold of two repairs as hypothesized by Paradis. In the case of deletion the most aberrant segment which warrants three or more repair steps, shall be expunged. Thus, a commonly preferred notion fosters segment preservation to segment deletion.

Apart from this, Paradis also reiterates that the introduction of borrowings into a language is chiefly induced by those bilinguals who can access the phonological architecture of the source language L2. Further, Paradis claims that these bilingual borrowers omit the phonetic information of L2 that are non-distinctive in L1. However, the particulars which are distinctive in L2 are included. There is a twofold

phonemic filter that the phonetic output has to encounter to turn into the input the loan phonology.

5.8.3 Grammar of Perception vs. Production

Kenstowicz (2001) in his seminal research work outlines two forms of grammars; namely a grammar of perception and a grammar of production. According to this framework of grammar as drawn by Kenstowicz, speakers can decipher and hear certain phonological dissimilarities (e.g., /l/ vs. /r/) even if these distinctions do not exist in L1. However, the speaker won't be able to articulate or recall these segments. If a concrete cue is missing and the perceptual apparatus is not in tandem with to attend to them, other dissimilarities will be missed by perception. Hence, many causes must be factored in to understand the perception of the input as perception is not simple as mapping of a phoneme to other. The source language has undeviating effect on perception side with regard to the physical signal that is accessible to be signaled out by the borrower. In the grammar, faithfulness constraints are ranked around a fixed core of markedness constraint rankings. This model presents that the adaptation or nativization is controlled chiefly by factors which are perceptual (Kenstowicz 2003).

5.8.4 Perceptual Similarity and the P-Map

Carrying forward the Grammar of Perception vs. Production (Kenstowicz 2001), Steride's (2002) postulated Perceptual Similarity and the P-Map. Steride's model shows the prominence of perceptual factors in nativization. This similarity is the foundation of all the faithfulness constraints along with few markedness constraints. There is a formalization of information of perceptual resemblance in the perceptual map (P-Map). This perceptual map or P-Map is an integral part of competence which facilitates the language users to decipher the comparative of two distinct phonemes in any given context. It is on the ground of perceptual similarity that perceptual map reckons faithfulness constraints which are arranged with regard to each other. A faithfulness constraint will be ranked higher if it puts together two segments which are set apart by a larger perceptual distance in a given context. However, if the faithfulness constraint pairs two segments which is separated by a smaller perceptual distance, it would be ranked lower compared to the one mentioned earlier. Thus, it is evident that substituting an aberrant segment with a comparatively dissimilar segment is a poorer choice than substituting it with a comparatively related sound is

programmed within the constraint. Note that these faithfulness constraints may ordinarily be obscured by other factors that impose upon the lexicon, whereas loanwords, which at first are free from lexical forces, provide the appropriate environment to see these faithfulness constraints in action.

5.9 An overview

There are predominantly two models in the theoretical framework of loan phonology. One of them is proposed by LaCharite & Paradis (1997, 2005) and the others. This theoretical framework propagates that the adaptation in loan words is accomplished by bi/multilinguals, who have dual accessibility in the phonological competence in both the languages namely, L1 and the L2, to distinguish segmental correspondences at the level of phonology. When there is an absence of same phonemic counterpart, then the most proximate sound segment or phoneme is preferred where the distance is with reference to distinctive feature functional in the grammar of the first language of the speaker.

Contrary to this, an alternative notion has been propagated within the Optimality Theory framework. Optimality theory framework envisages loanword alteration as depending on the phonetic out-put of the language 2 which could be either a raw acoustic signal (Silverman 1992) or constantly in a universal grammar based transcription of assorted grades of varying degrees pertaining to details and abstraction.

To make the loan sound aligns with the sound of the native language, the adapter take into account various determinants, whilst detaining its faithfulness to the origin or source of the loan. This encompasses orthography and the phonetic properties which are prominent for the speakers of L1, notwithstanding their contrastive status in the L1 or L2 grammars.

For instance, a speaker S of the recipient language (first language) borrows a lexicon from the lexical repository of the donor language or Language 2. Paradis and Tremblay advance the idea that the speaker S re-accesses the underlying form of the word that is borrowed from his/her L2 longstanding memory and grinds it through the grammatical rules or constraints of the L1 system to generate a surface form.

In doing so, a number of repair strategies will be used to allow the surface form to conform to L1 templates: the borrowed word will be nativized according to

the grammatical system of L1, its PHONOLOGY. On the basis of a well-known, extensive database of loanwords constituted at Laval University, it is argued that phonetic details are not central to the adaptation of loanwords, which is essentially driven by phonological constraints.

By means of a data base of five hundred stops incorporated in three hundred seventy one borrowings from English language into Chinese, Paradis and Tremblay illustrate that stop aspiration which is usually considered allophonic in English has no influence on phoneme classification in Mandarin Chinese, regardless of the verity that the latter makes a phonemic distinction between aspirated and unaspirated stops. Mandarin Chinese speakers should be predisposed to distinguish aspirated from unaspirated stops (e.g. pit [ph It] from spit [spIt]); but what they do is map all English voiceless stops onto aspirated stops, although stops in English voiced sounds render a set of unaspirated stops in Mandarin Chinese which are voiceless.

An opposite position is defended by HYUNSOON KIM in ‘Korean adaptation of English affricates and fricatives in a feature-driven model of loanword adaptation’, which takes into account that L1 speakers possess changeable competence in the second language, including the possibility that they have poor or no knowledge of L2.

When there is a borrowing of word/s from a source language into the lexicon of the borrowing language, loanwords go through alteration to adapt to the borrowing language phonology. This singularity is called loanword adaptation. This is considered as a good source to understand and unravel the nuances of the borrowings language phonological grammar. Conversely, Dupoux (2003) postulated an alternative proposition and proposal. According to this, proposal, there is no Underlying representation to surface representation mapping for the phonological grammar. However, the mapping takes place at the level of perception of speech.

Research has shown that the loanword adaptation model is highly confined in its approach and methodology. To understand the nature of loanword phonology, it is important to have an integration of phonological grammar and perceptual factors. (Yip 2006, Kenstowicz 2004,)

There are mainly two models to account for the loanword adaptation. Carole Paradis and her co-researchers (2005) are of the view that those bilinguals who have

the ability to make use of their competence in both the L2 (donor language) and L1 (recipient language) to separate resemblance in the grammatical structures adapt loan words. This hypothesis primarily hinges upon Sapir (1925) that the interpretation and perception of sounds by the speakers in their respective languages occur with regard to its underlying (phonological) structure, which is crucially a phonemic representation. This assertion is concerned with the view that the equivalences are shaped at the phonological level of the two grammars. Therefore, these equivalences omit allophonic (Predictable) attributes which is annexed by post-lexical rules. Phonological awareness is above this level. Where there is an absence of alignment between the prosodic and phonemic structures of the concerned languages, the loan is re-fashioned to the nearest existing option which is measured with regard to the phonological features functional in the receiver language and the position in prosodic arrangement and feature geometric.

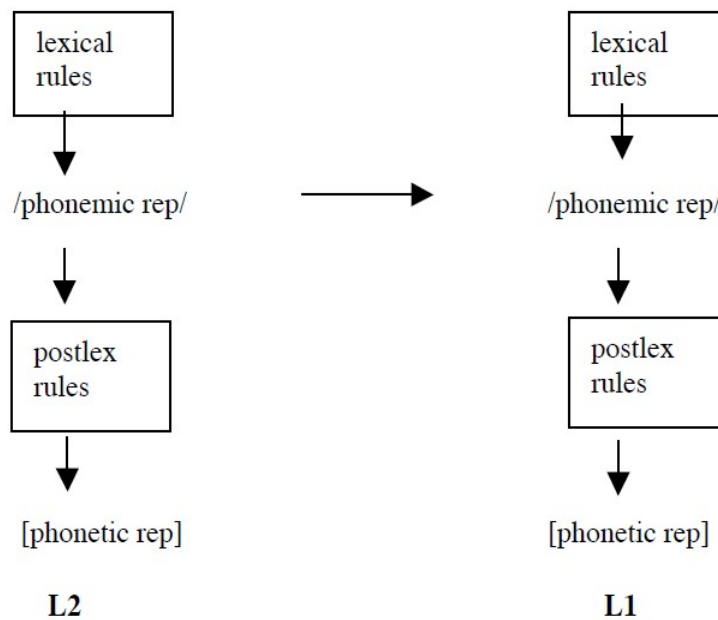


Figure 5.1 : Kenstowicz, Michael. (2005)

Perceptual approach is the second approach, propagated and proposed by Silverman (1992). this model or approach recognizes the input for the loan word adaptation as chiefly phonetic. This information is strained by adapters by using the glass of respective native phonological categories amalgamating non-native dissimilarity and eschewing non-noteworthy information. This altered input is dependent upon constraints stemming from the native grammar. The altered input could be considered

exactly as a native input (Jacobs and Gussenhoven 2000) as an alternative it might be subject to unique alteration specific to the loanword phonology. This occurs commonly in an attempt to detain more clue and information from the source (Yip 1993, Kenstowicz 2001/4).

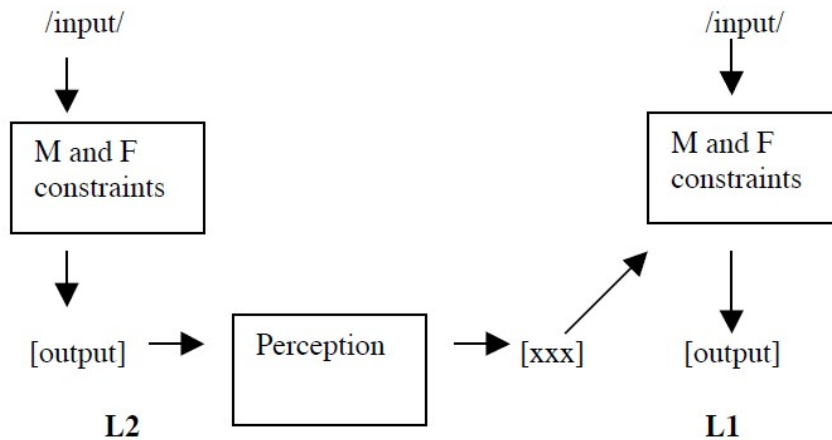


Figure 5.2: Kenstowicz, Michael. (2005)

The framework of grammar in Optimality theory has markedness and faithfulness constrained which are ranked in a certain way in each language. Loanwords in this model are also ranked in the set of markedness constraints as the words from native language. Importantly, the loans vary with regard to the ranking of faithfulness constraints. These faithfulness constraints, which are loan sensitive could be called Output-output constraints.

As discussed above, loanword adaptation requires the native speakers to align the foreign words with the phonological architecture of their respective language. In recent times, it has generated loads of interest because of its implications for phonological theory, multilingualism and Universal grammar. This renders as an insight as how the speakers utilize the phonological systems of their native language and how this awareness intersects with the auditory perception of the sounds of the other language. Here, it is imperative to highlight that there is little agreement on the whether phonological or phonetic factors govern the operation of adaption of non-native words. There are contrastive views on this. One group of researchers is of the view that the nativization is significantly phonological (Paradis & LaCharité 1997). Zooming in even further, It is believed that adaptation relies upon the precise interpretation of the phonemic groups of the Language 2 harmonized to the featurally

nearest phonemic categories of Language 1 speakers who borrow. The substitutive view proclaims that this adaptation is fashioned by auditory perception and is essentially phonetic (Silverman 1992; Peperkamp & Dupoux 2003). According to this view, adaptation depends on the parsing of the input L2 acoustic signal of the borrower and mapping it onto auditorily similar L1 phonological or phonetic categories.

5.10 Prosody of Information Structure

In this section, I deal with the prosody of information structure of Narrow Focus and Givenness in declarative sentences in Malayalam and Eastern Hindi Bilinguals with English as one of the languages in their verbal repertoires. As a matter of fact, our discourse is loaded with features from language that we use. Researchers have shown that these features switch from one language to other in a multilingual discourse. The study has been carried out with the help of the production experiment *a la anima* test (this task of experiment tries to juxtapose the various types of focus induced by different questions Dik 1981, 1997).

Confirmation, selection, informational, and correction aspects of focus in the realms of narrow focus are the prime concern. The intended answers were in the canonical SVO order. For the selection and confirmation process, yes or no questions were used, and subsequently, Wh-questions were part of the methodology for information. The data (answers) were semi-spontaneous.

For example:

- “In front of the garden, is a girl hitting a tree?”
- “In front of the garden, yes, a girl is hitting a tree.”

Separate questions were devised for object and subject focus. The study endeavors to examine acoustic correlates such as minimum, maximum, and mean pitch, minimum, maximum, and mean amplitude along with the duration of given and focused information. The initial study that is discussed in this section shows that focused subject or the focused nominal is getting relatively higher pitch when compared to the given nominal. Nevertheless, a higher pitch is not playing a significant role in the event of object focus. Regardless of focus on subject/object, a higher pitch is exhibited by the initial constituent. If the object is focused, it has a final slight pitch

rise at the end (more extensive study is needed). Amplitude is always slightly higher in the subject position. The subject has higher loudness in all the utterances. Compared to the given, the focused part gets more duration.

Data of “narrow-focused utterances” and “broad focus utterances” data are not analyzed are yet to be analyzed.

An experimental study tries to examine the prosody of intonation and information structure in Bihari and Malyalam varieties of English. Speech is always coded with the information covered in the prosodic forms. The manifestation is through frequency and amplitude. This work peers into the following questions:

- In the Bihari and Malyalam varieties of English locating the prosodic correlates of narrow focus.
- In Bihari and Malyalam English, how do the patterns of intonationsalletrs in normal and focused utterances.

Information Structure

“The way a sentence sounds reveals its meaning.”

The concept of meaning has created lots of traction among linguist. Here, in this context, we can say that ‘how an utterance sounds reveal its meaning’. Intonation and information structure have every so often linked together. The use of a particular intonation contour is described with reference to the function or meaning of a sentence which has the information packaging. According to Drach (1940), intonational features have two functions. First, it is significant for underling the semantic relations in as morphology, particles, and word order. Secondly, intonation can express meaning proper.

Focus/background

Given/new

Question: What does John drink?

	Background	Focus	
Answer:	John	drinks	mango smoothie
	Topic	Comment	Comment
	Old	Old	New

The notions of information structure used in this presentation

“Focus is understood as the part of a sentence eliciting a set of alternatives relevant for the interpretation of discourse. Several kinds of focus are distinguished: mainly information focus (answer to a wh-question), confirmation focus (to confirm the information), correction focus (the suggested answer is wrong and needs to be corrected).”

The constituents are characterized by Givenness that have been stated in question and gets repeated in the answer

Focus has been characterized differently such as

Information focus that garners an answer to Wh question

Confirmation question that confirms between yes or no

Correction focus concerns with the rectification of yes/no alternative questions. The constituent which is already mentioned in the question characterizes givenness and the same constituent is repeated in the answer as well.

5.10.1 Main objectives

This section endeavors to find out how focused constituents have prosodic features that differentiate them from given constituents in Bihari and Malayalam varieties of English. The study is motivated by previous study in Delhi Indian English (Fery and Pandey, 2012)

Constituents that are focused, do they have prosodic features which differentiate them from given constituents in Indian English varieties. (Malyalam language speakers and Bihari Hindi speakers)

According to Harnsberger (1994, 1994) Moore (1965), Dyrud (2001) have claimed that focus has three prosodic effects; a greater intensity, longer duration and a higher excursion could be exhibited by the rising pitch patten, Secondly, a phrase break may occur after the focussed element and The pitch range may get compressed or completely flat and or deaccented post- focally (Harnsberger and Judge 1996).

Both in English and german: a higher Fo signals the focus on the pitch accent, and reduction of the Fo occurs in the post-focal region.

5.10.2 Previous works on prosodic correlates in Indian English varieties

Ferry and Pandey (2012) Delhi variety of English show the following characteristics in the acoustic correlates of focus.

F0 or the fundamental frequency: There is no effect of focus manifested by the subject. When given, the object was lower but this effect stands insignificant.

Intensity: Compared to the object, the subject is always louder. (both dBmax and dBmean), This effect is significant but there is not significant effect of focus. Compared to the subject, the object is significantly longer.

Duration: Focus too has an effect but it is confined to the subject: when the subject is in focus, it is longer compared to when it is given. There is no equivalent effect for object.

Phrasing: When nuclear accent is non-final, it is rising. In Indian English, there is enclitization of the article.

5.10.3 Experimental method

The study performs an experiment to see the characteristic of prosody in three kinds of focus; correction focus, information focus and confirmation focus. The experiment is based on I. Task Animate elicited with the questionnaire QUIS of the SFB 632 in Potsdam (Vol 4, 2006)

5.10.4 Procedure

The informants are given four images consisting of simple actions (involving an agent and a patient). There is an instruction to the informant to observe the stimuli and remember the details that the figure is presenting with the event captured through the image. When the informant is ready, the stimuli is taken off. There are four questions that the informant is supposed to reply which are concerned with the stimuli. The informants are already instructed to reply in complete sentences.



Ravi (Right)

Priya (Left)

Figure 5.3 : In the picture the female is named as Priya (Agent) and the male is named as Ravi (patient)

Two factors are there in this experiment for focus constituent; agent and patient. Priya; agent is the one performing the action and Ravi; patient is the one who experiences the outcome or the consequences of the action by agent. The focus type are new information focus (IS), selective (S) or corrective focus (C). Thus asymmetries of the focus type and/or asymmetries of the focus domain: word order and/or prosodic properties.

Stimulus: “Picture of Priya (Agent) hitting Ravi (Patient).”

Stimulus: Picture ; “Latha hitting Ravi”

ConditionIS: In front of the blue sky: Who is hitting (Ravi)?



Priya

Ravi

Datasets

Small datasets obtained by 4 BHE and 4 MHE native speakers, for the present study. Slight changes have been made by giving name to each character instead of girl/boy as there in the original experiment. This has been done to elicit disyllabic objects and subjects compared to monosyllabic words likes ‘girl or boy ’. It will help to get a clear realization of syllable prominence in “Focused and Given constituents”.



Priya

Ravi

For the presentation we use 4 Bihar Hindi speakers and 4 Malayalam speakers, the data has recoded in a studio room in JNU using Soni digital recorder, in a sampling frequency of 44 Hz 16 bit

Method

Data has been organized into 2 group. Total of 64 utterances were used for analysis 32 for Bihar English and 32 for Malayalam English

- “Confirmation subject (CS)”
- “Confirmation object (CO)”
- “Information subject (IS)”
- “Information object (IO)”

Selection subject and selection object has not taken for studied as result were incorrect in Bihar Variety of English

The sentences were cut and the labelling was done by using the software PRAAT. There were boundaries to separate all subjects and objects. Based on Pierrehumbert (1980) tone has been marked for each utterance to delineate and describe the phonology of intonation.

- “Analysis and Discussion”
- “Word Order”
- “All answers were uttered in the SVO order”
- “BHE M1 CS : Yes Latha is hitting Ravi”

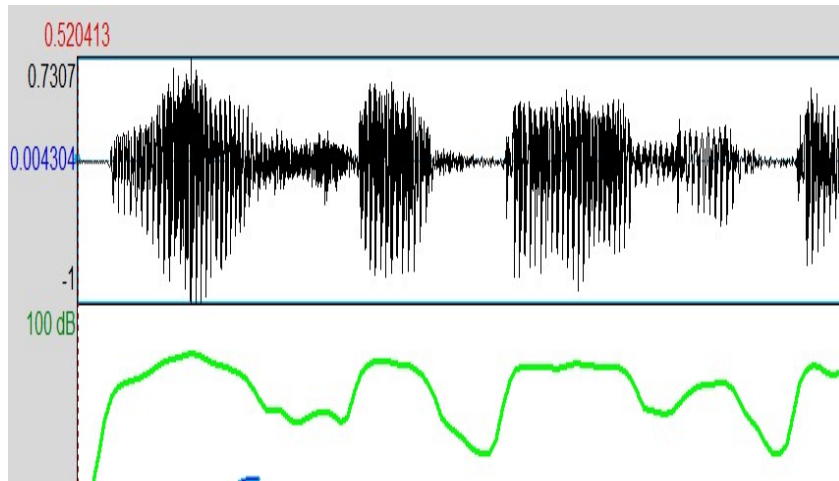


Figure 5.4: H- High Tone L- Low Tone, Mid-Mid Tone, %-Intonational boundary

Figure 5.4 Wave form, intonation pattern (blue line), intensity pattern (green line), annotation of word order, tonal structure of utterance based on AM model of Phonology.

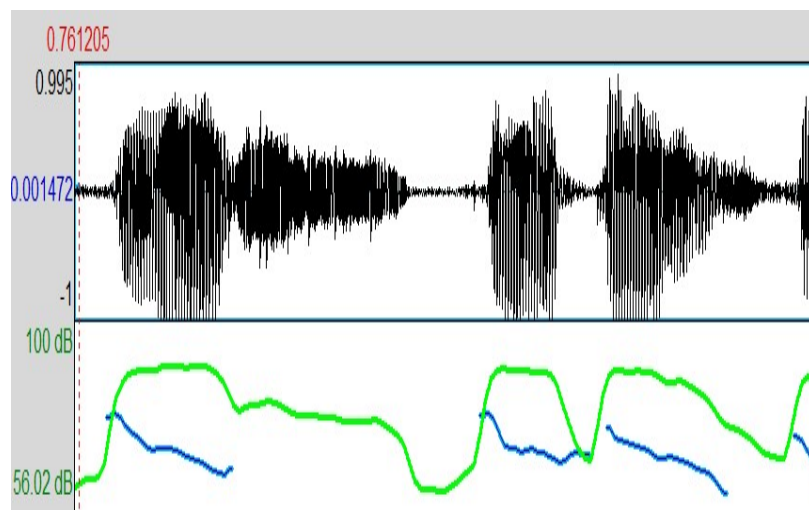


Figure 5.5: Wave form, intonation pattern (blue line), intensity pattern (green line), annotation of word order, tonal structure of utterance based on AM model of Phonology

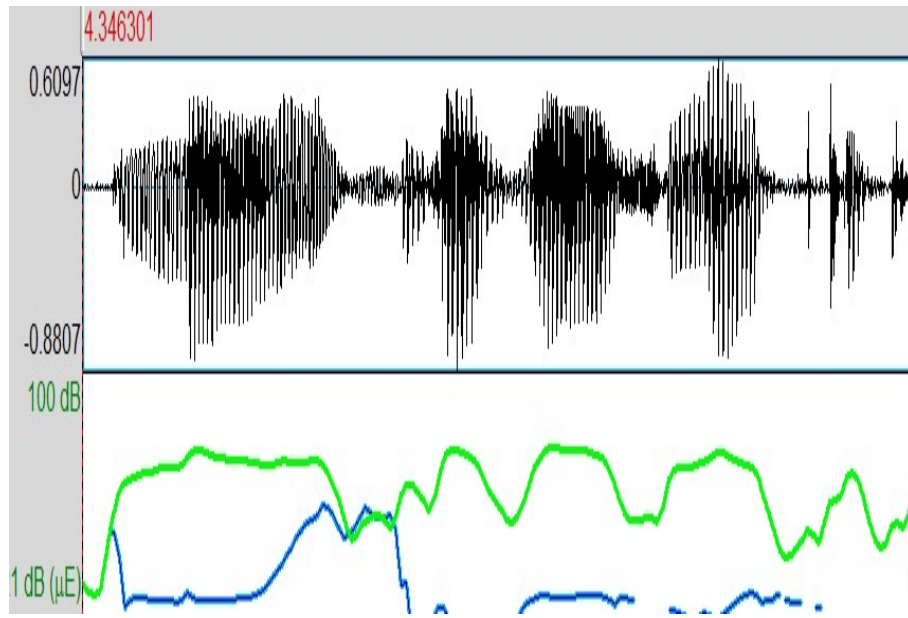


Figure 5.6: Wave form, intonation pattern (blue line), intensity pattern (green line), annotation of word order, tonal structure of utterance based on AM model of Phonology.

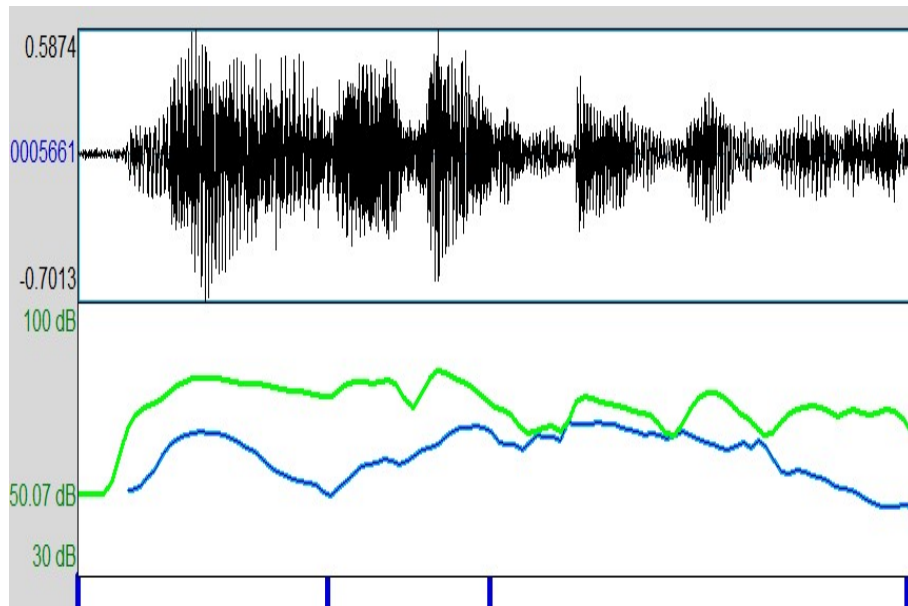


Figure 5.7 : Wave form, intonation pattern (blue line), intensity pattern (green line), annotation of word order, tonal structure of utterance based on AM model of Phonology

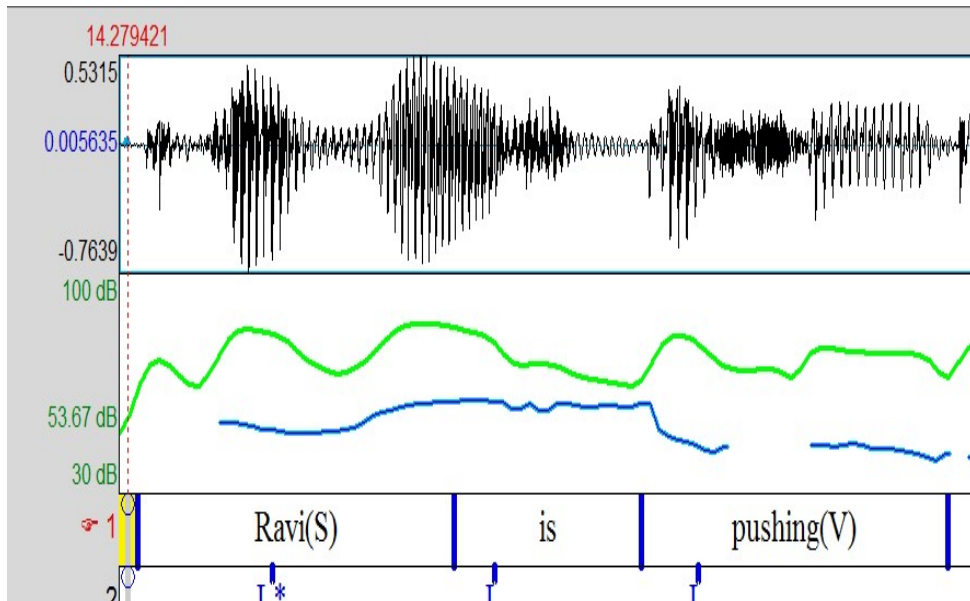


Figure 5.8: Wave form, intonation pattern (blue line), intensity pattern (green line), annotation of word order, tonal structure of utterance based on AM model of Phonology

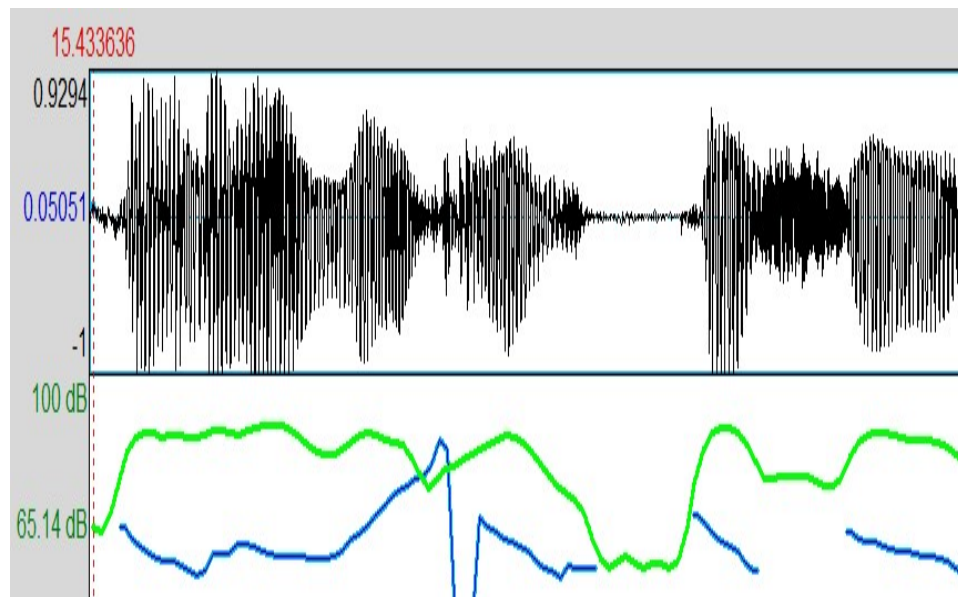


Figure 5.9 : Wave form, intonation pattern (blue line), intensity pattern (green line), annotation of word order, tonal structure of utterance based on AM model of Phonology

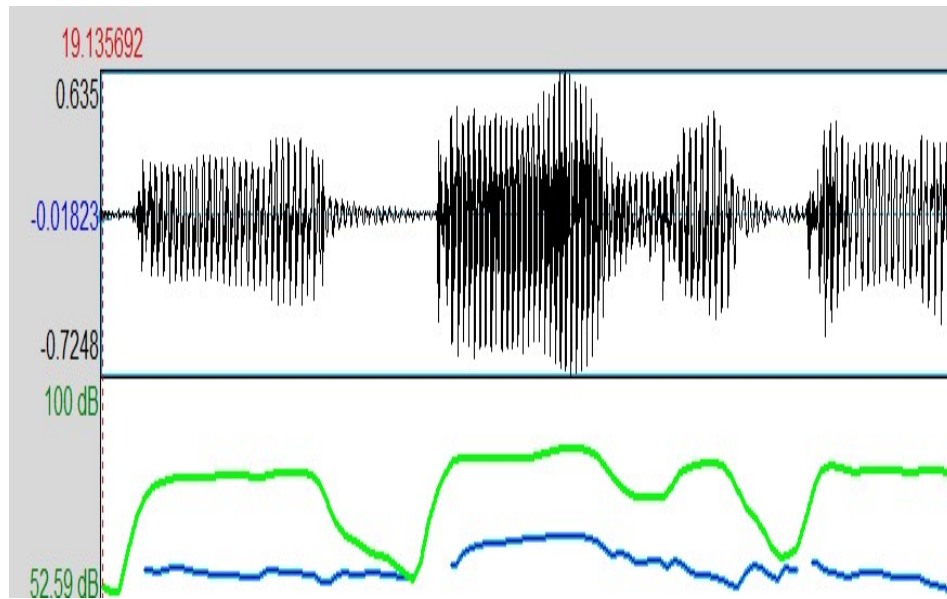


Figure 5.10: Wave form, intonation pattern (blue line), intensity pattern (green line), annotation of word order, tonal structure of utterance based on AM model of Phonology

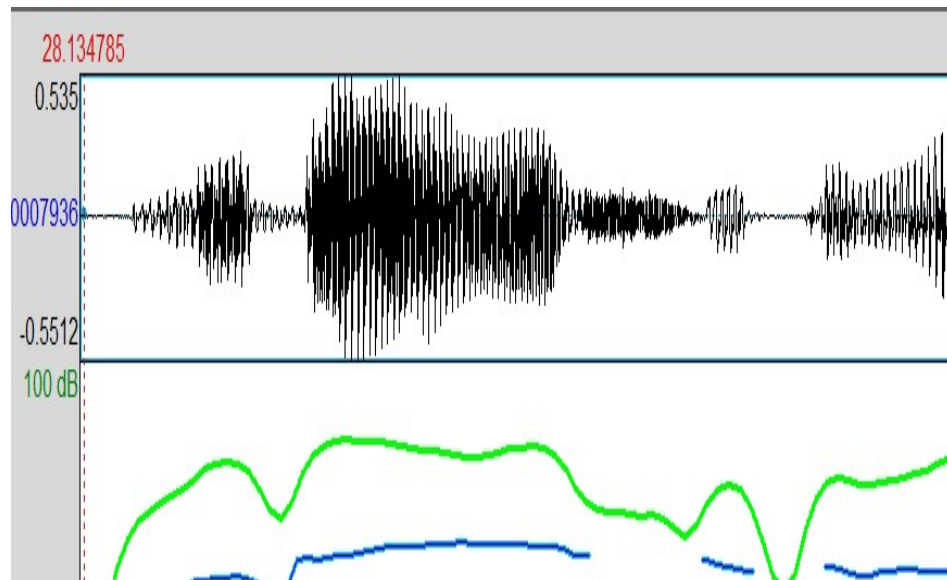


Figure 5.11: Wave form, intonation pattern (blue line), intensity pattern (green line), annotation of word order, tonal structure of utterance based on AM model of Phonology

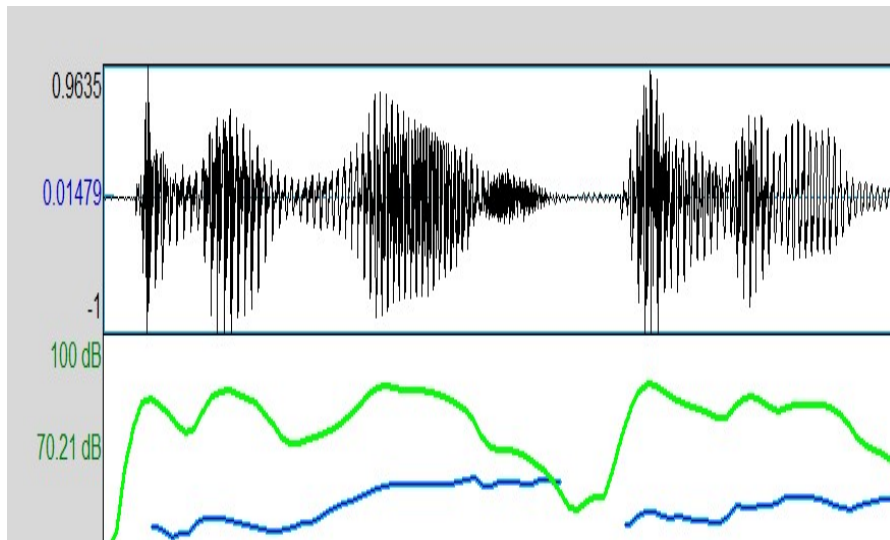


Figure 5.12: Wave form, intonation pattern (blue line), intensity pattern (green line), annotation of word order, tonal structure of utterance based on AM model of Phonology

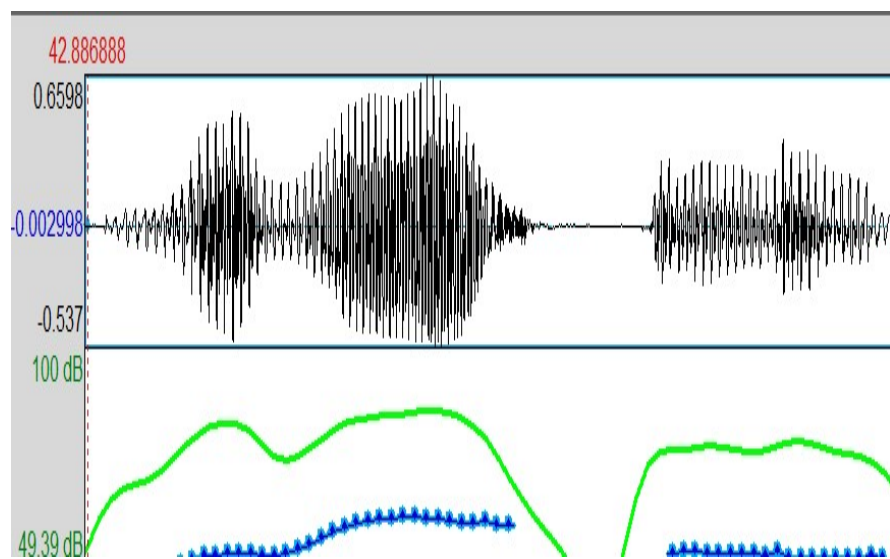


Figure 5.13: Wave form, intonation pattern (blue line), intensity pattern (green line), annotation of word order, tonal structure of utterance based on AM model of Phonology

- Results on F0
- No significant role being played by F₀ or pitch accent
- Irrespective of being focussed or given all subjects have relatively higher pitch
- The F0 in the subject that is unfocused is lower compared to the F0 on the focused subject
- Both of the varieties exhibit similar results.

STATISTICAL EVIDENCE FOR F0

BHE: Average of Female speakers on CS

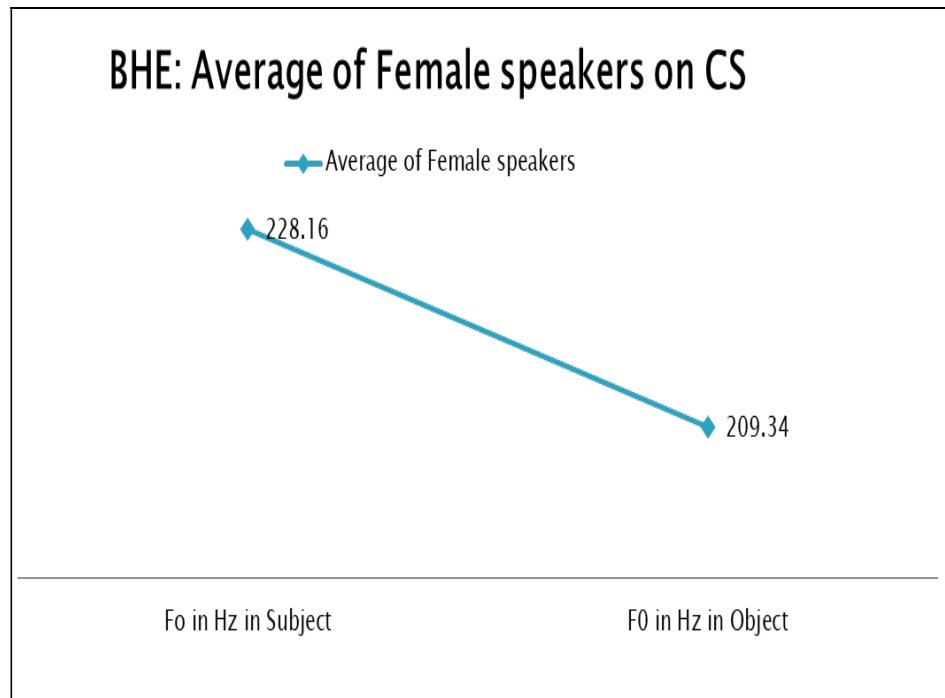


Figure 5.14: BHE: Average of female speakers on CS

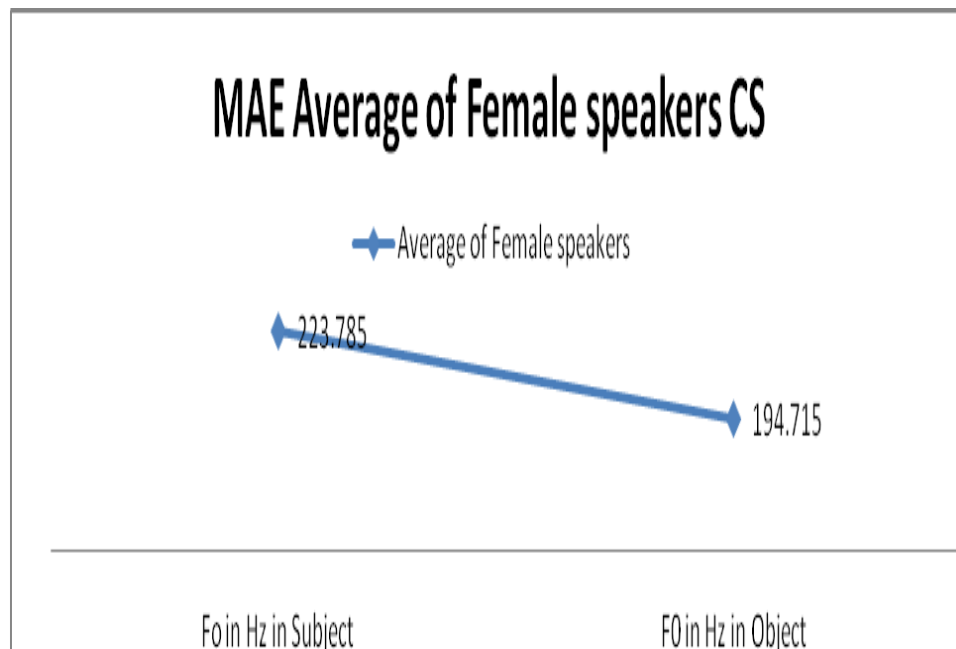


Figure 5.15: MAE Average of Female speakers CS

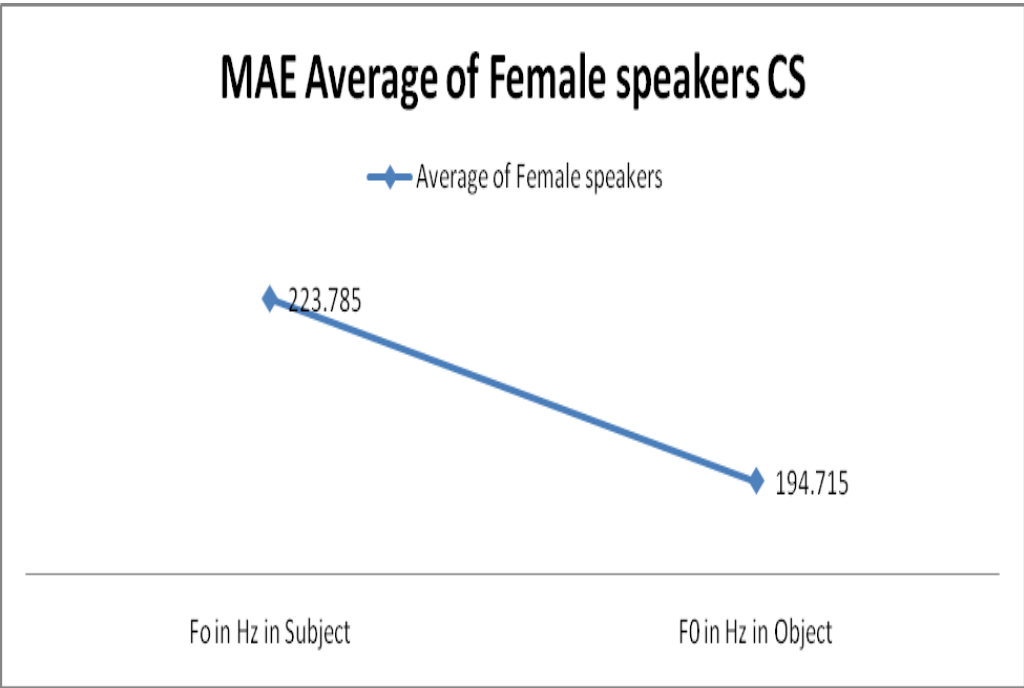


Figure 5.16: MAE average of female speakers CS

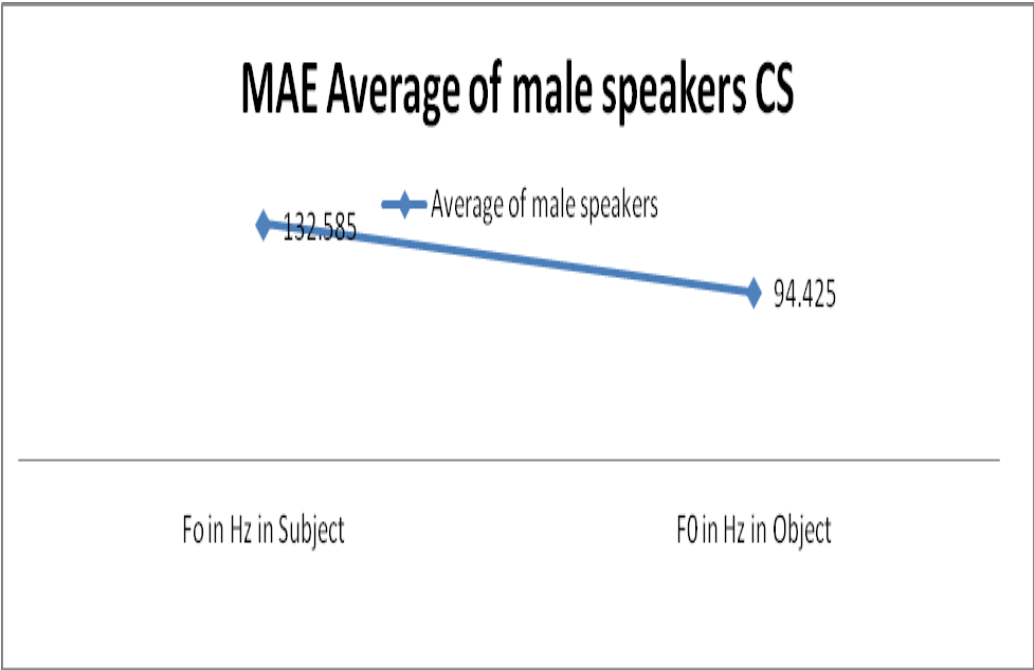


Figure 5.17: MAE average of male speakers CS

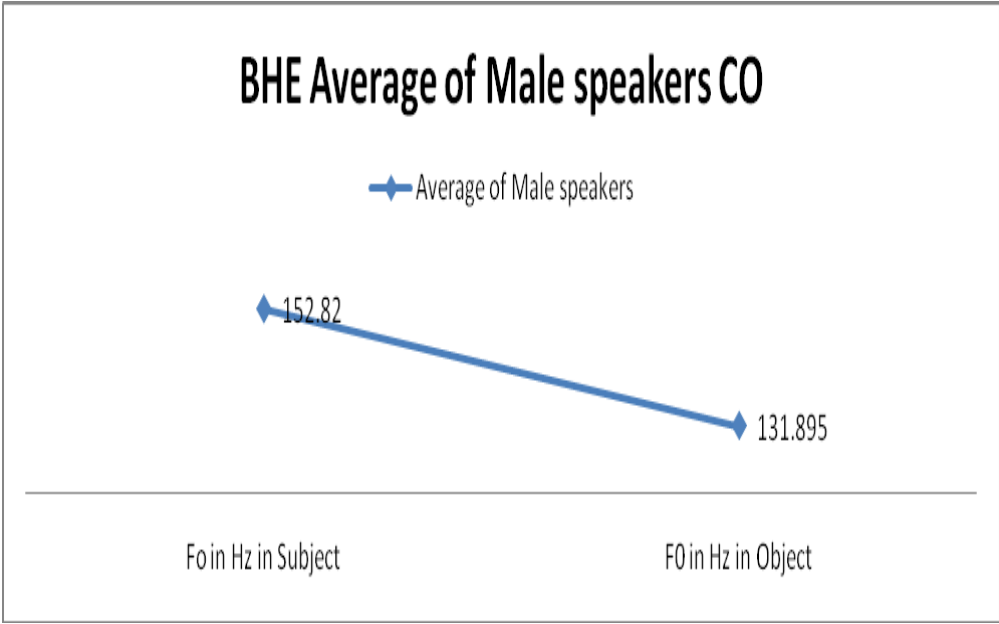


Figure 5.18: BHE Average of Male speakers CO

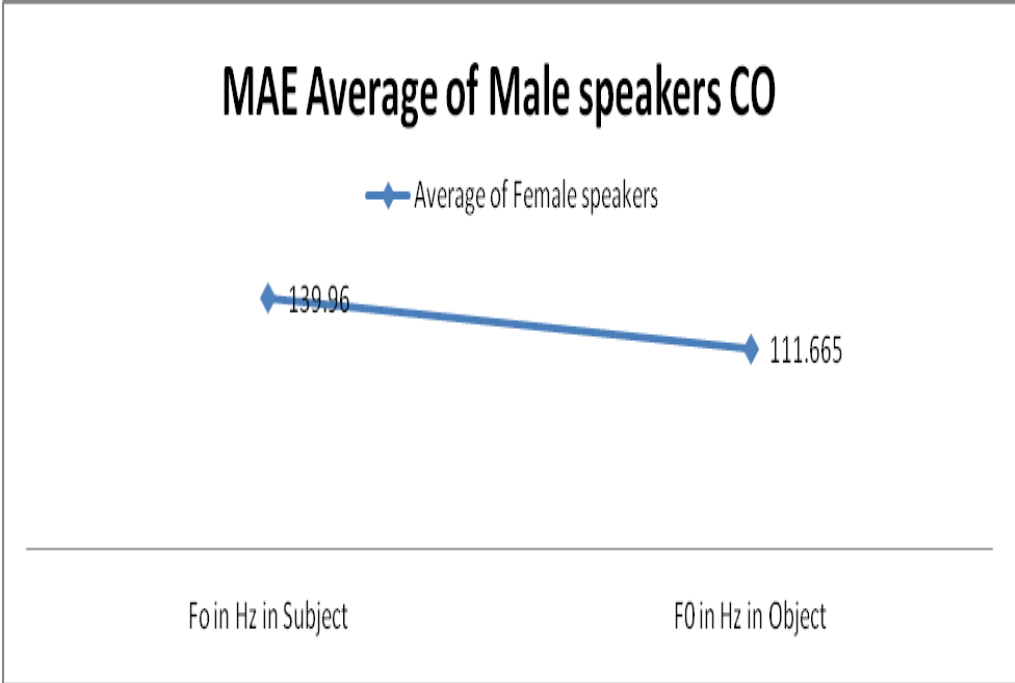


Figure 5.19: MAE average of Male speakers CO

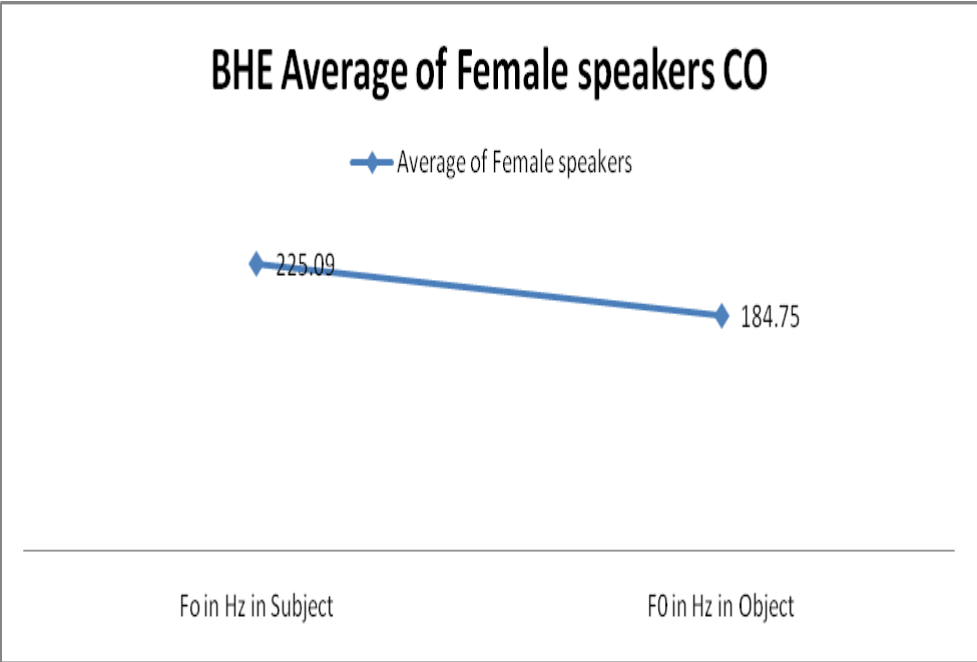


Figure 5.20: BHE Average of Female speakers CO

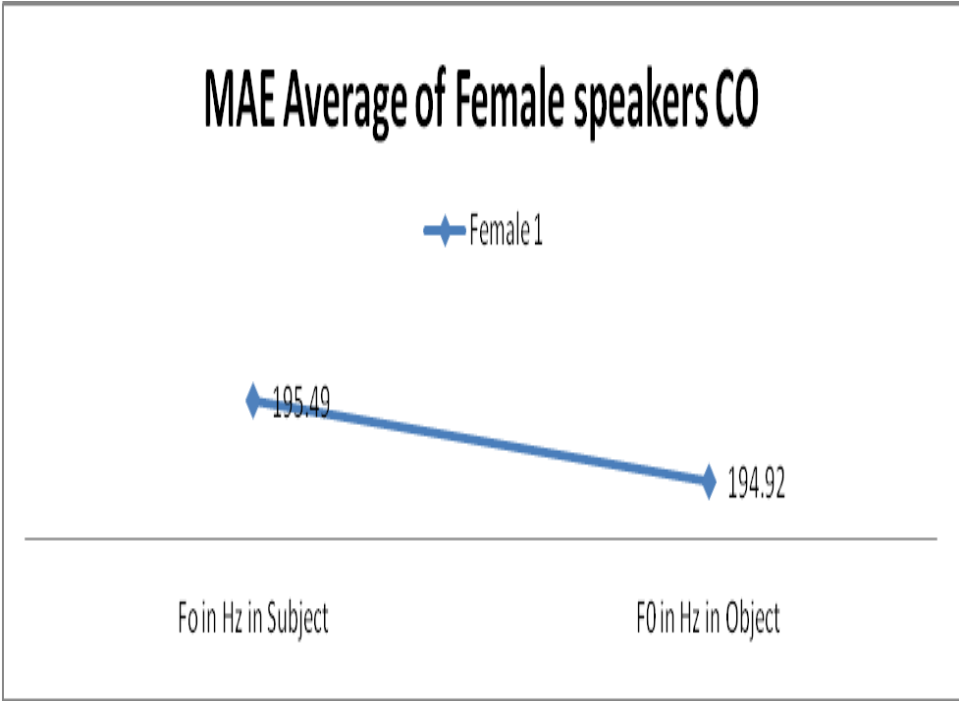


Figure 5.21: MAE average of female speakers CO

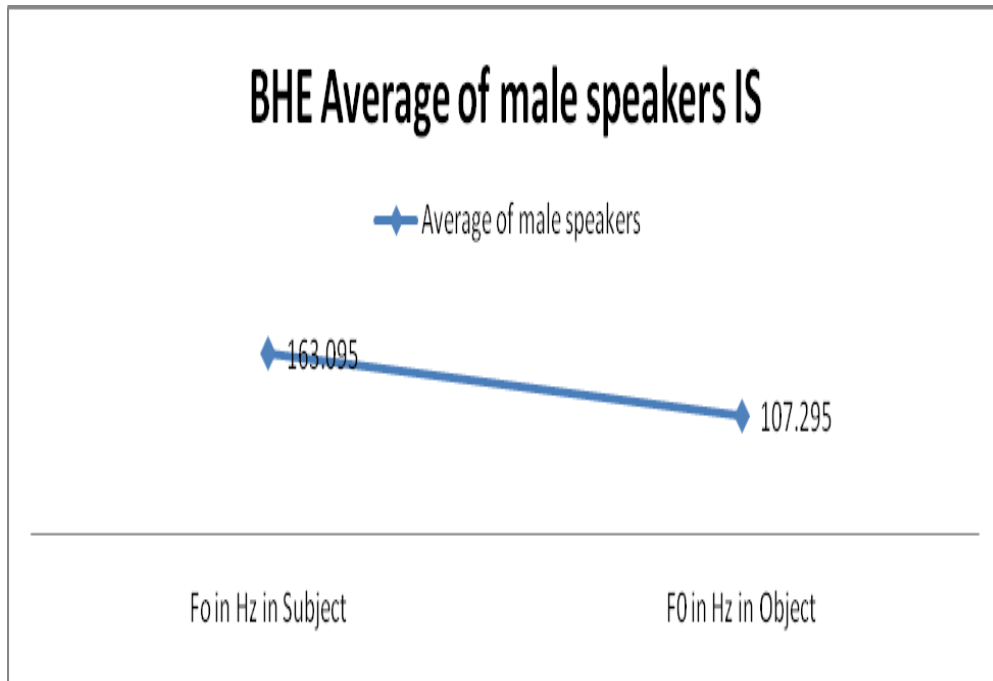


Figure 5.22: BHE Average of male speakers IS

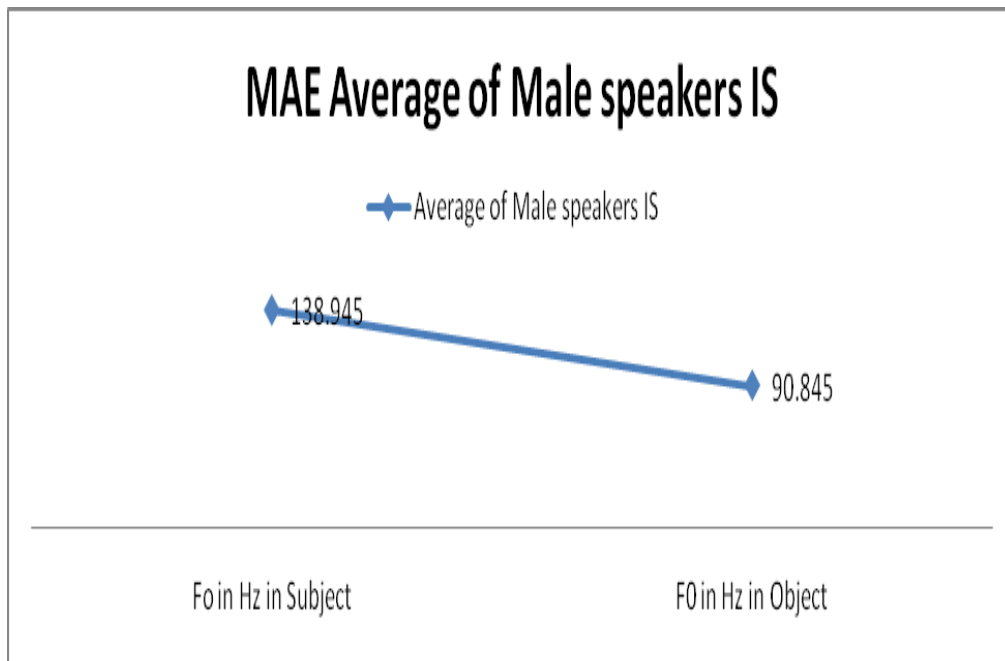


Figure 5.23: MAE Average of Male speakers IS

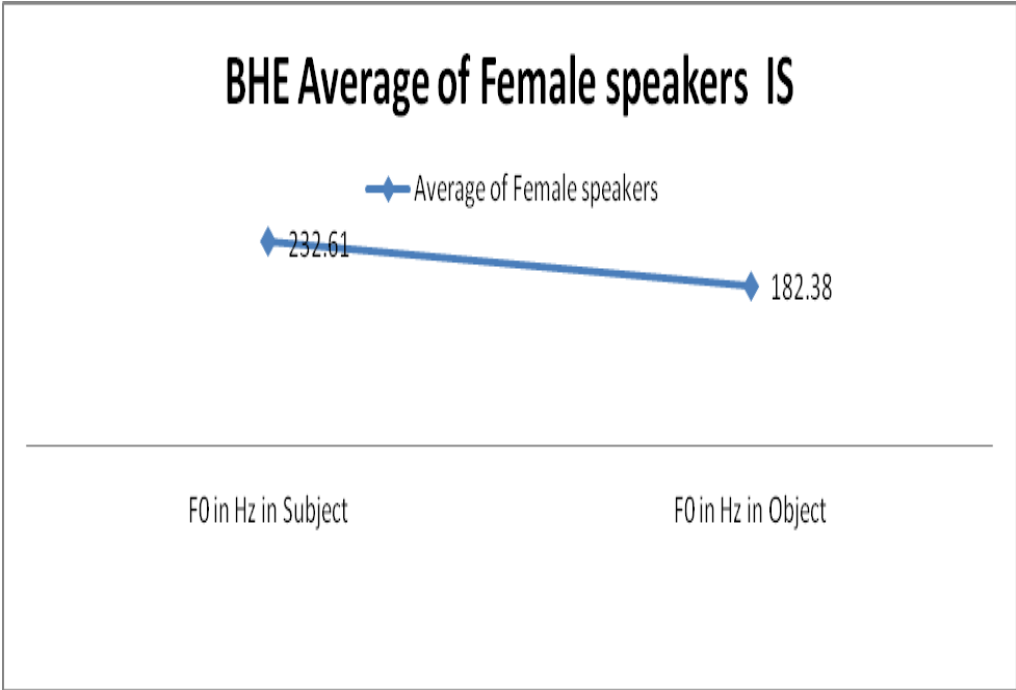


Figure 5.24: BHE Average of Female speakers IS

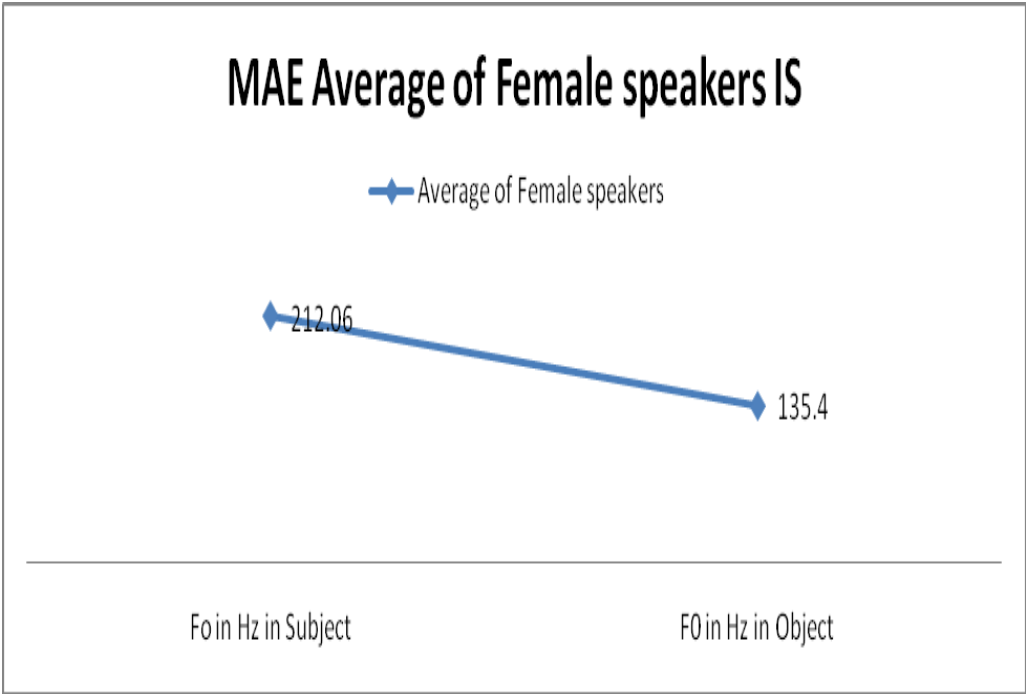


Figure 5.25: MAE average of female speakers IS

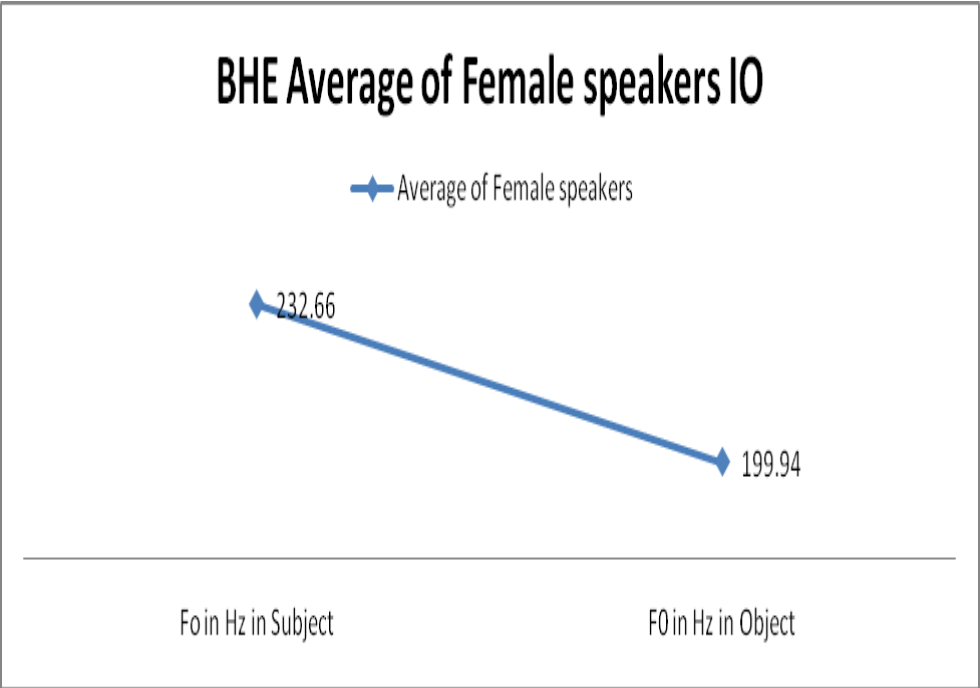


Figure 5.26: BHE Average of Female speakers IO

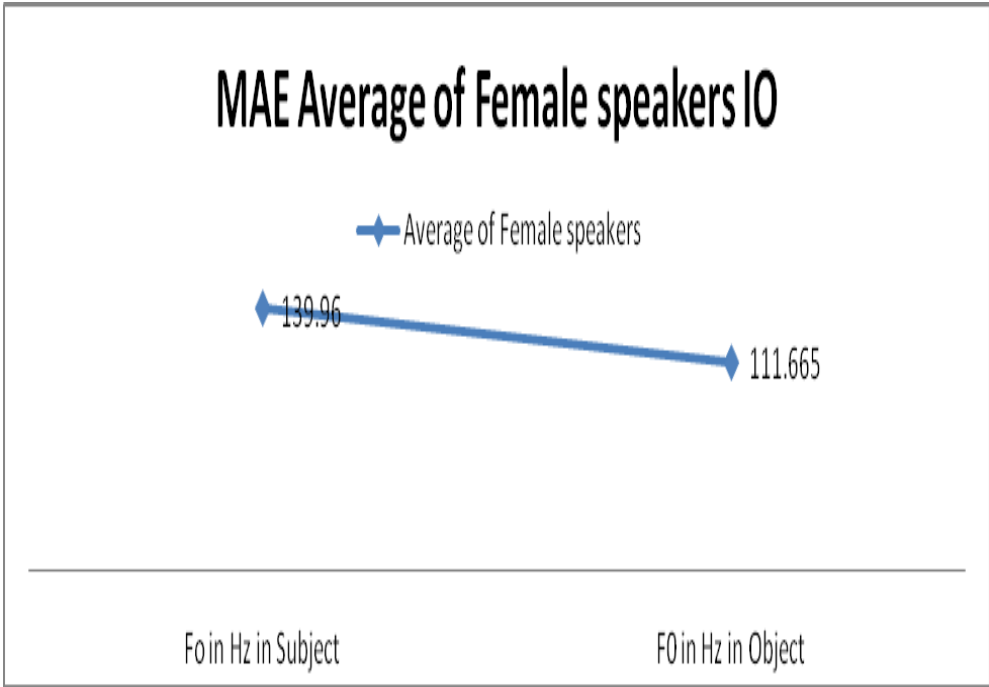


Figure 5.27: MAE average of female speakers IO

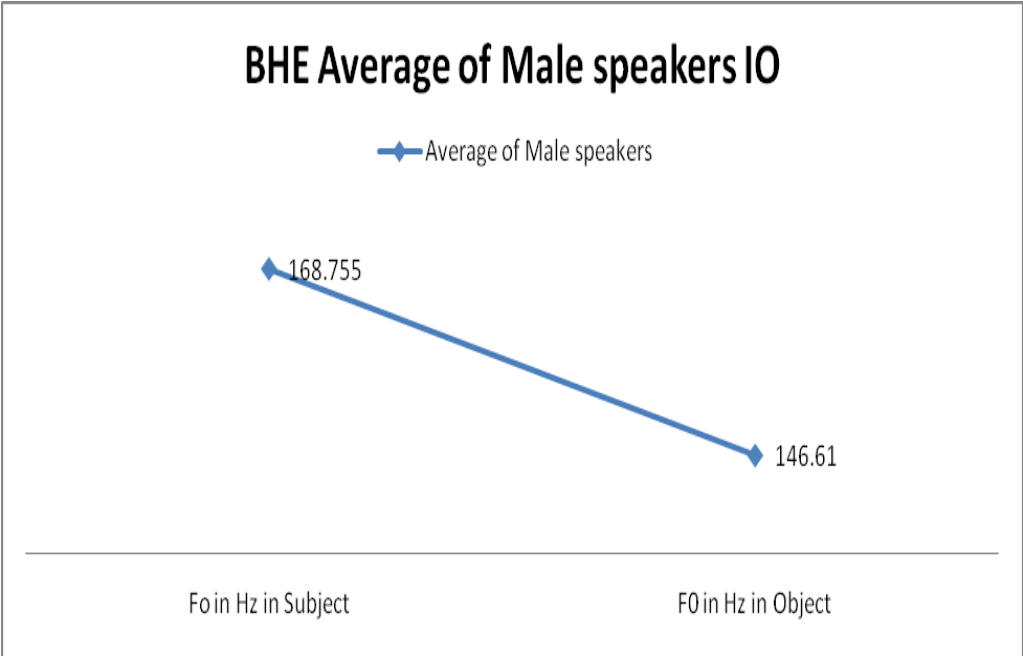


Figure 5.28: BHE Average of Male speakers IO

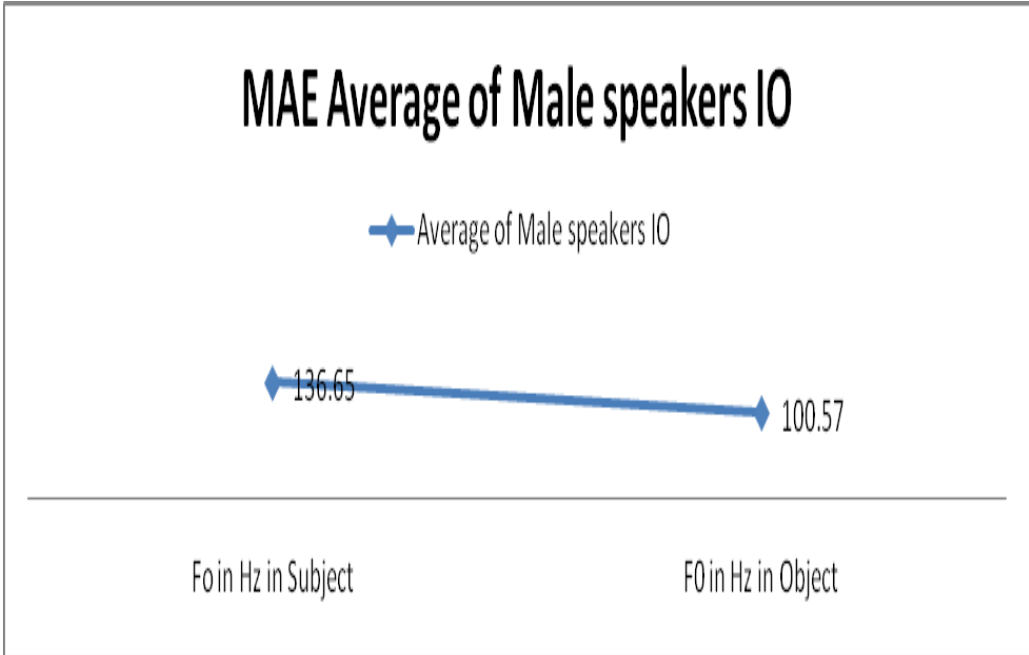


Figure 5.29: MAE average of male speakers IO

Result- Intensity

Subject is always louder

There is significant result on Intensity

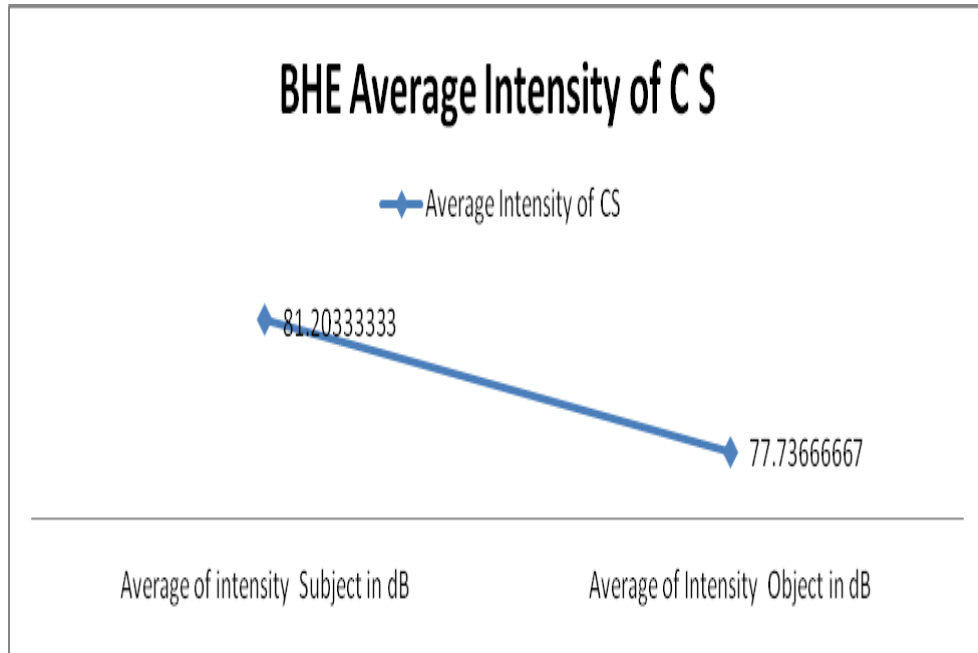


Figure 5.30: BHE Average Intensity of CS

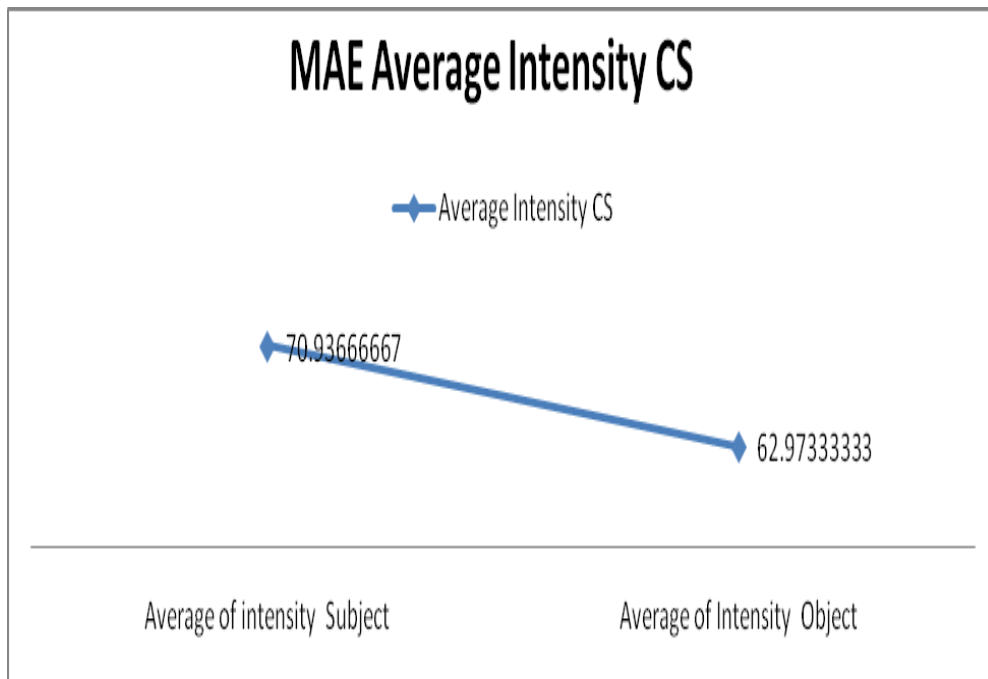


Figure 5.31: MAE average intensity CS

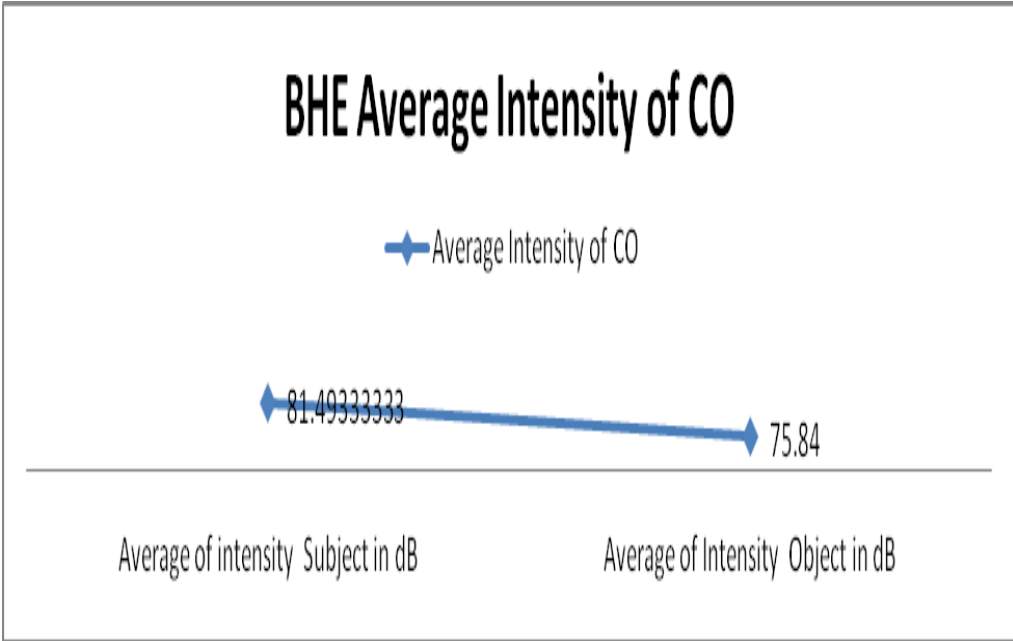


Figure 5.32: BHE Average Intensity of CO

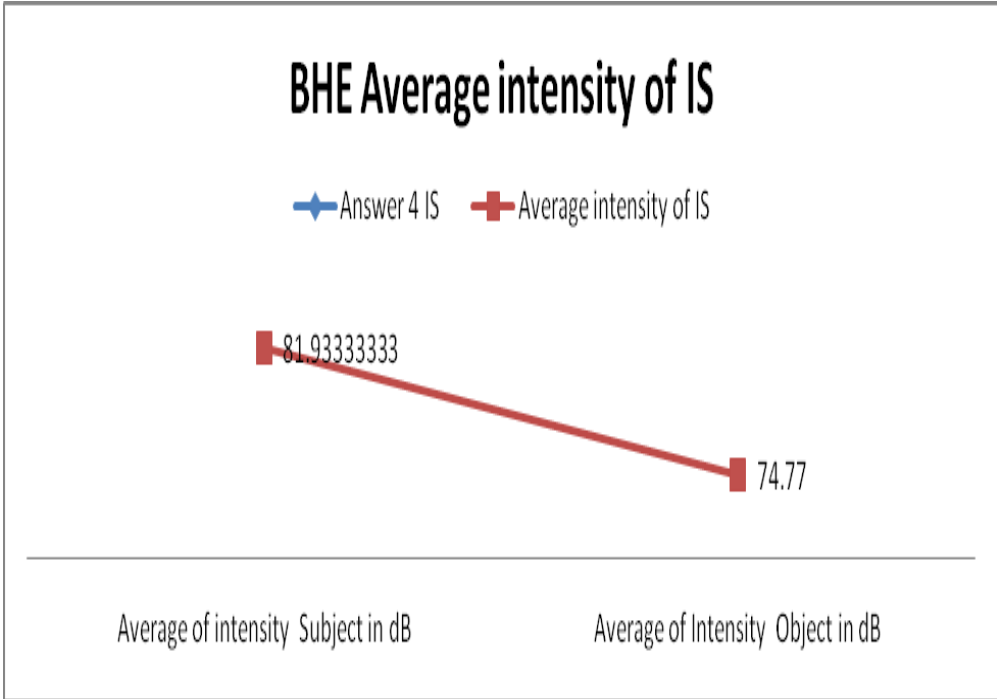


Figure 5.33: BHE Average intensity of IS

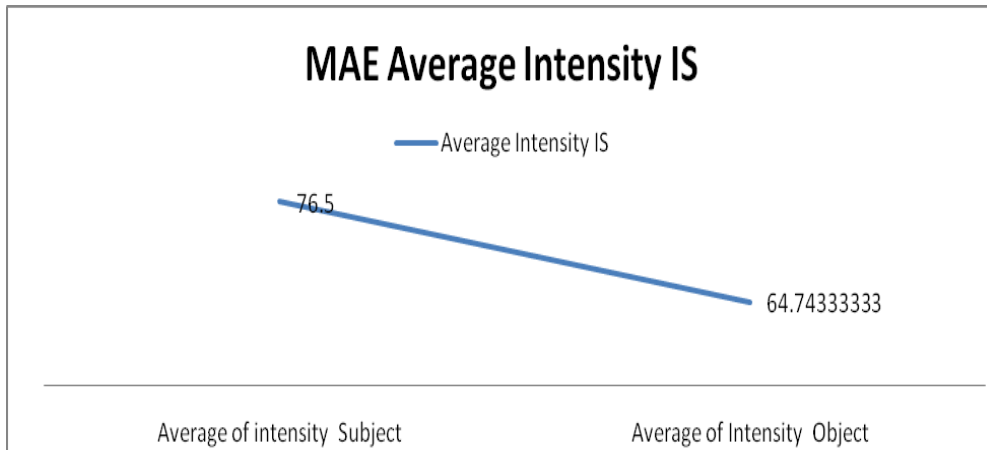


Figure 5.34: MAE average intensity IS

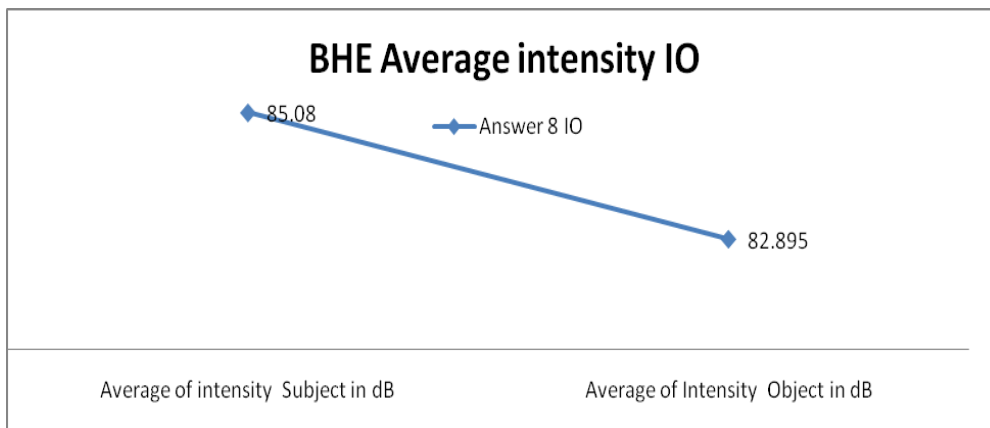


Figure 5.35: BHE average intensity IO

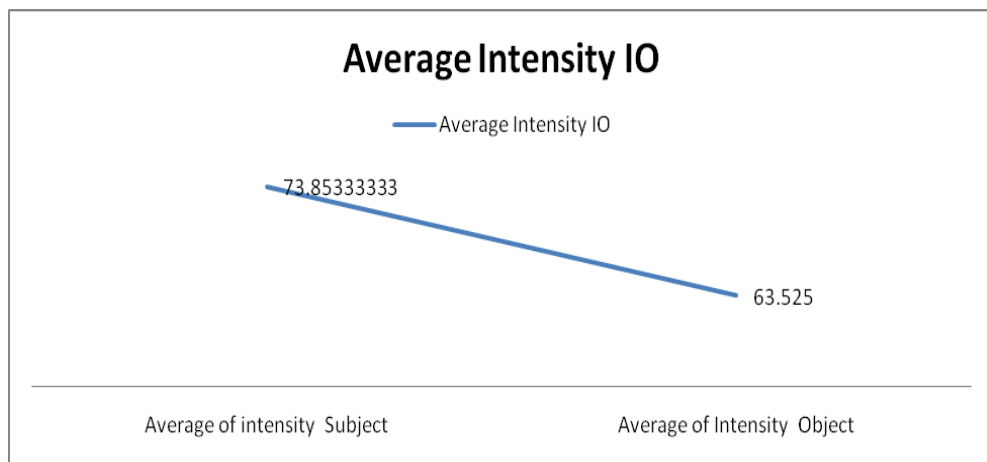


Figure 5.36: Average intensity IO

Result- Duration

Here we see that the objects is relatively longer and There is a final vowel lengthening. The subjects of some of the speakers tend to be longer when focused

In CS subject is longer (Subject is focused)

In CO, object is longer (object is focused)

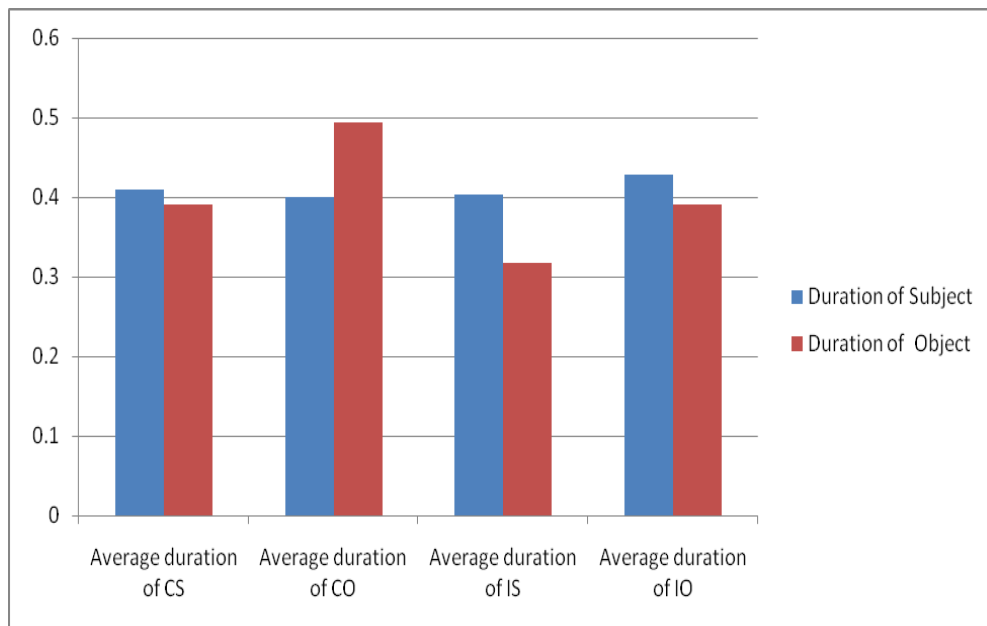


Figure 5.37: BHE: Duration

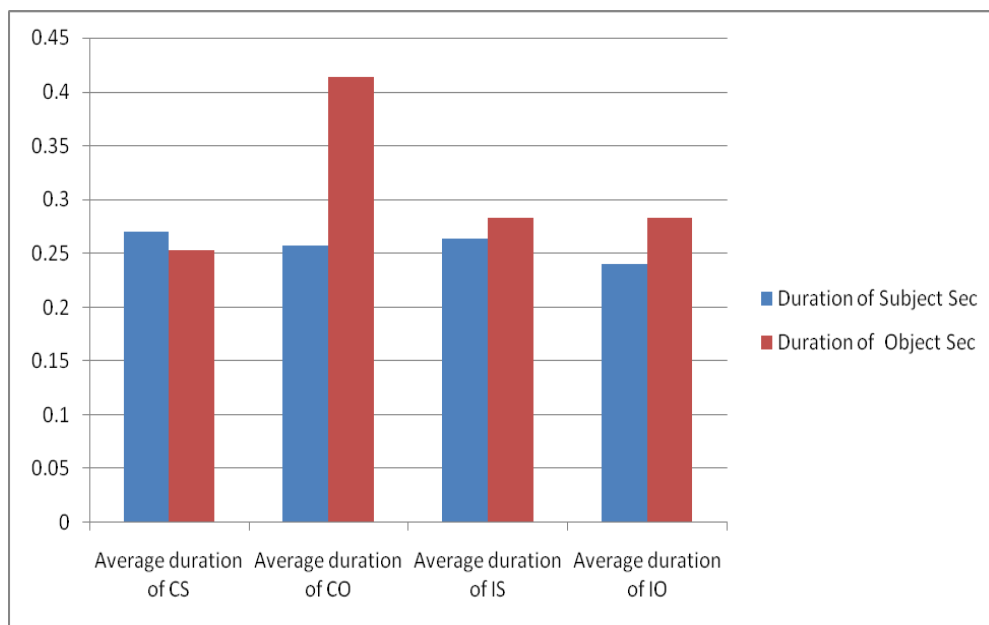


Figure 5.38: ME: Duration

5.11 Conclusion and observations

From the data and its analysis, it is evident that F0 intensity is not exhibiting any significant results. In CS, subject is longer which is focused whereas in CO object is focused and it is longer. The Eastern Variety is having a final boundary rise (H %) in most of the cases save in IS, whereas the Malayalam variety is having a low boundary tone (L %). Interestingly, both the varieties are showing gradual declination in their intonation pattern. It has been observed that the focused phrase is exhibiting break in most of the cases. Thus, we observe that Indian English differ in prosodic patterns in bilinguals speaking different languages from two distinct language families.

Chapter 6

Conclusion

“A second language is not just adding rooms to your house by building an extension at the back: it is rebuilding all the internal walls”.

- Vivian Cook (2005)

The notion of multilingual-competence became highly significant as the societal awareness of multilingualism rekindled the interest in the explanation of what it signifies to know more than one language and how-multiple languages work in the human brain. This brought a sigh of relief to those involved in language teaching and people carrying out research in the area of second language acquisition. In the beginning, explained as “knowledge of two or more languages in the same mind” (Cook 1991) and “the compound state of mind with two grammars” (Cook 1992), it now “involves the whole mind of the speaker, not simply their first language, or their second” (Cook 2016) and “the overall system of a mind or a community that uses more than one language” (Aronin, 2019).

Recent times have witnessed an emergent interest in multicompetence as there has been a trend of research in bi/multilingualism from various perspectives. The research inclination seems to have abandoned the linear and non-dynamic explanation and has embraced a holistic and dynamic approach. These changes are because of advancements in technology alternations in social set-ups, marking language as a strong indicator of social practices, interest in language use, and acquisition.

The multi-competence notion is invaluable as it sets off a nuanced study and observation of bi/multilingual and their multifarious and oscillating human identities in the mutable global context. As more and more research are taking place to examine the educational perspective of multilingualism and social context, the idea of multicompetence has bolstered research and interpretation of the burgeoning figure of the multilingual populace and communities.

The nature of bi/multilingual is fundamentally not akin to monolinguals and this is underlined and exhibited in the study of multi-competence. According to Cook (2003) states, “it assumes that someone who knows two or more languages is a different person from a monolingual, and so needs to be looked at in their own right rather than as a deficient monolingual.”

Research on bi/multilingualism is earning coins with each passing day. The study of bi/multilingualism is ever-increasing and ever more present than in any century in the past (Bhatia & Ritchie, 2004). Though not much serious research has been done on multilingualism, yet research on multilingualism can be traced back to the sixteenth century. Whitney’s examination of the grammatical makeup of bilingual speech (1881) and Cattell’s research (1887), which evaluated and contrasted word association and response times of bilinguals and monolingual individuals are a few examples.

However, bilingualism and multilingualism developed into a key center of methodical study only in the last century, especially from the 1970s.

6.1 The Transdisciplinary Future

Studies in bi/multilingualism have augmented the existing knowledge about the human brain and the faculty of language to a great extent over the years. We can understand more about the human faculty of language than the monolingual perspective could have ever offered to us. New theories and information have emerged about human language and the mind because of emerging research on bi/multilingualism. Because of the multidisciplinary nature of the research, it has attracted researchers from across the disciplines and has strengthened the overall research tradition as well. However, there is a need for all-encompassing and aggregate research in the field which could cut across the tapered ambit of disciplinary innovation and research. However, there are a few major hurdles that bi/multilingual research, today faces as it moves forward to embracing a transdisciplinary approach.

Firstly, as discussed in the introduction chapter, in a transdisciplinary approach, there is a great chance of terms being misinterpreted. Each discipline fashions its own set of technical terminologies and jargon which might not be apprehended by the researchers from other disciplines. The same term which is used in

various disciplines might infer differently from different researchers belonging to distinct disciplines. A term like ‘language’ will mean different to a psychologist and a linguist generating a line of misinterpretation and ambiguity. In the same fashion, the notion of a “bilingual” will be reflected and received differently by different researchers. Some might highlight “no monolingual experience”; others could include adult second language learners and a few others could arbitrate for proficiency in the language as the decisive factor.

The second challenge is the adoption of research methodology. Each discipline forges its own set of methods to carry out any research. This could create misconstruction and challenges to the findings in transdisciplinary research. Research methods are formulated as per the objectives of the research and have to be suitable for the research inquiries. Nevertheless, research inquiries are not devoid of disciplinary prejudices and ideological inclinations. Particularly framed research questions complement certain methods in research.

Burgeoning research and studies have displayed and demonstrated that the effect of multilingualism pervades and permeates various aspects of human life. The benefits of multilingual have been shown to have a bearing upon one’s creativity and divergent thinking (Kharkurin 2012).

Pattanayak (1991) has rightly summed up underscoring the significance of linguistic diversity and the western preoccupation with embracing uniformity as a norm:

“While Weinstein, an eminent political scientist looking at the American structure asks: how much diversity can this structure tolerate?, a person in a Third World country must ask, how much uniformity can that structure tolerate?... The Western view is linear and binary, whereas the Eastern is cyclical and spiral. However, the westernized eastern elites, who are in charge of planning, follow essentially the Western worldview”.

The phenomenon of knowing more than one language is intricate, dynamic, vivid and ever-absorbing. As such, multilingualism is broadly portrayed as “a natural state of humankind” (Flynn, 2016).

6.2 Further Research questions

6.2.1 Phonological features

6.2.1.1 Transfer and Persistence of Feature

A question that is of interest in relation to the present problem is how a commonly shared phoneme in different codes is realized in them, for example, /b^h/ in Gujarati and in Hindi, or /r/ in Assamese and in Hindi. It will be interesting to look into the fact where in the speech of a speaker's production of language 'x' the feature of language 'y' is used by the speaker in spite of the speaker being competent in language 'x'. Recent advances in speech science and their technological simulations allow increasingly sophisticated progress in the study of language interaction in multilingual set-up. The studies, particularly those at the level of pronunciation, show that interaction among languages is robust and socially embedded in interesting ways (Preston, Dennis, Niedzielski, Nancy, 2010). In this context, it will be significant to look into the sociophonetic data for the nature and types of regularity that can be found. The objective here would be to go into the sociophonetics of multilingualism.

6.2.2 Emergence

The emergence of new phonological features or sounds is another significant topic in the study of multilingual competence. For example, in a multilingual setting with Hindi, Indian English and Bangla languages, it has been observed that when a Bangla native speaker uses a word from Hindi he replaces the [ə] sound with rounded [o]. But in a borrowed word, [ə] is substituted by a low-mid central vowel [ɐ]. As for example, but [bət] is pronounced as [bət], paper [pe:pər] as [pepər]. Here the a-ness remains the same. It will be interesting to see the systematic pattern that emerges in such situations.

The study of the transfer of phonological features from one code to the other and vice versa has not been explored. The study of this phenomenon constitutes one of the major topics of my research. It can facilitate in going into the sociophonetics of multilingualism. For the research questions that I am going to deal with, Chomsky's notion of I-Language is significant. The object of my study here is the I-language of a multilingual speaker.

6.3 Discourse features

Study of discourse features constitute one the most interesting research areas in multilingual set up.

6.4 Ellipsis and Focus

Ellipsis which is part of communication structure is very common in a multi-code situation. Briefly, ellipsis refers to the omission from a clause of one or more constituents (Johnson, 2008). Ellipsis as a linguistic phenomenon has been exhaustively studied from a monolingual perspective so far. It would be interesting to investigate the relation between underlying representation and output forms when the elided sentence is not of the same code as the input.

Following are few examples of ellipsis in a monolingual set-up:

- (a) “John can play the guitar; Mary can, too” (VP-ellipsis)
- (b) “John can play five instruments, and Mary can play six.” (NP-ellipsis)

With the study of elided sentences of one code in relation to another in a multilingual setting we can explore how certain operations like ellipsis /dropping take place on the surface with the underlying sentence input coming from another code. It could be interesting to see how two or more codes interact when ellipsis takes place. Samples of ellipsis involving Hindi and (Indian) English are as follows:

(a) Speaker 1 : मॆ तुमहॆ is मॆgzin ke front page पॆr dek^hna चाहॆtj hॆ.

I you this magazine of front page on see want am

I want to see you on the front page of this magazine.

Speaker 2: I want to, yar.

(b) Speaker 1 : तुम ग^hॆr cॆloge kya?

You home go what

Will you come home?

Speaker 2 : No, I won't.

(c) Speaker 1: Sharmaji is out of Delhi.

Speaker 2 : ॆcha! kॆb se?

Ok! When from?

Here in the examples (a) and (b) the input given by Speaker 1 for Speaker 2 is in Hindi but the output code is in English elided sentences. In (c) the input given by Speaker 1 is in English but the output by Speaker 2 is in Hindi in an elided sentence. These examples are relevant to the investigation of communication structure in a multi-code setting. In example (a), the given information (topic) is in Hindi and the output of the second speaker is in English, with the focus placed on the verb want. Here the information is new. I propose to look into the role of linguistic factors in Ellipsis and focus.

This can be presented with the following diagram:

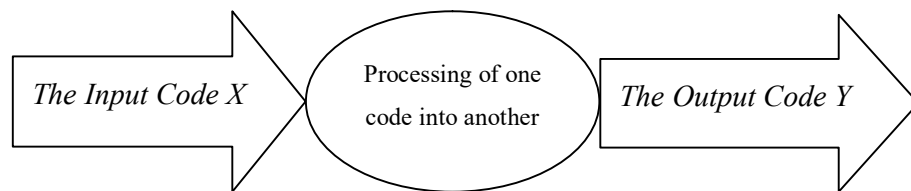


Figure 6.1: Elision from one code to another

6.5 An overview

Presence of multiple languages is a reality in most of the sections of the world (Cenoz, 2013). Various research with different perspectives have explored multilingualism. There is a need to make the research boundaries porous so that researchers from social psychology and applied linguistics can collaborate. This will augment the exiting knowledge and understanding about various aspects of multilingualism and its intersecting areas. Both social psychologists and applied linguists might undertake research in multilingualism with varied epistemological standpoints. In addition to this, various methodological perspectives will strengthen the proper cross-pollination of methodologies and interdisciplinarity as well. To precipitate research, triangulation of the methodologies used and utilizing the established methods from both these areas will be of great help.

The notion of multicompetence has earned coins with research coming out from various perspectives and disciple over the years. In recent times, we can observe that there has been a cross-pollination of methodologies, integration of perspectives which have made the research in multilingualism more holistic, less linear and relatively more dynamic. These changes are not all of a sudden. To a great extent, it

exhibits the significant adaptation which has taken place with technological interventions, changes in ideologies, narratives about language endangerment and policies buttressing and creating scaffolding for MTB-MLE in a swiftly changing and evolving globe.

It is apparent that most of the population of the world possesses two or more languages. Multi-competent language users (Cook, 1995) are different from monolinguals. The theory of multi competence concerns itself with the “presence of two or more languages in the single mind”. The basic assumptions, as proposed by Cook (1995, 1999) are as follows:

A learner's second language knowledge does not mirror the knowledge of the native speaker of the same language. In another words, when a language is learnt as l2 or a foreign language, it does not exhibit the similarity in toto when compared with the native language user of the same language. Secondly, compared to the monolinguals L2 learners have different use of the language. They have may have more comprehensive more function broader mains of language use than the monolinguals. Moreover, the L2 learners’ language use is influenced by the languages that are part of their verbal repertoire. The augmentation of the linguistic repertoire has an effect on all language domains as the knowledge of L2 learner about their 1st language is not similar to that of the knowledge of the same language like that of a monolingual.

Knowledge of more languages induces more language awareness and cognitive flexibility. Bialystock (2001) states that a child who knows a 2nd language possesses a relatively more honed view of first language and is well equipped with unscrambling meaning from the form.

To recapitulate, Cook (1995) explains that, second language learners cannot be regarded like unsuccessful native speakers; rather they must be understood and viewed as a different kind of leaner in their own right. Accordingly, Cook (1995) suggests terms like “second language user” rather than “second language learner” for those who are in the pursuit of achieving a target-like competence in the language.

Traditionally, multilingualism and multilinguals have been overlooked in the overall pedagogic contexts as it is the monoglossic parameter and model which have dominated educational milieu (García and Torres-Guevara 2010). Earlier studies in

bilingualism or multilingualism used to view each language separately and used to measure and compare them differently as well (Hamers and Blanc 2000). An evaluation of multicompetence dominated by the monolingual standpoint “try to account for ultimate native-like proficiency in all the languages” and “assume that the multilingual is the sum of the native-like monolingual competence in each language” (Stavans and Hoffmann 2015). Herdina and Jessner (2002) demonstrate the following “as long as bilinguals are measured according to monolingual criteria, they appear to be greatly disadvantaged both in linguistic and cognitive terms”.

Whilst methodologies formed for monolinguals are utilized to evaluate multilingual competence, it is bound to trigger feedback in the target language ignoring other language from the repertoire. Grosjean (1985) states that, “The measures used to assess bilinguals are usually the same used to assess monolinguals.” It is thus evident that if assessment is done using monolingual methods, it will sideline the various requirements needed for two languages. It will completely ignore the fact that multilinguals might use different languages to meet different purposes, with a different group of persons and of course, in a different context as well (Grosjean 1989).

Research in multilingual competence is expected to help in forging and evolving pedagogic practices which would accommodate and be sensitive to the linguistic realities and the rich linguistic diversity of the country. Consequently, there will be a push toward the need for teachers’ training programmes which will embolden the need for training and sensitization towards the existence of multiple tongues as a reality and beautify of Indian classrooms. From the studies and research into multilingual competence hitherto, it is evident that multilingual competence is an integral part of linguistic competence. Research and studies in multilingual competence will further new and integrative research vistas and subsequently, a more advanced understanding of linguistic levels, structures, language labels, contexts, and pedagogy will be generated.

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