BILINGUAL LANGUAGE ACQUISITION: A REVIEW

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DEDICATED TO

ALMIGHTY GOD

&

MY DEAR PARENTS

CERTIFICATE

This is to certify that this independent project entitled ***"Bilingual language acquisition: A Review"*** is the bonafide work submitted in part fulfillment for the Post Graduate Diploma in Clinical Linguistics – SLP of the student (Registration No. 13DCL003). This has been carried out under the guidance of a faculty of this institute and has not been submitted earlier to any other University for the award of any other Diploma or Degree.

Mysore
May, 2014

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CERTIFICATE

This is to certify that this independent project entitled "Bilingual language acquisition: A Review" has been prepared under my supervision and guidance. It is also certified that this has not been submitted earlier in any other University for award of any Diploma or Degree.

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May, 2014

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DECLARATION

This is to certify that this Independent Project entitled ***"Bilingual Language Acquisition: A Review"*** is the result of my own study under the guidance of Dr. K.C. Shyamala, Professor, Department of Speech-Language Pathology, All India Institute of Speech and Hearing, Mysore, and has not been submitted earlier in any other University for the award of any Diploma or Degree.

Mysore, **Register No. 13DCL003**

May, 2014

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"Trust in the Lord with all your heart and lean not on your own understanding; in all your ways acknowledge Him, and He will make your paths straight".

Proverbs: 3: 5, 6

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CHAPTER I

INTRODUCTION

Bilingualism

The term Bilingualism is the alternate use of two or more languages by the same individual. However 'use' is not a single dimension but the expression of one or more dimensions of bilingualism. The notion of 'use' means that the bilingual individual has the capacity to call on either languages, and this implies that he must have a minimal competence in both languages (Weinreich, 1953; Mackey, 1962).

As is often believed, bilinguals could be defined as individuals who have "native-like control of two languages" (Bloomfield, 1933, p. 56). However, this strict view of bilingualism limits the number of individuals and groups that could be classified as bilingual, not to mention the fact that such a definition makes it difficult to operationalize "native-like fluencies".

On the other hand, Haugen (1953) defined bilinguals as individuals who are fluent in one language but who "can produce complete meaningful utterances in the other language".

According to Mohanty and Perregaux (1997), bilingualism can be defined as psychological and social states of individuals or groups of people that result from interactions via language in which two or more linguistic codes (including dialects) are used for communication.

Bilingual Language Acquisition

Language acquisition is the process of acquiring a first or second language. Some linguists distinguish between language acquisition and "language learning" of a second language, using the former to describe the informal development of a person's second language, and the latter to describe the process of formal study of a second

language. Other linguists maintain that no clear distinction can be made between informal acquisition and formal learning.

Bilingual acquisition is defined as the acquisition of two languages during the period of primary language development, extending from birth onward. Bilingual acquisition can entail the acquisition of more than two languages (see Cenoz and Jessner, 2000) as well as the acquisition of a spoken and signed language (e.g., Richmond-Welty and Siple, 1999) or of two spoken languages; only studies of the simultaneous acquisition of two spoken languages are reported. An ideal definition of bilingual acquisition would include not only reference to the age of first exposure to two languages, but also reference to the regularity and extent of exposure to each language.

In 1913, Ronjat published a detailed report of his son Louis' simultaneous acquisition of French and German. Louis showed remarkable progress in both his languages and little sign of confusion. Ronjat attributed Louis's lack of confusion to both parents' use of only one language with him.

This assumption was brought into doubt in 1949 when Leopold published the last volume of a detailed diary of his daughter's (Hildegard) simultaneous acquisition of English and German. Leopold claimed that the parents were insistent on a one parent-one language rule. Yet Hildegard passed through a stage when she used words from both languages, a fact that Leopold interpreted as a sign that she had confused her two languages and was functioning as a monolingual. These diarists set the tone for the study of bilingual first language acquisition (BFLA) to present day.

That Bilingual first language acquisition learners might go through an initial monolingual stage, as initially proposed by Leopold, is but one instance of the more general concern that BFLA strains the child's language learning capacity, leading to delayed and even impaired forms of language development (Smith, 1935,). This concern has been expressed in a number of ways: BFLA strength result in impaired cognitive, as well as linguistic, development (Bialystok, 2001); bilingual education puts children at

risk for academic failure or delay (e.g., Macnamara, 1966); or BFL learners will be socio-cultural misfits, identifying strongly with neither language group (Diebold, 1968).

McLaughlin (1978), in an early review of bilingual acquisition research, proposed that the much more lenient cut-off of exposure to two languages before 3 years of age. Whether acquisition of an additional language within one, two, or three years of birth entails different processes and outcomes is an empirical question with important theoretical implications. We limit our discussion to simultaneous acquisition from birth to about four years of age. Even with these limits, there is considerable heterogeneity among bilingual first learner (BFL) learners because bilingual first language acquisition (BFLA) is impacted by all those factors that can affect monolingual acquisition as well as bilingual-specific factors, such as different language combinations and differences in the amount, consistency, and contexts of language exposure.

The language skills of bilingual children are similar, but different to the ones of monolingual children. These language skills are not equally distributed across both languages. Bilingual children may show certain skills in one language but not in the other. Therefore, comprehensive assessment of bilingual children has to be performed in both languages. A bilingual child is not two monolinguals in one. The rate of acquisition of language milestones is similar to monolingual children provided that both languages are taken into account. The rate of acquisition of the L1 and L2 varies among different learners. Some considerations to take into account are: length of exposure to each language, time of exposure to L2, reasons for learning the L2, academic experience with L1 and L2, ability to use each language, linguistic structure of the two languages, and individual variation. No two children are equal. Any bilingual child might have relatively equal facility with both languages and the language skills in one language might be superior to in the monolinguals.

NEED FOR THE STUDY

There is a dearth of studies in Indian context in terms of the bilingual language acquisition in children. There has been evidence to say that the language acquisition differs in case of bilinguals and monolinguals children. India being a multilingual country it is important to explore a multilingual advantage over a bilingual one. Studies have considered different ways to distinguish the language acquisition process in bilinguals. However, there is a dearth of investigations that have considered the entire gamut of bilingual and multilingual language acquisition. The present study offers the scope for the same. Meta analytic studies that show bilingual language acquisition, and issues related to them besides those related to monolingual vs. Bilinguals are scarce, hence the present study is planned.

AIM OF THE STUDY

The present Meta analytic study aims to investigate bilingual language acquisition by studying in detail and then highlighting issues related to monolingual vs. bilingual speaking typically developing children (TDC) of typical age range.

OBJECTIVES OF THE STUDY

The review is planned to survey studies in literature for various purposes:

1. To investigate how the language acquisition takes place in bilinguals.

2. To examine the developmental milestones and stages of language acquisition that happens in children.

3. To analyse models involved in language acquisition of bilinguals.

4. It's a Meta analytic study of a large collection of individual studies for the purpose of integrating findings and obtaining a thorough summary of several studies that have been done on the topic, and to provide the reader with single source of extensive information on bilingual language acquisition.

CHAPTER II

METHOD

The aim of this independent project in clinical linguistics is to provide Meta analytic and a single source of reference for bilingual language acquisition.

A literature search was carried out using the electronic data bases Google scholar, PubMed and Embase. All relevant inclusion dated up to last ten years were used. It was decided upon to take two fifty articles initially which were identified through internet searching and forty additional articles identified through other sources in the library. The search was refined by removing the duplicates and similar articles. So, total number of articles for study retained for review and analysis was hundred. Since majority of bilingual studies are in English, the search focused on this language. Relevant studies in Spanish, French, and Dutch were also included. Electronic database were searched from Google scholar , PubMed and Embase the Mesh term development, stages, theories, models were combined with language acquisition in bilinguals. In all the searches, the Mesh terms language acquisition in monolingual vs. bilingual was included. Only articles on language acquisition in normally developing bilinguals were included. Studies which focused on language development in children with communication disorders and adults were excluded from the review.

The reviewed information thus obtained was complied and categorized under the following categories as:

1. Studies related to theories of language development in bilingual children.
2. Studies related to milestones of language development in bilingual children.
3. Studies related to stages of language development in bilingual children.
4. Studies related to models of language development in bilingual children.

CHAPTER III

Review of Literature

Starting with the definition of the term-bilingualism, there is a quotation presenting that bilingualism is not a rare phenomenon as over half the world's population speak two languages. There is a big difference between the past and present. In the past people used to speak one language only in one country (Harding, Riley 1999: 27). Now a day, the situation has changed as a result of world's globalization and mobility of people.

Bilingualism is quite a difficult term to explain. Certain authors of books or articles consider a person to be bilingual if he knows only a few words of a second language, whilst others only use the term for those who speak two languages at a native speaker's competence. However, this raises the problem of what is meant by the competence of the native speaker, as there are various stages of competence among the native speakers. (Baker, Jones 1998: 2)

There are many cases when a native speaker cannot speak his language perfectly and a bilingual speaker can speak it much better than him. Who can solve this? Who can recognise the borderline in the use of a language? Generally, it is said that a person is considered to be bilingual if he has the ability to use the languages. (Teaschner 1983: 3-4; Grosjean 1982: 2-3)

Certain authors define a person to be bilingual if he possesses a minor degree of one of the skills such as speaking, writing, listening and reading. Most opinions of the authors mentioned is somewhere between these two definitions – it means they "locate" a bilingual child with a good competence the other language – not just several words nor speaking like a native speaker. (Grosjean 1982: 170)

As there is more than one definition of bilingualism, it is very difficult to find out who is bilingual and in what extent. A person speaking two languages has a right to decide whether he or she is bilingual according to his or her abilities and language skills.

Bilingualism and multilingualism, in recent times, has largely become the rule and not the exception due to the global expansion .In India however this has always been the cases due to the vast history and cultural differences. Census India (2001) reports that 19.44 percent are bilinguals and 7.22 percent are trilingual.

There are basically two approaches to the term "bilingualism" I would like to mention. The first, maxima list one, by Bloomfield (1933: 55) describes bilingualism as "the native-like control of two or more languages." On one hand, the definition is ambiguous in terms of what exactly is meant by "control" and who forms the "native" reference group. On the other hand, the approach describes an ideal, balanced bilingual, the requirements on who in terms of language proficiency are unrealistic. "If we examine the experience of bilinguals around us, we quickly realize that bilinguals do not, and cannot, function like two monolinguals" (Chin, Wigglesworth 2007: 5).

Several other researchers support the other, minimalist, approach. Among them Diebold (1964) with his concept of *incipient bilingualism*. This term include people with minimal competence in a second language into the group of bilinguals, e.g. Tourists with a few phrases. Similarly, Mackey (1962: 52) defined bilingualism as "the ability to use more than one language" and Weinrich (1968) as "the practice of alternately using two languages."

"As is evident, each definition represents a position at different ends of the proficiency continuum even though, in reality, most bilinguals probably fall somewhere in the middle of this continuum" (Chin, Wigglesworth 2007: 3). As they use their two languages for different purposes and in different contexts, their degree of competence in both languages differs greatly from individual to individual (Baker, García 1993; Chin, Wigglesworth 2007: 5).

Furthermore, McNamara (1969) emphasized the need to discuss the degree of bilingualism as a degree of competence in sub-components (macro skills): speaking, writing, reading and listening. Here, "the competence in bilingualism is seen as a continuum with individuals showing varying degrees of competence in each of the macro skills" (Chin, Wigglesworth 2007: 6).

Types of Bilingualism

There are two main types of bilingualism, simultaneous and consecutive. (McLaughlin 1978) Bilingualism is called simultaneous when children have acquired the second language after having knowledge of the first, whilst the other type, consecutive, means that children come into contact with the other language when they went on holiday abroad. Another definition is offered by McLaughlin who uses the term "simultaneous" for all bilingual subjects who have begun having steady contact with two languages before the age of three and the term "consecutive" is refers to all those who have their first contact with a second language after that age. (Taeschner 1983: 3)

A receptive bilingualism is also one of its variants. It is the case when the speaker understands the language, but cannot speak it. One of the main causes of receptive bilingualism is language shift (this happens where a group is changing from using one language to using another). For example, parents of a family speaking English have friends in Norway. They are able to understand and read the language after a longer time but they cannot use the language for speaking. (Grosjean 1982: 179-180) However, this case is very individual as it depends on people as well as on their abilities.

Division according to the use of a language

There are also some other divisions depending on the use of a language. For example, a person can speak two languages but he uses just one in practice. Or, a person "speaks" two languages but has a halting fluency in one language. Another distinction in proficiency in a language may be various across the four skills – speaking, listening,

reading and writing. That is, a person can understand the spoken language but is not able to write. One of the last cases is a person is able to speak both languages. One is stronger and better developed than the other. (Baker, Jones 1998: 30)

Weinrich (1968) categorises bilingualism in terms of the way in which the concepts of language thought to be encoded in the individual's brain. He believed that these differences resulted from the way in which the languages had been learned. Here are the categories, as Romaine (1995: 78–79) describes them:

1. Coordinate bilingualism - two sets of meanings, two linguistic systems
(E.g. A person with L1 English and L2 French learned later at school)
The person learns the languages in separate environments. The words of the two languages are kept separate with each word having its own specific meaning, which should lead to development and maintenance of two independent languages.

2. Sub-coordinate bilingualism - primary set of meanings and another linguistic system attached to them. In this sub-type of coordinate bilingualism bilinguals interpret words of their weaker language through the words of the stronger language.

3. Compound bilingualism - one set of meanings and two linguistic systems attached to them. The person learns the two languages in the same context simultaneously, so that a single concept would have two different verbal labels attached to it. In this case the languages are interdependent.

Harding and Riley (2003: 42–45) mention another kind of classification, according to the age of acquisition:

1. Infant bilingualism is a simultaneous acquisition of two languages, when the child proceeds from not speaking at all to speaking two languages.

2. Child bilingualism is a successive acquisition of two or more languages. (First one Language, then another)

3. Later bilingualism, often associated with non-native accent, is present in adolescents after puberty or adults not in their teens anymore.

Harding and Riley (2003), Lightbown and Spada (2006) refer to children who learn more than one language from earliest childhood as "simultaneous bilinguals," whereas those who learn another language later may be called "sequential bilinguals." In addition, to the acquisition of two (or more) languages simultaneously from early on – before 3 years of age – the term "bilingual first language acquisition" is restricted (McLaughlin 1984: 73). Most of the children I use as examples in my thesis belong to this category.

Acquiring a Language

There are certain points that shows learning a language are a difficult process taking many steps. For example, learning a language is not simply a matter of repetition. As far as correcting and being corrected are concerned, they do not have any great influence on the language learning process. Usually, learning is not a neat, linear process. (Nunan 1999: 39-41)

On the other hand, there are certain points that show learning is an increase of the range of meanings which are available to an individual or learning a language is not the same thing as learning about a language. Also, language is a social phenomenon and language learning is therefore a social activity. (Grosjean 1982: 182)

There are two main types of language acquisition: simultaneous and successive. According to the McLaughlin's (1978) age criterion to differentiate between the two types: a child who acquires two languages before the age of three is regarded as doing so simultaneously, whereas a child who acquires one language in infancy and the second after age three is considered to be doing successively. (Grosjean 1982: 179).

Review of studies related to bilingualism

The study of bilingualism is carried out majorly on four domains:

a. Studies related to theories of language acquisition in bilinguals.

b. Studies related to stages of language acquisition in bilinguals.

c. Studies related to milestones of language acquisition in bilinguals.

d. Studies related to models of bilinguals.

A. Studies related to theories of language acquisition in bilinguals

Theories of second language acquisition and teaching have a huge impact on learning. Generally, approaches provide information about how people acquire their knowledge of the language and about the conditions which will promote successful language learning. There are mainly three theories involved in bilingual language acquisition which will be briefly described: The Creative Construction Theory, Communicative Language Teaching and the Cognitive Approach.

i) Creative Construction Theory or the Naturalistic Approach

This approach is based on the assumption that language acquisition is innately determined and that we are born with a certain system of language that we can call on later. Numerous linguists and methodologists support this innateness hypotheses. Chomsky, who is the leading proponent, claims that each human being possesses a set of innate properties of language which is responsible for the child's mastery of a native language in such a short time (cf. Brown 2002: 24).

According to Chomsky, this mechanism, which he calls the 'language acquisition device' (LAD), 'governs all human languages, and determines what possible form human language may take' (Dulay, Burt, Krashen 1982: 6ff). Some linguists, in particular Stephen Krashen, distinguish between acquisition and learning. Acquisition is

supposed to be a subconscious process which leads to fluency. Learning, on the other hand, is a conscious process which shows itself in terms of learning rules and structures.

Furthermore, Krashen claims that there are three internal processors that operate when students learn or acquire a second language: the subconscious 'filter' and the 'organizer' as well as the conscious 'monitor' (cf. Dulay, Burt, Krashen 1982: 11-45). The 'organizer' determines the organisation of the learner's language system, the usage of incorrect grammatical constructions as provisional precursors of grammatical structures, the systematically occurrence of errors in the learner's utterances as well as a common order in which structures are learnt. The 'filter' is responsible for the extent to which the learner's acquisition is influenced by social circumstances such as motivation and affective factors such as anger or anxiety. The 'monitor' is responsible for conscious learning. The learners correct mistakes in their speech according to their age and self-consciousness (cf. Dulay, Burt, Krashen 1982: 45).

Krashen's Input Hypothesis: This hypothesis by Stephen Krashen is one of the most controversial theoretical perspectives in Second Language Acquisition. It is based on a set of five interrelated hypotheses that are listed below:

1. The Acquisition-Learning Hypothesis - Krashen claims that there is a difference between acquisition and learning. Acquisition is 'a subconscious and intuitive process of constructing the system of a language, not unlike the process used by a child to 'pick up' a language'. Learning is a conscious process in which 'learners attend to form, figure out rules, and are generally aware of their own process' (Brown 2002: 278).

2. The Monitor Hypothesis -The monitor has nothing to do with acquisition but with learning. The learned system acts only as an editor or 'monitor', making minor changes and polishing what the acquired system has produced. According to Krashen, three conditions are necessary for monitor use: 1. sufficient time, 2. focus on form, 3. knowing the rules (cf. Lightbown, Spada 1995: 27).

3. The Natural Order Hypothesis - This hypothesis states that we acquire the rules of a language in a certain order that is predictable (cf. Lightbown, Spada 1995: 27). However, this does not mean that every acquirer will acquire grammatical structures in exactly the same order. It states rather that, in general, certain structures tend to be acquired early and others to be acquired late. (cf. Krashen, Terrell 1983: 28)

4. The Input Hypothesis -This hypothesis states that it is important for the acquirer to understand language that is a bit beyond his or her current level of competence. This means, if a learner is on a level i the input he gets should be i + 1. This means that the language that learners are exposed to should be just far enough beyond their current competence that they can understand most of it but still is challenged to make progress (cf. Brown 2002: 278).

5. The Affective Filter Hypothesis -This hypothesis states that it is easier for a learner to acquire a language when he/she is not tense, angry, anxious, or bored. According to Dulay and Burt, performers with optimal attitudes have a lower affective filter. A low filter means that the performer is more open to the input language. (cf. Krashen, Terrell 1983: 38) .Krashen's assumptions have been hotly disputed. Many psychologists like McLaughlin have criticised Krashen's unclear distinction between subconscious (acquisition) and conscious (learning) processes.

According to Brown, second language learning is a process in which varying degrees of learning and of acquisition can both be beneficial, depending upon the learner's own styles and strategies. Furthermore, the i + 1 formula that are presented by Krashen raise the question how i and 1 should be defined. Moreover, what about the 'silent period'? Krashen states that after a certain time, the silent period, speech will 'emerge' to the learner, which means that the learner will start to speak as a result of comprehensible input. Nevertheless, there is no information about what will happen to the learners, for whom speech will not 'emerge' and 'for whom the silent period might last forever' (Brown 2002: 281).

ii) Communicative language teaching approach

According to Littlewood, one of the most important aspects of 'communicative language teaching is that it pays systematic attention to functional as well as structural aspects of language' (Littlewood 1981: 1). One of the most important aspects is pair and group work. Learners should work in pairs or groups and try to solve problematic task with their available language knowledge.

Howatt also distinguishes between a weak and a strong version of Communicative Language Teaching. The weak version, which seems to be standard by now, stresses the importance of providing learners with opportunities to use their English for communicative purposes. The strong version claims that language is acquired through communication (cf. Howatt 1984: 279).

Theory of language- A central aspect in Communicative Language Teaching is communicative competence. Hymes defines competence as what a speaker needs to know in order to be communicatively competent in a speech community. This includes both knowledge and ability for language use. In his book Teaching Language as Communication (1978) (quoted in Richards, Rodgers 1986: 71)

Widdowson presented a view of the relationship between linguistic systems and their communicative values in text and discourse. Moreover, Canale and Swain (1980) (cf. Richards, Rodgers 1986: 71) found four dimensions of communicative competence that are defined as 1. grammatical competence, 2. sociolinguistic competence, 3. discourse competence, and 4. Strategic competence.

Theory of learning Although there is little discussion of learning theory, there are still some elements that, according to Richards and Rodgers (1986), can be defined as communication principles, task principles and meaningfulness principles. The first one includes activities that involve real communication which are supposed to promote learning. The second element describes activities in which language is used for carrying

out meaningful tasks which are also supposed to promote learning. The last one states that language that is meaningful to the learner supports the learning process. Of great importance is meaningful and authentic language use (cf. Richards, Rodgers 1986: 72).

iii) Cognitive Approach

The Cognitive Approach Cognitive psychologists claim that one of the main features of second language acquisition is the building up of a knowledge system that can eventually be called on automatically for speaking and understanding. At first, learners have to build up a general knowledge of the language they want to understand and produce. After a lot of practice and experience they will be able to use certain parts of their knowledge very quickly and without realising that they did so. Gradually, this use becomes automatic and the learners may focus on other parts of the language.

The cognitive theory is a relative newcomer to second language acquisition and there have been only a few empirical studies about this approach so far. Although we know that the processes of automatizing and restructuring are central to the approach, it is still not clear what kinds of structures will be automatized through practice and what will be restructured. Also it cannot predict which first language structures will be transferred and which will not. As far as the phenomenon of 'restructuring' is concerned, psychologists state that things that we know and use automatically may not necessarily be learned through a gradual build-up of automaticity but they may be based on the interaction of knowledge we already have. They may also be based on the acquisition of new knowledge which somehow 'fits' into an existing system and may, in fact, 'restructure' this system (cf. Lightbown, Spada 1995: 25).

McLaughlin's Attention-Processing Model -This model connects processing mechanisms with categories of attention to formal properties of language. Consequently there are four cells. The first one refers to 'focal automatic processes' like the student's performance in a test situation or a violin player performing in a concert. The second one characterises 'focal controlled processes'' such as the learner's performance based on formal rule learning. The next cell refers to 'peripheral controlled processes' such as

the phenomenon of learning skills without any instruction. The last cell focuses on 'peripheral automatic processes' and can be related to a learner's performance in situations of communication. 'Controlled processes are "capacity limited and temporary", and automatic processes are "relatively permanent"' (McLaughlin et al. 1983: 142 in Brown 2002).

Automatic processes mean processing in a more accomplished skill which means that the brain is able to deal with numerous bits of information simultaneously. According to Brown, 'the automatizing of this multiplicity of data is accomplished by a process of restructuring in which the components of a task are co-ordinated, integrated, or reorganised into new units, thereby allowing the …old components to be replaced by a more efficient procedure' (McLaughlin 1990b: 188 in Brown 2002).

Implicit and Explicit Models -According to Brown and other linguists, there is a distinction between implicit and explicit linguistic knowledge. Explicit knowledge means 'that a person knows about language and the ability to articulate those facts in some way' (Brown 2002: 285). Implicit knowledge is 'information that is automatically and spontaneously used in language tasks. […] Implicit processes enable a learner to perform language but not necessarily to cite rules governing the performance.' (Brown 2002: 285)

Instead of implicit and explicit Bialostok uses the terms 'unanalysed' an 'analysed' knowledge. Unanalysed knowledge is described as 'the general form in which we know most things without being aware of the structure of that knowledge; on the other hand, learners are overtly aware of the structure of analysed knowledge' (Brown 2002: 286). Furthermore, these models also distinguish between automatic and non-automatic processing which is builds on McLaughlin's conception of automaticity. Brown states that 'automaticity refers to the learner's relative access to the knowledge. Knowledge that can be retrieved easily and quickly is automatic. Knowledge that takes time and effort to retrieve is non-automatic' (Brown 2002: 286). Another significant fact

in second language performance is 'time'. It takes learners a different amount of time until they produce language orally.

According to Manfred.P. (2003) in developmental dynamics in L1 and L2 acquisition: Process ability Theory and generative entrenchment has two major objectives: (I) to summarize Process ability Theory, a processing-oriented approach to explain language development and (2) to utilize this theory in the comparison of development in LI and L2 acquisition. Proponents of the Fundamental Difference Hypothesis (between L1 and L2) assumed that LI development can be explained with reference to Universal Grammar (UG) which, in their view, is inaccessible to L2 learners. Instead, they claim that a second language develops on the basis of language processing strategies. It also shows that the fundamentally different developmental paths inherent in first and second language acquisition. On the basis of the same language processing mechanics (as specified in Process ability Theory), it was demonstrated that the developmental differences between LI and L2 are caused by the qualitatively different early structural hypotheses which propagate through the acquisition process. The concept of "propagation of structural Features" will be viewed as "generative entrenchment," a logical-mathematical concept, which has proved to be highly productive in examining other kinds of developmental processes.

Ton Dijkstra and Marco Haverkort (2004) offered a model of language development within a processing perspective; then it sketches a modular view of language, in which competence is embodied in the processing mechanisms. Then they proposed a novel approach to language acquisition (Acquisition by Processing Theory, or APT), in which development of the module occurs as a natural product of processing activity, without any acquisition mechanisms as such. The approach is illustrated and explicated through examples of the development of content words, derivational morphology, the functional category I with its variable features, and Case and thematic roles, as well as apparent cross-linguistic variation in processing strategies and the status of bootstrapping in the model. Then it examined some possible applications to issues in second language acquisition – noticing the gap, the initial state, transfer, and the

apparent limits of SLA – and finally offerd a broader perspective on the model: its scope, its relations to other approaches, and its possible limits.

Neeraja (2004) conducted a study to compare the code switching behaviour exhibited by Tamil-English bilingual persons with stuttering and normal fluency. Results revealed an increase in frequency of occurrence in code switching utterances in persons with stuttering when compared to normal fluent individuals matched for the language background.

Kees Debot etal (2007) - A Dynamic Systems Theory approach to second language acquisition argued that language can be seen as a dynamic system, i.e. a set of variables that interact over time and that language development can be seen as a dynamic process. Language development shows some of the core characteristics of dynamic systems: sensitive dependence on initial conditions, complete interconnectedness of subsystems, the emergence of attractor states in development over time and variation both in and among individuals. The application of tools and instruments developed for the study of dynamic systems in other disciplines calls for different approaches to research, which allow for the inclusion of both the social and the cognitive, and the interaction between systems. There is also a need for dense data bases on first and second language development to enhance our understanding of the fine-grained patterns of change over time. Dynamic Systems Theory is proposed as a candidate for an overall theory of language development.

Nick C. Ellis (2007) -Dynamic Systems Theory characterization of L2 acquisition as an emergent process marks the coming of age of second language acquisition research. It is an important theoretical maturation in that it brings together the many factors that interact in the complex system of language, learning, and use. It is an approach that has been budding for some time .

According to Jürgen M. Meisel (2011), in bilingual language acquisition and theories of diachronic change: Bilingualism as cause and effect of grammatical change-

examined children acquiring their first languages are frequently regarded as the principal agents of diachronic change. The causes and the precise nature of the processes of change are, however, far from clear. The following discussion focuses on possible changes of core properties of grammars which, in terms of the theory of Universal Grammar, can be characterized as reflecting different settings of parameters. In such cases, learners develop grammatical competences differing from those of speakers of the previous generation who provided the primary data serving as input for the developmental processes.

It has been argued that re analyses of this type must be conceived of as instances of transmission failure. Yet acquisition research has demonstrated that the human Language Making Capacity is extraordinarily robust, thus leading to the question of what might cause unsuccessful acquisition. Changing frequencies in use or exposure to data containing ambiguous or even contradictory evidence are unlikely to suffice as causes for this to happen. Language acquisition in multilingual settings may be a more plausible source of grammatical reanalysis than monolingual first language development. The study of contemporary bilingualism can therefore contributed to an explanation of diachronic change.

Yet one such insight is that simultaneous acquisition of two languages (2L1) typically leads to a kind of grammatical knowledge in each language which is qualitatively not different from that of the respective monolinguals, obliging us to look for other sources of transmission failure. 2L1 acquisition in settings where one language is "weaker" than the other has been claimed to qualify as such. But I will argue that even such problematic cases do not provide convincing evidence of reanalysis. If, on the other hand, children receive sustained input from second language learners, or if their onset of acquisition is delayed, this can indeed lead to incomplete acquisition. It has been concluded that successive acquisition of bilingualism plays a crucial role as a source of grammatical change. In order for such changes to happen, however, grammar-internal and language-external factors may have to concur.

So, the findings concluded from above studies regarding theories of language acquisition in normal suggested that it is all because of (Language Acquisition Devices and Universal Grammar) ;and certain theories related to language acquisition theory such as biological maturation theory , linguistic theory , social interaction theory , information processing theory , cognitive theory but in theories involved in bilinguals shows that core issues in SLA a Dynamic system theory approach may help us develop a more realistic idea of language learning in bilinguals. Dynamic system approach to SLA provides a framework and instrumentation that allows to merge the social and the cognitive aspects of SLA and shows how their interaction can lead to development of language in bilinguals.

B. Studies related to stages of language acquisition in bilingual children

In simultaneous bilingual children language acquisition takes place in two stages. The first stage is an undifferentiated, "single-language system composed of elements from both languages. The same developmental processes that occur in a monolingual child –single words, increased vocabulary, emergence of two-word combinations , use of verb tenses, and so on-also occur in this undifferentiated stage of simultaneous bilingualism; the main difference is that two languages are involved. For example, the child may know an object's name in one language but not the other or use words from both languages in a single sentence(language mixing) , or use word stems of one language with prefixes and suffixes from another language (language blend).

The second stage occurs when a child begins to differentiate the two language systems, using each one as a separate system for distinct purposes. The child may learn to associate each language with a specific person (parent vs. babysitter), or situation (home vs. adults), or situation (home vs. playground).He then develops the ability to alternate language, using a specific language to communicate in a specific context. If the family code-switches multiple times within one conversation, the child will also learn that pattern and recognize that two different languages are being used.

Victoria Fierro- Cobas, M.D. (2001) described the stages of bilingual acquisition on the basis of age of the child. It is as follows:

Age	Stages
Birth to 2 months	cooing
2-6 months	babbling
6-15 months	first words
1-2 year	Language blend
2-3 year	Language mixing
4 years and older	Uses each language as a separate system.

There is a growing body of literature on how the development of language acquisition takes place in bilingual. The study of bilingualism is useful tool for examining language acquisition. Research on raising a bilingual child, shows it is not very easy and there is no inevitability that a child who grows up in a bilingual family becomes bilingual in every case. When a child's parents speak different languages, the child can stop talking. On the other hand, he can start using a combination of both the languages. If a child is bilingual from the beginning then it is worthy he expresses both languages often, otherwise he forgets them easily. This can happen if a child can speak two different languages and then moves away to another country. As a result he can lose the ability to speak one of the languages. (Baker, Jones 1998: 22, 658).

Children living in bilingual families do not always become bilingual. It depends on practice in speaking that is needed and also on the quantity, form, and quality of this practice. There are many factors affecting the upbringing of a bilingual child. One of them is connected with the place where the child grows up. For example, there is a case when an aunt or an uncle speaks a different language from the child's and he wants to understand them. Another factor deals with the amount of contact with each language. Also, the linguistic environment becomes the decisive aspect in speech acquisition.

There were several kinds of research done that showed that each child is different and also parents are different. (Gosjean 1982: 168-169) Certain parents observed their

child and his behaviour. Mostly, there were differences in the ages of language acquisition. Therefore, it is very difficult to compare children and their language acquisition, behaviour or age. Knowledge of the other language brings a kind of socialization. For example, a child speaks English with his parents and the family live in Spain. Then, the only way for the child to meet other people or play with other children is to speak to them and also to understand them in Spanish. It is the same case at schools with teachers and friends. (Taeschner 1983: 192; Grosjean 1982: 172)

i) Studies related to Phonetics/Phonology

Phonetics vs. Phonology in Loanword Adaptation: Revisiting the Role of the Bilingual In recent studies of loanword adaptation, two main sides have emerged. Phonological accounts posit that foreign words are adapted on the basis of similarity between receptor language (L1) and source language (L2) phonemic categories by bilinguals with access to the phonology of both L1 and L2 (e.g. Laterite and Paradis 2002, 2005). On the other hand, phonetic accounts emphasize the influence of low-level perceptual factors in the mapping from L2 to L1 forms (e.g. Silverman 1992, Peperkamp and Dupoux 2003). In this paper, I present evidence from Burmese in favor of an intermediate model (cf. Kenstowicz 2001, to appear ; Yip 2002, 2006; Heffernan 2005) incorporating both language-independent phonetics and language-particular phonology. On the basis of a corpus of 200 loanword adaptations from English into Burmese, I first show that while Burmese loanword adaptation involves multiple scansions like Cantonese (cf. Silverman 1992), the first scansion in Burmese is phonological. For example, English allophonic ally aspirated [p^h] is consistently adapted with Burmese /p/ (cf. 1a-c) rather than Burmese /p^h /, which is used instead to represent English [f] (cf. 2a-c). This mapping cannot be accounted for in a model where acoustic perceptual similarity is the only consideration in adaptation.

According to Wendy Baker (2002) examined the influence of cross-language similarity and age at the time of L2 acquisition on the organization of a bilinguals' L1 and L2 phonetic systems. In particular, this study tested three hypotheses. The first

hypothesis was that more similar vowels across the two languages would be more likely to influence each other than those that are less similar across the two languages. The findings of this study indicated that this hypothesis was upheld: Both early and late bilinguals were more likely to produce differences between English and Korean vowel pairs that were relatively dissimilar from each other more than those that were relatively similar to each other. In fact, the extent to which L1 and L2 segments interacted depended on how perceptually similar those segments were.

The second hypothesis of this study was that, because early bilinguals are initially less likely than late bilinguals to associate L2 sounds with L1 sounds, they would also be more likely to maintain differences between L1 and L2 vowels even at initial stages of L2 learning. This hypothesis was also upheld by the results of this study: Even at beginning stages of L2 learning, early bilinguals were more likely than late bilinguals to produce differences between English and Korean vowels, especially those that were the most confusable across the two languages. Such findings suggest that, as occurs in bilingual first-language acquisition, younger L2 learners have two phonetic systems even at the onset of learning a second language. The final hypothesis of this study was that, because they are less likely initially to identify L2 sounds with L1 sounds, with more L2 experience, younger L2 learners would be more likely than older L2 learners to keep their two languages separate. This hypothesis was also supported by this study. Early bilinguals were able to produce differences between highly confusable English and Korean vowel pairs after 7 years of L2 experience. In contrast, late bilinguals with a similar amount of English experience were not able to do so.

These findings suggest that the native language exerts a lesser degree on the second language for early than for late bilinguals, or that the early learners were better able to separate at least some L2 sounds from L1 sounds. These findings suggest that late bilinguals maintain only one phonetic system (L1) even after several years of being exposed to and speaking the L2. In contrast, these findings seem to suggest that early bilinguals maintain two separate phonetic systems, and do so from the onset of L2 learning. Thus, early bilinguals, even those who learn their L2 in later childhood (like

the participants in this study) learn sounds more similarly to simultaneous bilinguals than to adult L2 learners. Further analyses will reveal the extent to which these early and late bilinguals are able to maintain separate categories (long-term memory representations) for L1 and L2 sounds and the nature of these categories, providing greater insight in how cross-language similarity and age of L2 acquisition influence the organization of a bilinguals' two phonetic system. In addition, further analyses will explore the nature of the relationship between highly similar vowels across the two languages, or those sounds which neither the early nor the late bilinguals were able to separate across the two languages.

In summary, the findings of this study shed light on why there are differences between the two phonetic systems of early and late bilinguals. In particular, because the L1 categories are still developing when the second language is learned, early bilinguals develop a separate system for native- and second-language sounds. In contrast, adults, because their native-language system is completely developed by the time they learn a second language, develop categories that resemble a unidirectional influence from the L1 to the L2. In short, these findings demonstrate that the state of the bilinguals' native language system at the time of second-language learning and the amount of similarity between native- and second-language segments may explain why there are differences in how the two languages interact in early versus late bilinguals.

A study done by Shylaja ,Abraham,Thomas, and Swapna (2011) compared the nonword repetition abilities of eight simultaneous and sequential Kannada-English bilinguals within the age range of seven to eight years.The children were asked to repeat Kannada nonwords which differed in syllable length .Results were obtained for both accuracy of nonwords repetition based on the length and errors made by the children. The overall result indicated better phonological working memory skill in sequential bilinguals compared to simultaneous bilinguals which can be attributed to the age of acquisition effects of the second language and also on the amount of exposure and the use of first and second language .Simultaneous bilingual showed significant difficulty in repeating both the four and five syllabic nonwords. Simultaneous bilinguals also

produced more consonant and vowel errors compared to the sequential bilinguals. The errors were predominantly the syllable substitution error rather than the additions or omission errors.

ii) Studies related to Morpho-syntax

There are three stages of a development of a child proposed by Volterra and Taeschner (1978). At the first stage a child has one lexicon with words from both languages and there is rarely any overlap in the words taken from both languages. It means that if a child uses a certain word in one language, he does not use it in the other one. The second stage is characterized as distinction of two different lexicons but applying the same syntactic rules to both languages. The child usually knows a word in one language and a corresponding one in the other language. In the third stage, two languages of a child are differentiated in lexicon and syntax. (Grosjean 1982: 183-188)

Another division into stages was proposed by T. Taeschner. The author divided the word acquisition and the development of basic sentence structure. These stages are optional and do not have to be considered as decisive or crucial, of course. Again, it is very individual and there definitely are many exceptions.

In the Indian context, a study was done by Anagha and Vijayalakshmi (2010) to investigate the changes in syntactic processing as an effect of healthy aging in a multilingual population. Two groups, both older and younger group who were proficient in three Indian languages (Kannada, Telugu, and Hindi) were considered for the study. The findings from the study revealed that the older group performed more poorly than younger group indicating a decline in syntactic processing abilities due to declining age and these changes were attributed to attention demands required for syntactic processing. The overall result suggested differences in performance between males and females in some subsections of Linguistic Profile Test (Karanth, 1980; Monika & Karanth, 1995; Suhasini, & Karanth, 1997) unveiling that males are more prone to decline in syntactic abilities due to advancing age compared to females. The decline in

the languages was observed in the order of L1<L2<L3, where L3 showed the maximum decline irrespective of age gender. These results can be ascribed to the fact that the usage of language in daily communication play a very vital role in individual's language proficiency and the decline observed during the aging process. The studies report that aging bilinguals seem to have protection for cognitive decline.

iii) Studies related to semantics and pragmatics

Katherine W. et al (2003) explored the role of age of acquisition in picture naming with a group of unbalanced, late bilinguals and a group of monolinguals. They hypothesised and founded the effects of L2 age of acquisition on L2 picture naming performance in late bilinguals if the ages of acquisition effects we and others have found in L1 picture naming are not limited to language capabilities acquired early in the lifespan. In Experiment 1, late bilingual Spanish–English participants named a large set of pictures in their L2 (English). The most important predictor of naming ability was L2 age of acquisition. In Experiment 2, monolingual English participants named the same pictures. Naming speed was predicted by L1 age of acquisition. Hence speed of picture naming in a given language was predicted by age of acquisition values for that language, that is, L2 values predicted L2 performance (Experiment 1) and L1 values predicted L1 performance (Experiment 2). On the basis of these results they concluded that age of acquisition effects are not restricted to items learned before any putative critical period, but should be observed for items learned at any age. That is, age of acquisition effects are more likely to be due to the relative order in which items are acquired within a language.

According to Thomas Roeper (2001) in modular an pragmatic perspectives on minimal default grammar. They compared the results from monolingual children with object omissions in bilingual children who have acquired two languages simultaneously. Our longitudinal studies of bilingual Dutch±French, German±French, and German±Italian children show that the bilingual children behave like monolingual children regarding the type of object omissions in the Romance languages. They differ from monolingual children with respect to the extent to which object drop is used. At the

same time, the children differentiate the two systems they are using. We want to claim that the difference between monolingual and bilingual children concerning object omissions in the Romance languages is due to cross linguistic influence in bilingual children: the Germanic language influences the Romance language.

Cross linguistic influence occurs once a syntactic construction in language A allows for more than one grammatical analysis from the perspective of child grammar and language B contains positive evidence for one of these possible analyses. The bilingual child is not able to map the universal strategies onto language-specific rules as quickly as the monolinguals, since s/he is confronted with a much wider range of language-specific syntactic possibilities. One of the possibilities seems to be compatible with a universal strategy. We would like to argue for the existence of cross linguistic influence, induced by the mapping of universal principles onto language-specific principles ± in particular, pragmatic onto syntactic principles. This influence will be defined as mapping induced influence. We will account for the object omissions by postulating an empty discourse-connected pro in pre-S position (Muller, Crysmann, and Kaiser, 1996; Hulk, 1997). Like monolingual children, bilingual children use this possibility until they show evidence of the C-system (the full clause) in its target form.

Many simultaneous bilinguals exhibit loss or incomplete acquisition of their heritage language under conditions of exposure and use of the majority language (Silva-Corval´an, 1994, 2003; Polinsky, 1997; Toribio, 2001; Montrul, 2002). Recent work within discourse-functional (Silva-Corval´an 1994) and generative perspectives (Sorace, 2000; Montrul; 2002; Tsimpli, Sorace, Heycock, Filaci and Bouba, 2003, in press) suggests that while syntax proper is impervious to language loss attrition, syntax-related interfaces like lexical-semantics and discourse-pragmatics are not. This study investigates argument expression in adult simultaneous bilinguals who are heritage speakers of Spanish, because in this language subjects, direct, and indirect objects are regulated by syntactic, pragmatic and semantic factors.

It was hypothesized that if language loss affects interface areas of competence more than the purely syntactic domains, then Spanish heritage speakers should display robust knowledge of null subjects as well as object clitics, but variable behaviour in the pragmatic distribution of null vs. overt subjects, the a preposition with animate direct objects, and cases of semantically based dative clitic-doubling. Results of an oral production task administered to 24 intermediate and advanced heritage speakers and 20 monolinguals confirmed the hypotheses. With the erosion of pragmatic and semantic features, the grammars of the intermediate proficiency Spanish heritage speakers appear to display morpho-syntactic convergence with English in the expression of subject and object arguments. In conclusion, these results provide further evidence that syntax proper is spared from language erosion/attrition, while discourse-pragmatic and cognitive-semantic domains, which are dependent on input, use and context, are more unstable and vulnerable to change under cross linguistic influence in the grammars of bilinguals. With the erosion of pragmatic and semantic features, the grammars of bilinguals tend to converge at the morpho-syntactic level.

Wing and Jia (2010), explored whether English–Mandarin bilingual children have mastered discourse skills and whether they show sensitivity to the discourse principle of information status of referents in their speech and gestures. We compare the speech and gestures produced by bilingual children to those produced by English- and Mandarin-speaking monolingual children. Six English-speaking and six Mandarin-speaking monolingual children, and nine English–Mandarin bilingual children (who were more dominant in English) were videotaped while interacting with their caregivers. Monolingual Mandarin- and English-speaking children produced null arguments and pronouns respectively to indicate given third-person referents, and nouns to indicate new third-person referents. They also gestured new third-person referents more often than given third-person referents. Thus, monolinguals' speech and gestures followed the discourse principle. English–Mandarin bilingual children's speech gestures also followed the discourse principle but only when they were speaking in English.

They produced nouns more often to indicate given third-person referents than to indicate new third-person referents in Mandarin, indicating the violation of the discourse principle. It is interesting that they gestured new third-person referents more often than given third-person referents in Mandarin. Thus, our findings suggest that gesture precedes language development at discourse level in the less-dominant language in bilinguals.

Geetha in 2010 conducted a study on code mixing and code switching in Tamil proverbs across age and social variables. She found that, borrowed proverbs are used by the younger generation in Tamil language because of the fact that, younger generation students have learned these borrowed proverbs in school as part of their peer communication. These participants employed the borrowed lexical items of the native language like cycle, bullet, aero plane, full, figure so forth.

Margaret Deuchar (1999) paper investigated` `mixed" early two-word utterances by bilinguals, in order to determine whether function words match the language context less frequently than content words. Data collected in two language contexts from a child acquiring English and Spanish from birth were used to identify those two-word utterances occurring in the first two months of two-word utterances, between the ages of 1;7 and 1;9. Those utterances containing one word from each language, where one word was a function and the other a content word, were analyzed quantitatively to determine whether the function word was more or less likely to match the context than the content word. The result showed that function words matched the context considerably less than content words. This finding was interpreted as suggested that function words may not be treated as language-specific by early bilinguals, whereas content words are. It reinforces the significance of the well-established function/content distinction in language acquisition theory in a way which would not be possible with monolingual data.

Bosch & Sebastián-Gallés (1997) have found that 4- month old infants exposed to both Spanish and Catalan have similar language differentiation abilities, indicated that reduced exposure to each language does not delay the emergence of this ability in

bilinguals (Sebastián-Gallés & Bosch, in press). The ability to distinguish between two languages early in development provides an important part of the foundation for building separate linguistic systems. Research that has examined the early perception of segmental features of speech has found that children with dual language exposure from birth exhibit the same abilities as monolingual children but at a somewhat later age Monolingual infants' are initially able to discriminate phonetic contrasts that are not necessarily phonemic in their native language.

However, their discrimination abilities become language-specific during the second half of the first year of life so that they continue to discriminate contrasts that are phonemic in their native language, but cannot discriminate contrasts that are not phonemic. Vowel contrasts are perceived phonemically earlier (by 6-8 months of age; Bosch & Sebastian-Galles, 2003; Kuhl et al., 1992) than consonant contrasts (by 8-10 months of age; Werker & Tees, 1984).

Children with dual language exposure have similarly shown a delay in the ability to use phonetic contrasts in word learning. More specifically, Fennell, Polka, & Werker (2002) found that while monolingual children were able to associate new words that differed by a minimal consonant contrast (i.e., /bih-dih/) with novel-shapes at 17 months of age, bilingual children were able to do so only by 20 months of age. In contrast, research on word segmentation by Polka & Sundara (2003) found that French-English bilingual children were able to segment words from continuous speech in both their native languages by 7 months of age, like monolingual children.

At the same time, early recognition of word forms in bilingual (and even monolingual) children may be sensitive to amount of exposure. Vihman and her colleagues reported that 11-month old bilingual Welsh-English children in Wales failed to show differential preference for familiar over unfamiliar words in a head turn preference study, while monolingual English children of the same age did (Vihman, Lum, Thierry, Nakai & Keren-Portnoy, 2005). Vihman also reported that 11-month old monolingual Welsh-speaking children failed to demonstrate a preference and suggested

that the bilingual and monolingual ch ildren's performance with respect to Welsh might be due to the relatively low status and associated lower level of usage of Welsh in comparison to English.

Oller et al (1997) found that the age of onset of canonical babbling was the same (i.e., around 27 weeks of age) for a group of bilingual English-Spanish children and English mono linguals, and Maneva & Genesee (2002) reported evidence of differentiated babbling by a 10-15 month old French-English bilingual child that corresponded to patterns attested in monolingual French and English babbling. These researchers analyzed prosodic features of babbling, such as utterance length and syllable structure (e.g., open/closed syllables).

In contrast, Poulin-Dubois & Goodz (2001) failed to find language-specific differences in the babbling of French-English bilinguals of the same age when they examined segmental features (i.e., differences in place and manner of articulation). When BFL children start producing words, they sometimes show signs of prosodic differentiation from quite early in development. For example, Paradis (2001) found that 2-year old French-English bilinguals were more likely to omit syllables from novel four-syllable words in each language based on the typical stress patterns of that language.

Whether and/or when bilingual first learner children have two language-specific segmental phonological repertoires is not clear. In some studies, bilingual children's segmental phonology has been reported to be similar to same age monolingual children throughout the preschool years with respect to phonetic substitutions (e.g., substituting [l] for [r] in the Spanish word "cruz"; from Barlow, 2002; Bell, Müller, & Munro, 2001; Holm & Dodd, 1999), voice onset times (Johnson & Wilson, 2002; Kehoe, Lleó, & Rakow, 2004), and consonant harmony and syllable reduplication (Brulard & Carr, 2003; Johnson & Lancaster, 1998; Schnitzer & Krasinski, 1996).

Other studies have pointed to delays or differences relative to monolingual children on some of the very same measures (Deuchar & Clark, 1996; Johnson &

Wilson, 2002; Schnitzer & Krasinski, 1994). The variability observed in the phonological development of bilingual first learner learners could be linked to multiple influences some that are the same as those that influence monolingual phonological development and some that are particular to bilingual first language acquisition.

One of the studies done by Vera .F. Gutierrez, Clellen (2005) was twofold: (a) to examine whether English finite morphology has the potential to differentiate children with and without language impairment (LI) from Spanish-speaking backgrounds and different levels of English proficiency in comparison to Hispanic English speakers and (b) to investigate the extent to which children who are bilingual exhibit differences in their grammatical performance because of cross-linguistic influence from their first language. Seventy-one children between the ages of 4 years, 5 months and 6 years, 5 months were distributed into the following five groups: English as a first language (EL1) speakers with typical language development (TLD), EL1 speakers with LI, Spanish–English bilinguals with TLD, Spanish–English bilinguals with LI, and English as a second language (EL2) learners with TLD were compared on regular verb finiteness and nominative subject use using spontaneous narrative samples. The EL1 children with LI had significantly lower verb accuracy rates than the EL1 controls with TLD. Verb finiteness marking was also a significant discriminator for the bilinguals with LI. There was no evidence of cross-linguistic influence, however.

The analysis indicated no significant differences between EL1 and bilingual children on subject or verb use. The EL2 group only presented difficulties with finite verb use. The typological differences between English and Spanish for overt subject use did not seem to affect the performance of either typical or atypical bilingual learners. The findings underscore the need for addressing language dominance in future bilingual studies.

Ioulia Kovelman, etal, (2008) studied how does age of first bilingual language exposure affect reading development in children learning to read in both of their languages? Is there a reading advantage for monolingual English children who are

educated in bilingual schools? They studied children (grades 2–3, ages 7–9) in bilingual Spanish–English schools who were either from Spanish-speaking homes (new to English) or English-speaking homes (new to Spanish), as compared with English-speaking children in monolingual English schools. An early age of first bilingual language exposure had a positive effect on reading, phonological awareness, and language competence in both languages: early bilinguals (age of first exposure 0–3 years) outperformed other bilingual groups (age of first exposure 3–6 years).

Remarkably, schooling in two languages afforded children from monolingual English homes an advantage in phoneme awareness skills. Early bilingual exposure is best for dual language reading development, and it may afford such a powerful positive impact on reading and language development that it may possibly ameliorate the negative effect of Englishon literacy. Further, age of first bilingual exposure provided a new tool for evaluating whether a young bilingual has a reading problem versus whether he or she was a typically-developing dual language learner.

Joanne F. (2009) investigated that the developing metalinguistic capabilities of Hispanic primary school children who are becoming bilingual but whose English reading achievement was below average. Two questions were posed: first, do native- and second-language vocabulary and degree of bilingualism contribute to performance on a metalinguistic task (defining words) and, second, do native- and second-language vocabulary and metalinguistic development at the word level significantly predict reading comprehension in the Spanish .The results showed that performance on the definition task in English and in Spanish was significantly explained by word knowledge in the language of the task; performance on the definition task in the other language (English or Spanish) but not degree of bilingualism contributed significantly, after the effects of vocabulary in the two languages were accounted for both native- and second-language vocabulary and phonological awareness independently contributed to achievement in English reading comprehension. The results suggested that, for children with limited native-language development in the early stages of bilingualism, vocabulary development in both the native and second language and metalinguistic

development at the word level may be important education priorities because of their effects on second-language reading comprehension.

Virginia C. (2009) explored the extent to which bilingual speakers in stable bilingual communities become fully bilingual in their two community languages. Growing evidence showed that in bilingual communities in which one language is very dominant, acquisition of the dominant language may be quite unproblematic across sub-groups, while acquisition of the minority language can be hampered under conditions of reduced input. In Wales, children are exposed to both English and Welsh from an early age, either in the home or at school, or both. The data reported here indicate that regardless of home language background, speakers develop equivalent, mature command of English, but that command of Welsh is directly correlated with the level of input in Welsh in the home and at school. Furthermore, maintenance of Welsh in adulthood may be contingent on continued exposure to the language. The data have implications for theories of bilingual acquisition in stable versus immigrant bilingual communities, for optimal conditions for bringing up bilingual children, and for theories of critical periods of acquisition.

Peggy P. K. Mok (2011) studied and investigated the acquisition of speech rhythm by Cantonese–English bilingual children and their age-matched monolingual peers. Languages can be classified in terms of rhythmic characteristics that define English as stress-timed and Cantonese as syllable-timed. Few studies have examined the concurrent acquisition of rhythmically different languages in bilingual children. This study uses data of six Cantonese–English bilingual children around age 3; 0 and compares them with six monolingual children in each language using recently developed acoustic rhythmic metrics on consonantal, vocalic and syllabic intervals. Qualitative data on syllable structure complexity and vowel quality are also included. Results on syllable duration showed that monolingual children display distinct rhythmic patterns while the differences between the two languages of the bilingual children are less distinct. Bilingual English has less durational variability than monolingual English. Bilingual children have a distinct phonological developmental trajectory from monolingual

children, which is manifested in acquisition delay and is influenced by language dominance. This showed that the two phonologies interact at the prosodic level.

Li sheng, (2011) examined two groups of Mandarin–English bilingual children (3–5-year-olds, 6–8-year-olds) participated in a picture identification task and a picture naming task in both languages. Results revealed age-related growth in English, but not Mandarin vocabulary. Composite vocabulary was larger than either single-language vocabulary in the younger children but was similar to English vocabulary in the older children. Furthermore, children showed a larger receptive–expressive modality difference in their weaker language (Mandarin) than in their stronger language (English). These patterns indicated rapid growth in English vocabulary along with early stabilization of Mandarin vocabulary despite considerable Mandarin input in the home setting.

Ellen Bialystok (2014) examined metalinguistic awareness in children who became bilingual in an immersion education program. The purpose was to determine at what point in emerging bilingualism the previously reported metalinguistic advantages appear and what types of metalinguistic tasks reveal these developmental differences. Participants were 124 children in second and fifth grades who were enrolled in either a French immersion or a regular English program. All children were from monolingual English-speaking homes and attended local public schools in middle socioeconomic neighbourhoods. Measures included morphological awareness, syntactic awareness, and verbal fluency, with all testing in English. These tasks differed in their need for executive control, a cognitive ability that is enhanced in bilingual children. Overall, the metalinguistic advantages reported in earlier research emerged gradually, with advantages for tasks requiring more executive control (grammaticality Judgment) appearing later and some tasks improving but not exceeding performance of monolinguals (verbal fluency) even by fifth grade. These findings demonstrated the gradual emergence of changes in metalinguistic concepts associated with bilingualism over a period of about 5 years. Performance on English-language proficiency tasks was

maintained by French immersion children throughout in spite of schooling being conducted in French.

So, from above studies it has been concluded that though the development pattern is similar in both monolingual as well as bilingual. But bilingual acquires the language earlier than monolinguals, these is all because of the simultaneous exposer of language, proficiency and age at which they were acquiring. Certain other result concluded that bilinguals have excellent reading performance in both languages than monolinguals. While in cross-linguistic transfer in verbal compounds of preschool bilingual children it was found that bilingual's children would show an advantage over monolingual children in producing and understanding novel VO compound on the basis of influence from their grammatical English VO compounds.

C. Studies related to milestones of language acquisition in bilinguals

Bilingual children typically are learning to understand and say words and sentences in two languages. These language abilities do not necessarily develop in each language simultaneously (De Houwer, 2009a). Uneven development across languages is common, with one language developing faster for some or all aspects of language use than the other. As far as speaking is concerned, development may be so uneven, that children speak just a single language. The main reason for uneven development probably lies in the quantity of bilingual children's language input, which is often quite different for each language. The language that children hear most will often be the language in which they are more advanced (De Houwer, 2009). The fact that it is normal for bilingual children to develop each language at different speeds implies that they can reach specific milestones in each language at different times. Uneven development also allows for the possibility that some milestones are only reached for a single language.

For bilingual children, then, one should not expect milestones to be reached in each of two languages separately, nor should one expect milestones to be reached in two languages simultaneously. Of course, there are many bilingual children who do reach

certain milestones in both languages, and who reach these at the same time for both languages. As is also the case for monolingual children, however, reaching a particular milestone in just a single language is what counts.

Once bilingual children have reached a milestone in a particular language, and have done so around the expected age, they are showing the level of linguistic development associated with that milestone. The fact that they have not reached that same milestone in the other language will then be due to other factors, such as lesser opportunity to hear that language. It is only when bilingual children have not reached an expected milestone for either of their languages that one has to start worrying.

Bilingual children who fail to reach expected milestones in either of their languages may have hearing difficulties or another kind of physiologically and/or neurologically determined condition that is known to delay language development. It is also possible that bilingual children with a language delay are deprived of the right kind of language input in both their languages. For identifying bilingual children's milestones involving the size of their lexicon or word repertoire their total word knowledge must be taken into account, as was done for monolingual children. Bilingual children's total word knowledge combines the words they know in both languages.

Main language milestones for bilingual children

According to De Houwer (2007) important milestones for bilingual children are as follows:

Bilingual children learn to understand words and phrases in two languages rather than just one. Without comprehension in two languages, children cannot qualify as bilingual.

Once bilingual children start to build sentences consisting of three or four words, most of their sentences in just a single language follow the grammatical rules of that language (including word order rules). Children mostly use grammatical structures of

one of their languages in sentences with words from that same language. They typically develop two separate grammatical systems (De Houwer, 1990; Meisel, 1989). So far, all young bilingual children studied have been found to show evidence of two basically separate grammatical systems (De Houwer, 2009b). Bilingual children who appear to use a fused grammatical system are thus developing outside the bilingual norm.

According to De Houwer(2007) there are different stages of bilinguals that are also important for monolinguals such as-Speech and language professionals recognize the fundamental importance of the following five main universal milestones. These are, in developmental (chronological) order:

(1) The use of babbling (saying apparently meaningless strings of repeated syllables, like bababa),
(2) Showing signs of language comprehension,
(3) The production of children's first words,
(4) Saying several different words and
(5) The production of children's first short sentences. For milestone (4), the 50-word mark is considered particularly important. Parents will mainly find milestones (3) and (5) Important. The order of these milestones holds for bilingual and monolingual children alike.

The review of the studies has been done that is as follows: According to De Houwer(2007)-ages at which bilingual children reach main language milestones are as follows:

(1) Babbling: Bilingual children start to babble in what sounds like nonsense words when they are about 6 to 7 months of age . Although some elements of babbling may sound like one language and others like another, babbling is not clearly linked to a particular language (Pearson et al., 2010).

(2) Showing signs of language comprehension : Bilingual children start to show signs of understanding words from the age of four months onwards (De Houwer, 2009b). Typically, bilingual children will first learn to respond to their own name.

By the time they are 13 months of age, bilingual children on average understand as many as 250 different words in total, that is, in both their languages combined.

(3) The production of children's first words : Bilingual children say their first words between the ages of 8 and 15 months (De Houwer, 2009b). The majority of the bilingual children that have been studied so far said at least one word in at least one language by the time they were 12 or 13 months of age . Bilingual children may start out saying words only in a single language, or in both.

(4) Saying a total of 50 different words : There are no studies of bilingual children specifically focusing on when they reach the 50-word mark. A Japanese-English child said just over 50 different words at age 20 months (Nakamura & Quay, 2012). However, the average total number of words spoken by bilingual children for both their languages combined can be as high as 254 at that same age, found a somewhat lower number of just over 200 words at age 22 months. This difference emphasizes the variability there is among bilingual children (David & Li, 2003). The implication of these findings is that most bilingual children reach the 50-word mark before the age of 20 months.

(5) The production of children's first short sentences : Bilingual children start to combine words and build short sentences between the ages of 15 and 23 months (De Houwer, 2009b). Most bilingual children studied so far were combining words by age two (Hoff et al, 2012; Marchman, Martínez-Sussmann, & Dale, 2004; Patterson, 1998).Early word combinations may consist of two words from the same language, or one word from each language. Children may combine words in each of their two languages from the very beginning, or just in one.

Studies emphasizes the milestones that are only important for bilingual children (De Houwer, 2007)-

(6) Understanding words in two languages : Word comprehension is an understudied area in bilingual studies. The few available data indicate that by 13 months, bilingual children understand words in each of their languages.

(7) Showing evidence of separate grammatical systems: Children start to use clear grammatical markers in their speech only once they start to use sentences with three or four words in them. As for monolingual children, there is great variation between bilingual children when they start to do this, but by the time children are about three years of age, they should typically say sentences with at least four words. We can consider this age as a normative milestone for bilingual children's use of different grammatical systems, although many bilingual children show evidence of separate grammatical systems already around age two and earlier.

Clark (2009) compares milestones of language acquisition in bilinguals and monolinguals the answer to this question can be very brief: monolingual children reach the five main "universal" language milestones (1-5) within the same age ranges as bilingual children (Clark, 2009). The single difference between monolingual and bilingual children is that on average, bilingual children at age 13 months reach an overall level of word comprehension that it takes most monolingual children about five more months to reach. That is, the total number of words 13-month-old bilingual children understand equals the average number expected for monolingual children at age 18 months.

Poulin-Dubois & Goodz (2001) examined language specific differences in the babbling of French-English bilinguals of the same age when they examined segmental features (i.e., differences in place and manner of articulation). When BFL children start producing words, they sometimes show signs of prosodic differentiation from quite early in development. For example, Paradis (2001) found that 2-year old French-English bilinguals were more likely to omit syllables from novel four syllable words in each language based on the typical stress patterns of that language. Whether and/or when BFL children have two language-specific segmental phonological repertoires is not clear. In some studies, bilingual children's segmental phonology has been reported to be similar to same age monolingual children throughout the preschool years with respect to phonetic substitutions (e.g., substituting [l] for [r] in the Spanish word "cruz"; from Barlow, 2002; Bell, Müller, & Munro, 2001; Holm & Dodd, 1999), voice onset times

(Johnson & Wilson, 2002; Kehoe, Lleó, & Rakow, 2004), and consonant harmony and syllable reduplication (Brulard & Carr, 2003; Johnson & Lancaster, 1998; Schnitzer & Krasinski, 1996).

Other studies have pointed to delays or differences relative to monolingual children on some of the very same measures (Deuchar & Clark, 1996; Johnson & Wilson, 2002; Schnitzer & Krasinski, 1994). The variability observed in the phonological development of BFL learners could be linked to multiple influences, some that are the same as those that influence monolingual phonological development and some that are particular to BFLA. Those that are the same included general developmental factors that are maturationally-based (e.g., maturation of articulators that are linked to the onset of canonical babbling) and individual differences (compare Schnitzer & Krasinski, 1994 and Schnitzer & Krasinski, 1996; see also Kehoe et al., 2004). Those that are particular to BFLA include unequal or limited exposure to or practice with each language (e.g., Arnberg, 1981; Bell, Müller, & Munro, 2001; Paradis, 2001), asynchronous development that reflects normal language-specific differences in the pattern of emergence of phonological abilities (Matthews & Yip, 2003, have proposed this for morpho-syntax), cross-linguistic transfer (Holm & Dodd, 1999; Paradis, 2001), and idiosyncracies in the distributional and/or qualitative properties of bilingual speech input (Sebastián-Gallés & Bosch, in press; Polka, et al.)

According to Laura A, Marina K., Bronna G. Levy, K.G., Karine T. and Vittoria (2001). Bilingual signed and spoken language acquisition from birth: implications for the mechanisms underlying early bilingual language acquisition. Divergent hypotheses exist concerning the types of knowledge underlying early bilingualism, with some portraying a troubled course marred by language delays and confusion, and others portraying one that is largely unremarkable. We studied the extraordinary case of bilingual acquisition across two modalities to examine these hypotheses. Three children acquiring Langues des Signes Que!be!coise and French, and three children acquiring French and English (ages at onset approximately1;0, 2;6 and 3;6 per group) were

videotaped regularly over one year while we empirically manipulated novel and familiar speakers of each child's two languages.

The results revealed that both groups achieved their early linguistic milestones in each of their languages at the same time (and similarly to monolinguals), produced a substantial number of semantically corresponding words in each of their two languages from their very first words or signs (translation equivalents), and demonstrated sensitivity to the interlocutor's language by altering their language choices. Children did mix their languages to varying degrees, and some persisted in using a language that was not the primary language of the addressee, but the propensity to do both was directly related to their parents' mixing rates, in combination with their own developing language preference. The signing-speaking bilinguals did exploit the modality possibilities, and they did simultaneously mix their signs and speech, but in semantically principled and highly constrained ways. It is concluded that the capacity to differentiate between two languages is well in place prior to first words, and it is hypothesized that this capacity may resulted from biological mechanisms that permit the discovery of early phonological representations.

The role of age of onset and input in early child bilingualism in Greek and Dutch Sharon U. F. Leonie C. Aafke hulk A. Sorace I. T.(2011) These study focused on the acquisition of grammatical gender inGreek andDutch by bilingual children whose other language is English. Although grammatical gender languages share the property of noun classification in terms of grammatical gender, there are important differences between the languages under investigation here in terms of both the morphological cues for gender marking available to the child and the developmental path followed by monolingual children. Dutch offers limited input cues for grammatical gender, but Greek shows consistent and regular patterns of morphological gender marking on all members of the nominal paradigm.

This difference is associated with the precocious pattern of gender acquisition in Greek and the attested delay in monolingual Dutch development. We explore the

development of gender in Dutch and Greek with the aim of disentangling input from age of onset effects in bilingual children who vary in the age of first exposure to Dutch or Greek. Our findings suggest that although bilingual Greek children encounter fewer difficulties in gender acquisition compared to bilingual Dutch children, amount of input constitutes a predictive factor for the pattern attested in both cases.

Age of onset effects could be partly responsible for differences between simultaneous and successive bilinguals in Greek, but this is clearly not the case for Dutch. Our findings are also addressed from the more general perspective of the status of "early" and "late" phenomena in monolingual acquisition and the advantages of investigating these from the bilingual perspective. The data analyzed suggested that a complex interplay between the factors of input quantity and age of onset. This may hold not only for how these two factors interact in the linguistic development of bilingual children, thereby suggesting that an approach such as Meisel (2009) was too global, but also for how researchers go about comparing the linguistic development of different types of bilingual children. Furthermore, investigated the acquisition of the same target language property by the same types of bilingual children in two different target languages has allowed us to pinpoint the crucial aspects of that property and examined more thoroughly how it relates to the bilingual children's background variables.

D. Studies related to models of bilingual language acquisition

There are certain models of second language acquisition or learning and suitable bilingual. For example, The Acculturation Model of SL learning or The Accommodation Theory of SLA. There are further two models described below: Lambert's Model and Gardner's Model. They concentrate on the explanation of the development of language acquisition in certain stages.

i)Lambert's Model of SL learning

The model developed by Lambert combines the individual as well as societal elements of bilingualism. At the beginning of the model there are attitudes and aptitude of an individual. They are considered for two major and separate influences on

becoming bilingual. Both aptitude and attitudes are regarded as an important factor in second language learning. The next part of the model is motivation. It is defined as the readiness to engage in language learning or language activity. These factors support another part called a person's bilingual proficiency. It impacts upon a person's self-concept.

Throughout this model Lambert deals with the self-esteem and the ego. He claims becoming or being bilingual has effects on these two. Lambert points on the term enculturation that is connected with involving different culture and then the possibility of different aspirations, world views and beliefs. (Baker, Jones 1998: 642)

Last two parts of Lambert's model are additive or subtractive bilingualism. They are the outcomes of the model. Additive bilingualism occurs in the case when being bilingual has no pressure to replace the first language. On the other hand, when the second language is acquired with pressure to replace the first language then a subtractive bilingualism may occur. This division may have been included in the part dealing with the division of bilingualism (2.1.1.) But as it deals with this model it is not there. (Baker, Jones 1998: 642-643)

ii) Gardner's Socio-Educational Model of SLA

This model developed from Lambert's model. At the beginning Gardner explains and extends the terms ability and aptitude. He connects them with intelligence of a child learning a language at school. In the part devoted to the terms attitudes and motivation he divides the reasons for learning a second language into two groups: *A wish to identify or join another language group* and *Learning a language for useful purposes*.

Gardner claims that motivation is an important factor in second language acquisition. It affects the speed and final proficiency of the second language. Attitudes to the second language and motivation are dependent on one another as they are parts of the learning process considering the acquisition of a second language. Gardner's

research is divided into four stages. The model starts with the social and cultural background. It shows that children may be influenced by the beliefs and culture of the community in which they are placed. The second stage is defined by Gardner as individual differences. The four sections contained in this stage are intelligence, language aptitude, motivation and situational anxiety. These parts can affect the outcomes of language learning as there are various degrees of intelligence as well as talent for language learning. Stage three is focused on language learning. There are two possible environments where language is acquired. The first is informal environment, for example a classroom, classroom materials and resources. The other context includes a formal approach to language learning: a language laboratory, drill and practice, translations and grammar exercises. In the final stage there are two outcomes of SLA: bilingual proficiency and non-linguistic outcomes. There is the dotted arrow in the picture leading from stage 4 to stage 2. This is to remind there are attitudes mentioned in both stages. That means this model is cyclical. (Baker, Jones 1998: 645-646) .

This model is limited by certain comments. For example, it is suggested that a new language can be learnt for intellectual stimulation, for a personal challenge, to fulfil schools requirements, travel interests or for cultural curiosity. There are changes in motivation, in reasons for second language study, and an evolution of interests in the learning process. Although the strategies of students in language learning and strategies of teachers in language teaching vary and are complex, they cannot be included in a simple model. (Baker, Jones 1998: 646)

iii) Computational Models:

Bilingual Interactive Activation (BIA)model of word form
Bilingual Single Representation network (BSRN) Model
Distributed Feature Model of semantic representation

BSRN and SOMBIP are two distributed developmental models (Thomas 1997; French 1998; Li, and Farkaš, 2002) that better explain why and how some L2 learners are able to achieve native-like speech regardless of when they began a L2 acquisition.

a)Bilingual single representation network (BSRN)

The first stage of these distributed models is addressed by Dijkstra and Van Heuven (2002) and is presently at the forefront of AGI (artificial general intelligence). This stage consists of forming relevant cognitive domains or tables (corpora, in linguistic terms) for each of the language elements and includes:

a) phonological representations of spoken words
b) orthographic representations of written words
c) representations of word meanings,

4) And representations of the identity of words appearing in the sequential strings that make up sentences.

The second stage is the model's training stage, the stage for attaching meanings and attributes to the stored data through interaction and feedback or random-access programming, whichever may apply.

a) Bilingual Interactive Activation (BIA) model:

An integrated lexicon is the basic assumption of this model and it has been very successful in extending single language effects to bilinguals. When a string of letters is presented to the BIA model, this visual input affects particular features at each letter position, which subsequently excite letters that contain these features and at the same time inhibit letters for which the features are absent. The activated letters next excite words in both languages for which the activated letter occurs at the position in question, while all other words are inhibited. At the word level, all words inhibit each other, irrespective of the language to which they belong. Activated word nodes from the same language send activation on to the corresponding language node, while activated language nodes send inhibitory feedback to all word nodes in the other language. The

main function of the language nodes is to collect activation from words in the language they represent and inhibit active words of the other language. The activation of the language nodes reflects the amount of activity in each lexicon.

c) Bilingual Interactive Activation Plus (BIA+)

An extended version of BIA known as BIA+ has been proposed which speaks of an automatic **('bottom- up')** process within the bilingual lexico-semantic system, essentially driven by stimulus input involving modification of the level of activation in the bilingual lexico-semantic system and an intentional **('top-down')** process that alters how the individual responds to signals coming from the bilingual lexico-semantic system, but does not modify activation levels within the system itself.

The BIA+ is one of many models that was defined based on data from psycholinguistic or behavioural studies which investigate how the languages of bilinguals are manipulated during listening, reading and speaking each of them.

Word identification subsystem

Integrated lexicon: The integrated lexicon assumption describes the interactivity of the visual representation of word or word parts and orthography, the phonologicor auditory component of language processing, and the semantic or significance and meaning representations of words. This theory was tested with orthographic neighbors, words of the same length that differ by one letter only (e.g. ball and fall). The number of target and non-target language neighbors influenced target word processing in both the primary language (L1) and the secondary language (L2). This does not imply, however, that there may not be features unique to one language (i.e. the use of different alphabets) or that, at the semantic level, there are no shared feature.

Nonselective/Parallel access: Parallel access assumes that language is nonselective and that both potential word choices are activated in the bilingual brain when exposed to the same stimulus. For example, test subjects reading in their second language have been found to unconsciously translate to their primary language.

Temporal delay of L2: The temporal delay assumption is based on the principle of resting potential activation which reflects the frequency of word use by the bilingual such that high frequency words correlate to high resting level activation potentials, and words used with little frequency correlate to low resting level activation potentials. A high resting potential is one that is less negative or closer to zero, the point of activation, and words also reflects the proficiency level of bilinguals and their frequency of usage of the two languages. When a bilingual's language proficiency is lower in L2 than L1, the activation of L2 lexical representations will be further delayed as more extensive or higher-level brain activation is necessary for language control. Both low and high proficiency bilinguals have parallel activation of the word representations; however the less proficient language, L2, becomes active more slowly contributing to the temporal delay assumption.

Task/decision subsystem: It is the subsystem of the BIA+ model determines which actions must be executed for the task at hand based on the relevant information that becomes available after word identification processing. This subsystem involves many of the executive processes including monitoring and control associated with the prefrontal cortex.

Alterribe (2001) that language shift from L1 and L2 of same lexical categories is more accessibility in L2 because of the continuous exposure and usage .According to the inhibitory control model of Green (1986,1988),dominant language(L2),Hence,excitation takes longer time to reactive the L1.Revised Hierarchical Model (Kroll and Stewart,1994),states that forward translation (L1-L2) takes more time than backward translation (L1-L2),which depends on the proficiency in L2.More proficient group performed equally in both translations ,but less proficient group showed asymmetry in translation(Kroll ,Michael, Tokowics, & Dufour,2002)

Fernandes-Boëchat´s Multilingual Role Model based on her Cognitive Chain-Reaction Theory in Foreign Language Learning, and discusses its relation to other studies in TLA.They use the notion of L3 here for the language that is currently being

acquired, or learned, and L2 for any other language(s) that the speaker has acquired, or learned, after his/her L1. Studies in TLA are mainly based on the fact that L2 and L3 differ substantially, and are highly motivated by these differences as well. There is a growing awareness that TLA is not a mere extension of Second Language Acquisition (SLA), and researchers acknowledge that trilingualism demands models of its own, rather than being involved in the scope of those developed in the realm of Second Language Acquisition (Grosjean, 2001;Williams & Hammarberg, 1998).

Levelt´s (1989) monolingual Model of Language Production explains that speech production is a staged process, in three main components, namely, the conceptualizer, the formulator, and the articulator. It goes from the conceptual/syntactic level to the phonological/articulatory domain, at the beginning of articulation and Green´s Inhibitory Control Model, explainig that in the human brain, "the subsystems mediating the comprehension and production of language are separable and that different functional systems underlie different languages" .Both these models both influencing De Bot´s (2000) adaptation into a bilingual production model is the first to postulate a bilingual language production model. Grosjean´s representation of the language mode continuum follows, as a significant contribution for studies in bilingual speech processing.

Myers-scotton's (1993) Matrix language frame model (MLF) proposed a comprehensive hypothesis about code mixing and code switching. Unlike the proposals considered until this point, this model is grounded in research on linguistic performance research on sentence production. This is an alternative model to predict acceptable intrasentencial code switching based on the linguistic function served by each language in a bilingual interaction.this model identifies grammatical relationships and constraints related to the domain and subordinate role of each language,rather than specific rule. The seven constrains given in MLF model are Matrix language Islands(ML island),Matrix Language+Embedded Language(ML+EL),Embedded Language Islands(EL islands),Barrowed forms, Matrix Language Shift(ML shift),Revisions, Embedded Language insertions(ELin) .

Michael S. C. Thomas (2002) explained about the BIA model of bilingual word recognition in the light of recent empirical evidence. After pointing out problems and omissions, a new model, called the BIA+, is proposed. Structurally, this new model extends the old one by adding phonological and semantic lexical representations to the available orthographic ones, and assigns a different role to the so-called language nodes. Furthermore, it makes a distinction between the effects of non-linguistic context (such as instruction and stimulus list composition) and linguistic context (such as the semantic and syntactic effects of sentence context); based on a distinction between the word identification system itself and a task/ decision system that regulates control, And finally the generalizability of the BIA+ model to different tasks and modalities was discussed.

Krupa and Shyamala (2002) studied Code Switching in persons with aphasia who were age, gender matched normal Malayalam – English Bilinguals. Analysis was done using Matrix Language Frame Model. All the Code switching samples were evaluated using seven constituents like Matrix language islands (MLI), ML+EL Constituents, embedded language islands (ELI), borrowed forms, ML shifts, EL insertions and revisions. Results were established for each constituent separately

- ML islands were noticed in the native language in all the normal participants and 3 of the 6 persons with aphasia.
- No EL insertions were noticed in all normal participants and 1 person with aphasia.
- EL islands were formed by 2 normal participants and 1 person with aphasia in monolingual Malayalam situation and 3 persons with aphasia in Monolingual English situation.
- ML+EL constituents were formed by 4 of the normal participants and 5 persons with aphasia.
- Revisions and ML shifts were apparent in the language of all subjects.2 of the normal participants and 4 of the aphasics.
- It was found that persons with aphasia showed repeated construction of EL, insertions, and ML shifts. Thus the results disagree with the idea that code switching remains unaltered by person with aphasia. Hence it supports the belief that language mixing is pathological. In normal Kannada-English bilingual participants, code switching is

common and there are plenty of borrowed English words in list of Kannada speakers (Bhat & Chengappa 2003).

Bhat and Chengappa (2004) examined code mixing and code switching in Bilingual persons with aphasia. Results as follows

- Matrix language + embedded language (ML+EL) island more often by the persons with aphasia all the circumstances. But in monolingual English condition, this constituent was significantly reduced in few aphasics and normal subjects.
- Embedded Language Islands (EL Islands) were significantly better in persons with aphasia in monolingual condition as compared to control group.
- Revisions were apparently distinct in 2 set of participants with only bilingual persons with aphasics exhibited this constituent.
- Borrowed forms were noted in persons with aphasia frequently, but the distinction across 2 set of participants was not significant. Morphological mixing was used commonly by normal Kannada-English bilinguals. Aphasics used lexical semantic level mixing more oftenly and this difference was significant in monolingual Kannada context.

Kumar (2006) did a study on code mixing and code switching among Hindi-English bilingual persons with aphasia. He reported that similarities and differences in verbal interactions of the code switching and mixing in neurologically normal and aphasic bilingual speakers.

- ML Island was noticed in the native language for all the participants.
- In ELI, real variety of code mixing were more in persons with aphasia compare to normal's.
- EL insertions are more common in persons with aphasia.
- ML+EL constituents were demonstrated more by persons with aphasia both in monolingual Hindi and monolingual English context and it was similar in case of bilingual contexts.

To conclude, Individual variation in the rate and form of constituents produced and the condition in which they were formed were significantly apparent in the code switching pattern of bilingual persons with aphasia.

Monaghan .P. and Ellis. A. W.(2006), done a study on modelling reading development: They examined that natural reading development gradually builds up to the adult vocabulary over a period of years .This has an effect on lexical processing:early acquired words.The author presented a connectionist model of reading ,learning to map orthography onto phonology to stimulate this natural reading development.

The model learned early words more robustly than late words, and also showed interactions between age of acquisition and spelling -sound consistently that have been reported for skilled adult readers.The author demonstrated the age of acquisition effects are consequences of incremental exposure to words in concert with changes in plasticity as learning proceeds.

According to Volterra and Taeschner's (2007) studied that whether the two languages of bilingual children developed autonomously or interdependently (Paradis & Genesee, 1996). Interdependent development would result from systemic influence of one language on the development of the other, resulting in patterns or rates of development that differ from what would be expected in monolingual children.

These theoretical and practical apprehensions have resulted in research that compared the development of bilingual children to that of monolingual children acquiring the same languages. And it was found that it may be an incorrect frame of reference because it stigmatizes bilingual patterns of development and risks attributing differences that bilingual children exhibit to deficits in children's capacity to acquire two languages at the same time (Cook, 2002). Alternatively, the linguistic competencies of bilingual children, like those of bilingual adults, should be examined and evaluated on their own merit (Grosjean, 1997).

Norbert Francis (1999) investigated the development of literacy, bilingualism, and metalinguistic awareness. The particular context of the study (high levels of bilingualism among school-age children) and the particular language contact situation (an indigenous language) offer a vantage point on the interaction between language learning and metalinguistic awareness and take into account the sociolinguistic imbalances that characterize bilingual communities of this type. The subjects who participated in the study were speakers of Spanish and Nahuatl from Central Mexico. Assessments of metalinguistic awareness related to different aspects of the children's consciousness of the languages they spoke or understood were compared to a series of assessments of reading comprehension, writing, and oral narrative in both languages. Findings suggested directions for further research along the following lines: metalinguistic awareness was related to different aspects of literacy development in different ways, the key variables being the degree of decontextualization and expressive versus receptive language tasks.

Cross-linguistic transfer can be explained by structural ambiguity in a bilingual child's two languages (Dopke, 1998; Hulkand Muller, 2000)-examined the effect of morphological ambiguity in transfer of verbal compounds in English and French. English-speaking children go through a stage of producing ungrammatical verb-object compounds in their acquisition of object-verb compounds. In French, verb-object compounds are productive. If structural ambiguity predicts when transfer occurs, French-English bilingual children should use more ungrammatical verb-object compounds than English-speaking children and more grammatical verb-object compounds than French-speaking children. This study focused on 36 French-English bilingual children's production and comprehension of novel verbal compounds in both languages. The predictions for production but not for comprehension. It was concluded that cross-linguistic transfer is a language production phenomenon and that structural ambiguity can predict when morphological transfer can occur.

Jonas Granfeldt (2000) studied the acquisition of Functional Categories in the French Determiner Phrase. The development of determiners and pre nominal adjectives

in three bilingual Swedish and French children was compared with that of four Swedish second language learners of French. It was argued that acquisition was crucially different in these two cases. The bilingual children initially have restrictions on phrase structure, resulting at one stage in a complementary distribution of determiners and adjectives. These results supported a structure building view of L1 acquisition. For L2 acquisition of the same structure, there was no evidence for an initially reduced phrase structure. This finding was explained in terms of a transfer effect. A preliminary comparison with the acquisition of finiteness suggests that, whereas there was some correlation over time in the L1B subjects, no such correlation was found in the L2 learners.

Michelle M.etal. (2008) showed that bilingual children excel in tasks requiring inhibitory control to ignore a misleading perceptual cue. And it extends this finding by identifying the degree and type of inhibitory control for which bilingual children demonstrate this advantage. Study 1 replicated the earlier research by showing that bilingual children perform the Simon task more rapidly than monolinguals, but only on conditions in which the demands for inhibitory control were high. The next two studies compared performance on tasks that required inhibition of attention to a specific cue, like the Simon task, and inhibition of a habitual response, like the day–night Stroop task. In both studies, bilingual children maintained their advantage on tasks that require control of attention but showed no advantage on tasks that required inhibition of response. These results confine the bilingual advantage found previously to complex tasks requiring control over attention to competing cues (interference suppression) and not to tasks requiring control over competing responses (response inhibition).

Mohan and Swapna (2010) conducted a speeded picture naming task with semantic blocking in two language conditions in a Kannada-English bilingual patient with aphasia. The study revealed that frequency of preservations was different for the two languages in their patient, less in L1 compared to L2.This was supported on the basis of Revised Hierarchical Model(Kroll & Stewart,1994),proposed for bilingual language processing , where there are two different modules for L1 and L2 with bidirectional

interactions .They also drew support from the Activation threshold hypothesis (Paradis,1985,1993) based on which low activation thresholds may yield faster and easier assess than higher thresholds, especially under brain damage .Recurrent perseverations were found more than continuous perseveration. This was in agreement with the hypothesis that posterior aphasics have more recurrent perseverations, termed translation equivalent recurrent perseveration that was found .Here, an instances of recurrent perseveration was noted wherein the subject named the target picture with the translation equivalent of a previous word. The authors concluded that this could be because of the phenomenon of spontaneous translation reported in bilingual aphasics (Perceman, 1984).

Marc.B. etal (2010) investigated that Revised Hierarchical Model (RHM) of bilingual language processing dominates current thinking on bilingual language processing. Recently, basic tenets of the model had been called into question. First, there is little evidence for separate lexicons. Second, there is little evidence for language selective access. Third, the inclusion of excitatory connections between translation equivalents at the lexical level is likely to impede word recognition. Fourth, the connections between L2 words and their meanings are stronger than proposed in RHM. And finally, there is good evidence to make a distinction between language-dependent and language-independent semantic features. It is argued that the Revised Hierarchical Model cannot easily be adapted to incorporate these challenges and that a more fruitful way forward is to start from existing computational models of monolingual language processing and see how they can be adapted for bilingual input and output, as had been done in the Bilingual Interactive Activation model.

A study was carried out in the Indian context by Rajasudhakar and Shyamala (2008) in bilingual adults and elderly. They studied two groups of subjects consisting of forty young and old individuals .Each group had 20 monolinguals and 20 bilinguals on whom Cognitive Linguistic Assessment Protocol (CLAP) – adults developed by Kamath and Prema (2003) in Kannada was used. Assessment of the cognitive –linguistic abilities of young as well as older monolinguals and bilinguals was done. The result indicated

that bilingual adults and elderly performed better on all the domains of CLAP indicating a cognitive –linguistic advantage.

Cognitive linguistic abilities in children who were bilinguals were investigated by Stephen, Sindhupriya , Mathur, & Swapna , (2010) .The participants were divided into 12 bilinguals and 12 monolingual children in the age range of 7-8 years. The Cognitive Linguistic Assessment Protocol for Children (CLAP-C) (Anuroopa & Shyamala,2008) for children was administered on the selected participants. Attention /discrimination, memory and problem solving were the three domains assessed using CLAP.Bilingual children outperformed monolinguals in all the three sections of CLAP, in the study support the notion that bilingualism favours cognitive development.

Sangeetha and Swapna (2011) tried to examine the interaction between conitive and linguistic mechanisms in simultaneous and sequential bilinguals using Cognitive-Linguistic Assessment protocol for children (CLAP-C) .Ten Kannada-English simultaneous and sequential bilingual children in the age range of 7-8 years participated in the study.The results showed superior performance on cognitive task by simultaneous bilingual advantage on the cognitive processing .This study attributed the performance of simultaneous population to the age of acquisition and the extent to which the individual is bilingual.

Sujin Y. (2011) investigated whether early especially efficient utilization of executive functioning in young bilinguals would transcend potential cultural benefits. To dissociate potential cultural effects from bilingualism, four-year-old U.S. Korean–English bilingual children were compared to three monolingual groups – English and Korean monolinguals in the U.S.A. and another Korean monolingual group, in Korea. Overall, bilinguals were most accurate and fastest among all groups. The bilingual advantage was stronger than that of culture in the speed of attention processing, inverse processing efficiency independent of possible speed-accuracy trade-offs, and the network of executive control for conflict resolution. A culture advantage favoured

Korean monolinguals from Korea was found in accuracy but at the cost of longer response times.

Jeanine T.D. (1998) examined to foster discussion of the means by which bilinguals control their two language systems. It proposes an inhibitory control (IC) model that embodies the principle that there are multiple levels of control. In the model a language task schema (modulated by a higher level of control) ``reactively" inhibits potential competitors for production at the lemma level by virtue of their language tags. The IC model is used to expand the explanation of the effect of category blocking in translation proposed by Kroll and Stewart (1994), and predictions of the model are tested against other data. Its relationship to other proposals and models is considered and future directions proposed.

Judith F. etal (2010) suggested that it is time to abandon the Revised Hierarchical Model of Kroll and Stewart, 1994 in favour of connectionist models such as BIA+ (Dijkstra and Van Heaven, 2002); that more accurately account for the recent evidence on non-selective access in bilingual word recognition. In this brief response, they first reviewed the history of the Revised Hierarchical Model (RHM), consider the set of issues that it was proposed to address and then evaluated the evidence that supports and fails to support the initial claims of the model. Although fifteen years of new research findings require a number of revisions to the RHM, we argue that the central issues, to which the model was addressed, the way in which new lexical forms are mapped to meaning and the consequence of language learning history for lexical processing, cannot be accounted for solely within models of word recognition.

Viorica. M. etal (2003) conducted an experiment on the two eye-tracking systems while spoken language processing in Russian-English bilinguals. The proportion of looks to objects whose names were phonologically similar to the name of a target object in either the same language (within-language competition), the other language (between-language competition), or both languages at the same time (simultaneous competition) was compared to the proportion of looks in a control condition in which no objects

overlapped phonologically with the target. Results support previous findings of parallel activation of lexical items within and between languages, but suggest that the magnitude of the between-language competition effect may vary across first and second languages and may be mediated by a number of factors such as stimuli, language background, and language mode.

Maud J. and Robert M. French (2002) investigated that with an evaluation of the BIA model of bilingual word recognition in the light of recent empirical evidence. After pointing out problems and omissions, a new model, called the BIA+, is proposed. Structurally, this new model extended the old one by adding phonological and semantic lexical representations to the available orthographic ones, and assigns a different role to the so-called language nodes. Furthermore, it makes a distinction between the effects of non-linguistic context (such as instruction and stimulus list composition) and linguistic context (such as the semantic and syntactic effects of sentence context); based on a distinction between the word identification system itself and a task/ decision system that regulates control. At the end of the paper, the generalizability of the BIA+ model to different tasks and modalities was discussed.

Conclusion made by the studies on models of bilinguals shows that though the language processing is similar in second language learners as first language learners .one study with highly proficient bilinguals (all late learners) found no significant difference between L1 and L2 ,two studies with moderately to highly proficient bilinguals found more activity in the left middle temporal gyrus for decisions on L1 words , and three studies with less proficient bilinguals reported more activity for L2 words in several left frontal and parietal areas. All these areas area are known to be involved in semantic decisions.De Groot, 1997 concluded that semantic route is more heavily involved in translating words into L2 from L1 at least in single word contexts.

Bilingual Awareness

Young children learn a second language easily. The main reason is that the world of a little child is simple and concrete and also the needs of a child are simple. He only does day-to-day activities, such as eating, singing, telling stories, shopping and playing with toys. He does not consider he is learning a language through these activities. In the case of bilingual children, it is somewhat complicated. There can be more possibilities, for example a child speaks one language with his parents and the second with his friends. He can learn the second language via watching television, reading various signs or notices in a town where he lives, via listening to the radio or via talking to his foreign friends. (Baker, Jones 1998: 71) .Concerning teenagers or adults learning a second language at higher age, they are shifting their thoughts and ideas from their first language into the second language. Consequently it is quite confusing as the structure and system of each language is different. (Baker, Jones 1998: 72-73)

In one observation it was shown that from about three years old, children do use their two or three languages in appropriate and consistent ways. However, certain specialists disagree it is possible for children to be aware that he is using two languages. (Harding, Riley 1999: 55)

This implies that every child can have different attitude in respect to learning and using two languages.

The Effects of Bilingualism on a Child

Certain researchers and educators maintain that bilingualism has negative effects on language development or intelligence, whereas the others claim it has positive effects. That means the child is not only ahead in school but has greater cognitive flexibility and creativity. (Grosjean 1982: 220)

As far as the level of language development is concerned, there were many problems with a bilingual child found; for example, restricted vocabularies, unusual word order, hesitations and limited grammar. Certain researchers found bilingualism to be a handicap, concerning children's intelligence.

On the other hand, in some researchers' opinion, there are much more positive effects and they considered being a bilingual as a great asset. In their opinion, a bilingual child is better at learning new languages, he has a better awareness of language differences, and he is more motivated at school. A study by Peal and Lambert (1962) proved that bilingual children are more intelligent, cleverer and they have greater creativity in comparison with monolingual children. (Grosjean 1982: 221-222).

Advantages of Bilingualism

As a comparison of advantages and disadvantages proposed by certain author's shows, there are more advantages than disadvantages. Communication between children with his parents is a good example. If the mother tongue of the child's parents is not the same, it is an advantage for the child: he can speak both languages and, therefore, he receives a close relationship with the parents. A community relationship involves communication with many people (friends, teachers or neighbours) and this type of communication makes bridges to other people and other nationalities.

Bilingual people have certain advantages in thinking as they know two or more words for each object. According to the research, bilinguals are more patient than monolinguals because of their language sensitivity. (Baker, Jones 1998: 6, 642) Moreover, bilingual people are familiar with two cultures; involve different features such as behaviour, habits and traditions. For that reason they can get better jobs and can communicate on a higher level. It is mostly beneficial to be bilingual.

Different people have various aptitudes for different things. Certain people learn music easily; on the other hand, certain people learn languages easily. It is connected

with general ability and motivation. Aptitude to learning a second language is quite interesting in regions where bilingualism and multilinguism are everyday occurrences. For example, in India, Fiji and Pakistan bilingualism or multilinguism is standard and as easy as playing sports. (Paulston 1988)

Bilingualism is a worldwide phenomenon and it is almost impossible to find a society that is monolingual. Speaking more languages is also caused by immigrants who want to work in another country because they are better valued. For that reason they need to learn a language of a foreign country. (Baker, Jones 1998: 655) It is a kind of tool for communication among people all over the world.

This is closely connected to advantages and disadvantages of being a bilingual. Children usually do not realise them at the early age, however, they appreciate their language skills and abilities later.

Children generally have a skill to become bilingual. On the other hand, it is sometimes easy for a child to lose the other language. This happens when they choose one language to speak with. Then, the minor language is forgotten as quickly as learnt. It shows there are also disadvantages of bilingualism mentioned below.

Disadvantages of Bilingualism

According to one research bilingual children have delayed speech. (Baker, Jones 1998: 6, 649) On the other hand, there is another research that proves the age at which a child becomes bilingual does not affect the development of his speech. (Grosjean 1982: 178-179) As far as education is concerned, a child may lack success at school. Generally, a child needs to be praised and needs to be at the same level as the other pupils at his age. Sometimes it may happen that both languages are underdeveloped, a child is not able to use one of the two languages properly and is unable to follow the school curriculum. In some cases it is difficult to encourage a monolingual child to

become bilingual. If the family move quite often, the child can have problems with the adaptation for cultures, traditions or with different behaviour of people.

One of the last disadvantages of being bilingual is that a bilingual person has two identities and then it can be difficult to identify them. (Grosjean 1982; Baker, Jones 1998; Harding, Riley 1999) In E. Bialystok's words bilingual children develop vocabulary more slowly than their monolingual peers. They also have a smaller vocabulary in each of their languages than monolinguals, at least in the first few years. (2001: 222)

To conclude this, there is a short outline of the main disadvantages of bilingualism:

- delayed speech
- Insufficient achievements at school (linguistic, cultural)
- Problems with identity
- Loss of one language
- Both languages underdeveloped
- Adaptation for cultures and traditions

CHAPTER IV
RESULT AND DISCUSSION

The aim of the present study was to review the studies related for language acquisition in bilinguals of last ten years. Studies on bilingual language acquisition have become more frequent, especially during last two decades. Only studies that meet the above -mentioned inclusion criteria are listed (see methods). The studies are classified under four main categories based on language acquisition in bilinguals: Theories of language development in bilingual children, stages of language Development in bilingual children, milestones of language development in bilingual children. All studies have been described briefly.

1. Studies related to theories of language acquisition in bilinguals.

In this section different theories studied were as follows.

a. Studies related to Processing theory.

b. Studies related to Dynamic system theory.

c. Studies related to Cognitive theory.

d. Studies related to Creative construction theory.

2. Studies related to stages of language acquisition in bilinguals.-these sections are sub-categorized into: a. Studies related to Phonology /Phonetics.

b. Studies related to Morpho-syntax.

c. Studies related to Semantics/Pragmatics.

3. Studies related to milestones of language acquisition in bilinguals.

4. Studies related to models of language acquisition in bilinguals.

In this section different models studied were-

a. Studies related to Revised hierarchal model.

b. Studies related to Bilingual interactive activation model.

c. Studies related to Bilingual single representation model.

d. Studies related to Matrix language frame model.

1. Studies related to theories of language acquisition in bilingual children

Twenty –five studies related to theories of language acquisition in bilinguals were studied in the review, under these section several six studies related to Processing theory by Dijikstra etal (2004) were studied. Five studies related to Dynamic system theory by Debot and Ellis (2007) was reviewed. Eight studies on cognitive theory were reviewed. Six studies related to creative constructive theory were reviewed.

Some of the studies regarding theories of language acquisition in normals suggested that theories of language acquisition is because of LAD and UG; and certain theories related to language acquisition theory such as biological maturation theory, linguistic theory, social interaction theory, information processing theory, cognitive theory .But the theories involved in bilinguals shows that second language acquisition a dynamic system theory approach may help us develop a more realistic idea of language learning in bilinguals.

Dynamic system approach to SLA provides a framework and instrumentation that allows merging the social and the cognitive aspects of SLA and shows how their interaction can lead to development of language in bilinguals. Thus the Dynamic system Approach to language learning in bilinguals is found to be the most comprehensive theory. The developmental process remains the same in bilingual as monolinguals. Dopke (2000) found out that communication styles are also a major variable in successful bilingual development.

Meisel (2002) identified that bilinguals tend to focus more on formal aspects of language and are able to acquire certain grammatical constructions faster than most monolinguals. Thirty one other studies also supported the same findings.

2. Studies related to stages of language acquisition in bilingual children

Twenty four studies related to stages of language acquisition were reviewed. Under these section, stages of language acquisition were further sub-categorized into three headings and articles related to them are reviewed which are as follows-eight studies related to acquisition of phonology/phonetics were reviewed. Seven studies related to morpho-syntax were reviewed. And nine studies related to semantic and pragmatic acquisition of language were reviewed.

Several studies on language acquisition in bilinguals were done and it has been concluded that the developmental pattern is similar in both monolingual as well as bilingual, but many studies suggested that bilingual acquires the language earlier than monolinguals, this is because of the simultaneous exposure to language, profiency and age at which they were acquired.

Certain other result concluded that bilinguals have excellent reading performance in both languages than monolinguals that were on par with respect to others variables. While in cross-linguistic transfer in verbal compounds of preschool bilingual children it was found that bilingual's children would show an advantage over monolingual children in producing and understanding novel verb-object (VO) compound on the basis of influence from their grammatical English VO compounds. On the whole it can be concluded that the development of language skills is far more proficient in bilinguals compared to monolinguals.

According to De Houwer (2007), language acquisition in bilinguals is same as monolinguals but certain evidences show that bilinguals have a cognitive advantage over monolinguals, particularly in areas such as-cognitive flexibility, analytical skills Meta-linguistic awareness. Twenty-four studies supported the same findings and other studies do not highlight the cognitive advantage in bilinguals.

In the review stages of language acquisition in bilinguals several domains are studied and classified as:

I. Studies related to phonology/phonetics.

Eight studies related to phonology/phonetics were reviewed and it was found that in recent studies of loanword adaptation, two main sides have emerged. Phonological accounts posit that foreign words are adapted on the basis of similarity between receptor language (L1) and source language (L2) phonemic categories by bilinguals with access to the phonology of both L1 and L2 (e.g. LaCharité and Paradis 2002, 2005). On the other hand, phonetic accounts emphasize the influence of low-level perceptual factors in the mapping from L2 to L1 forms (e.g. Silverman 1992, Peperkamp and Dupoux 2003). And the evidence examined from Burmese is in favor of an intermediate model (cf. Kenstowicz 2001, to appear ; Yip 2002, 2006; Heffernan 2005) incorporating both language-independent phonetics and language-particular phonology. On the basis of a corpus of 200 loanword adaptations from English into Burmese, the study shows that while Burmese loanword adaptation involves multiple scansions like Cantonese (cf. Silverman 1992), the first scansion in Burmese is phonological. For example, English allophonically aspirated [p^h] is consistently adapted with Burmese /p/ (cf. 1a-c) rather than Burmese /p^h /, which is used instead to represent English [f] (cf. 2a-c). This mapping cannot be accounted for in a model where acoustic perceptual similarity is the only consideration in adaptation.

Wendy Baker (2002) examined the influence of cross-language similarity and age at the time of L2 acquisition on the organization of a bilinguals' L1 and L2 phonetic systems. In particular, this study tested three hypotheses. The first hypothesis was that more similar vowels across the two languages would be more likely to influence each other than those that are less similar across the two languages. The findings of this study indicated that this hypothesis was upheld: Both early and late bilinguals were more likely to produce differences between English and Korean vowel pairs that were relatively dissimilar from each other more than those that were relatively similar to each

other. In fact, the extent to which L1 and L2 segments interacted depended on how perceptually similar those segments were.

The second hypothesis of this study was that, because early bilinguals are initially less likely than late bilinguals to associate L2 sounds with L1 sounds, they would also be more likely to maintain differences between L1 and L2 vowels even at initial stages of L2 learning. This hypothesis was also upheld by the results of this study: Even at beginning stages of L2 learning, early bilinguals were more likely than late bilinguals to produce differences between English and Korean vowels, especially those that were the most confusable across the two languages. Such findings suggest that, as occurs in bilingual first-language acquisition, younger L2 learners have two phonetic systems even at the onset of learning a second language.

The final hypothesis of this study was that, because they are less likely initially to identify L2 sounds with L1 sounds, with more L2 experience, younger L2 learners would be more likely than older L2 learners to keep their two languages separate. This hypothesis was also supported by this study. Early bilinguals were able to produce differences between highly confusable English and Korean vowel pairs after 7 years of L2 experience. In contrast, late bilinguals with a similar amount of English experience were not able to do so. These findings suggest that the native language exerts a lesser degree on the second language for early than for late bilinguals, or that the early learners were better able to separate at least some L2 sounds from L1 sounds.

These findings suggested that late bilinguals maintain only one phonetic system (L1) even after several years of being exposed to and speaking the L2. In contrast, these findings seem to suggest that early bilinguals maintain two separate phonetic systems, and do so from the onset of L2 learning. Thus, early bilinguals, even those who learn their L2 in later childhood (like the participants in this study) learn sounds more similarly to simultaneous bilinguals than to adult L2 learners. Further analyses will reveal the extent to which these early and late bilinguals are able to maintain separate categories (long-term memory representations) for L1 and L2 sounds and the nature of

these categories, providing greater insight in how cross-language similarity and age of L2 acquisition influence the organization of a bilinguals' two phonetic system.

In addition, further analyses explored the nature of the relationship between highly similar vowels across the two languages, or those sounds which neither the early nor the late bilinguals were able to separate across the two languages. In summary, the findings of this study shed light on why there are differences between the two phonetic systems of early and late bilinguals. In particular, because the L1 categories are still developing when the second language is learned, early bilinguals develop a separate system for native- and second-language sounds.

In contrast, adults, because their native-language system is completely developed by the time they learn a second language, develop categories that resemble a unidirectional influence from the L1 to the L2. In short, these findings demonstrate that the state of the bilinguals' native language system at the time of second-language learning and the amount of similarity between native- and second-language segments may explain why there are differences in how the two languages interact in early versus late bilinguals.

II.Studies related to Morpho-syntax

Seven studies related to morpho – syntax were studied by several researchers and it was investigated the effects of child internal (age/time) and child external/environmental factors on the development of a wide range of language domains in successive bilingual (L2) Turkish-English children of homogeneously low socio economic status

Forty-three L2 children were tested on standardized assessments examining the acquisition of vocabulary and morpho-syntax. The L2 children exhibited a differential acquisition of the various domains: they were better on the general comprehension of grammar and tense morphology and less accurate on the acquisition of vocabulary and (complex) morpho- syntax. Several researchers have concluded that profile effects were

confirmed by the differential effects of internal and external factors on the language domains. The development of vocabulary and complex syntax were affected by internal and external factors, whereas external factors had no contribution to the development of tense morphology.

III. Studies related to semantics and Pragmatics

According to Thomas Roeper (2001) in modular an pragmatic perspectives on minimal default grammar .They compared the results from monolingual children with object omissions in bilingual children who have acquired two languages simultaneously. The longitudinal studies of bilingual Dutch±French, German±French, and German±Italian children show that the bilingual children behave like monolingual children regarding the type of object omissions in the Romance languages. They differ from monolingual children with respect to the extent to which object drop is used. At the same time, the children differentiate the two systems they are using. They claimed that the difference between monolingual and bilingual children concerning object omissions in the Romance languages is due to crosslinguistic influence in bilingual children: the Germanic language influences the Romance language.

Cross linguistic influence occurs once a syntactic construction in language A allows for more than one grammatical analysis from the perspective of child grammar and language B contains positive evidence for one of these possible analyses. The bilingual child is not able to map the universal strategies onto language-specific rules as quickly as the monolinguals, since s/he is confronted with a much wider range of language-specific syntactic possibilities.

One of the possibilities seems to be compatible with a universal strategy. And they argued for the existence of cross linguistic influence, induced by the mapping of universal principles onto language-specific principles ± in particular, pragmatic onto syntactic principles. This influence will be defined as mapping induced influence. They account for the object omissions by postulating an empty discourse-connected pro in

pre-S position (Muller, Crysmann, and Kaiser, 1996; Hulk, 1997). Like monolingual children, bilingual children use this possibility until they show evidence of the C-system (the full clause) in its target form.

Many simultaneous bilinguals exhibit loss or incomplete acquisition of their heritage language under conditions of exposureand use of the majority language (Silva-Corval´an, 1994, 2003; Polinsky, 1997; Toribio, 2001; Montrul, 2002). Recent work within discourse-functional (Silva-Corval´an 1994) and generative perspectives (Sorace, 2000; Montrul; 2002; Tsimpli, Sorace, Heycock, Filaci and Bouba, 2003, in press) suggested that while syntax proper is impervious to language loss attritions, syntax-related interfaces like lexical-semantics and discourse-pragmatics are not. This study investigates argument expression in adult simultaneous bilinguals who are heritage speakers of Spanish, because in this language subjects, direct, and indirect objects are regulated by syntactic, pragmatic and semantic factors.

It was hypothesized that if language loss affects interface areas of competence more than the purely syntactic domains, then Spanish heritage speakers should display robust knowledge of null subjects as well as object clitics, but variable behavior in the pragmatic distribution of null vs. overt subjects, the a preposition with animate direct objects, and cases of semantically based dative clitic-doubling.

Results of an oral production task administered to 24 intermediate and advanced heritage speakers and 20 monolinguals confirmed the hypotheses. With the erosion of pragmatic and semantic features, the grammars of the intermediate proficiency Spanish heritage speakers appear to display morph syntactic convergence with English in the expression of subject and object arguments.

Nine studies were reviewed and the findings indicated that syntax proper is spared from language erosion/attrition, while discourse-pragmatic and cognitive-semantic domains, which are dependent on input, use and context, are more unstable and vulnerable to change under cross linguistic influence in the grammars of bilinguals. With

the erosion of pragmatic and semantic features, the grammars of bilinguals tend to converge at the morph syntactic level.

C. Studies related to milestones of language acquisition in bilinguals

Twenty-three articles related to milestones of language acquisition were reviewed .Under these section comparison studies on bilingual and monolingual was done by De Houwer (2007).

Bilingual children reach the main language milestones that have been identified for monolingual children at similar ages and in the same chronological order. There is thus no evidence of a bilingual delay. In fact, monolinguals can be seen as being delayed in comparison to bilingual children when the total number of words understood is considered. Specific bilingual milestones apply to bilingual children in addition to the more universal milestones that are relevant for all children. (De Houwer, 2007).Fifteen other studies also supported the same findings.

A quarter of young bilingual children speak only a single language in spite of being raised with two (De Houwer, 2007). This percentage (25%) is much higher than the proportion normally accepted for atypical development: if, for a particular milestone, children score in the bottom 10%, this is taken as an indication of a possible language learning problem. While the fact that some bilingual children speak only a single language is no reason for concern about the language development process (after all, they are speaking their other language), it may negatively impact children's well-being (De Houwer, 2012). Research from older bilingual children had shown that if parents and children do not speak the same language this adversely affects the parent-child relationship (Portes & Hao, 1998). More research was needed on this. If speaking a single language was generally felt to be a negative aspect of bilingual children's development, perhaps, in the future, speaking two languages should be added to the list of important bilingual milestones.

Monolingual children reach the five main "universal" language milestones (1-5) within the same age ranges as bilingual children (Clark, 2009). The single difference between monolingual and bilingual children is that on average, bilingual children at age 13 months reach an overall level of word comprehension that it takes most monolingual children about five more months to reach. That is, the total number of words 13-month-old bilingual children understand equals the average number expected for monolingual children at age 18 months.

3. Models of language acquisition in bilinguals

Twenty Eight studies related to models of language acquisition in bilinguals were reviewed. And under these section different models that were studied are - Revised hierarchical model - six articles related to revised hierarchal model were studied, Eight articles related to Bilingual interactive activation model were studied, six articles related to Bilingual single representation network model by Dijikstra and Ven Heuwen (2002) were studied, And five articles related to Matrix language frame model were studied.

According to Dijikstra and Van Heuven (2002) Bilinguals have a separate system for the L1 and L2 which they learn right from the start, so both languages can be acquired simultaneously. Bilingual comprehend and produce more words than some of the best performing monolinguals which underscores that learning two languages does not compromise lexical development.

Thirty other studies on models involved in bilingual language acquisition made a distinction between the effects of non-linguistic context (such as instruction and stimulus list composition) and linguistic context(such as the semantic and syntactic effects of sentence context) supported by Maud J. and Robert French(2002). Alterribe (2001) that language shift from L1 and L2 of same lexical categories is more accessibility in L2 because of the continuous exposure and usage .According to the inhibitory control model of Green (1986,1988),dominant language(L2),Hence, excitation takes longer time to reactive the L1.

Revised Hierarchical Model (Kroll and Stewart,1994),states that forward translation (L1-L2) takes more time than backward translation (L1-L2),which depends on the proficiency in L2.More proficient group performed equally in both translations ,but less proficient group showed asymmetry in translation(Kroll ,Michael, Tokowics, & Dufour,2002). Models of language production and multilingual models of language production (e.g. Levelt, 1989, 1995; Herdina & Jessner, 2001) show that knowing two languages is the normal condition of mankind rather than an exception.

CHAPTER V
SUMMARY AND CONCLUSIONS

This independent project tries to give a comprehensive review of the studies done on bilingual language acquisition. The study focuses on collecting a large sample of individual studies for the purpose of integrating findings and obtaining a thorough summary of several studies that have been done on bilingual language acquisition, and to provide the reader with single source of extensive information on bilingual language acquisition. These four different domains were identified and the review was done for last ten years related to bilingual language acquisition .

In the review of bilingual language acquisition study total number of article retained and analysed were hundred.The review was done exhaustively in four domains. These are as follows :

A. Studies related to theories of language acquisition in bilinguals.

B. Studies related to stages of language acquisition in bilinguals.

C. Studies related to milestones of language acquisition in bilinguals.

D.Studies related to models of language acquisition in bilinguals.

It is hoped that this review of bilingual language acquisition will serve as a reference guide for speech and hearing professionals, students, clinical linguists and other practioners in applied health sciences who are concerned with the diagnosis, detailed assessment and rehabilitation of people who are bilinguals. While the review may not be very exhaustive, it does provide baseline and directions for such future endeavours Qualitative as well as quantitative analysis was attempted for the bilingual language acquisitions.

So, from reviewed studies of hundred articles on bilingual language acquisition it has been concluded that in bilinguals, language acquisition is faster as compared to monolinguals. These are all because of certain factors such as age at which they acquire,

proficiency, exposure of language etc. And stages and developmental milestones of bilinguals are similar to that of monolinguals, but bilinguals acquire developmental milestones earlier than monolinguals. Model of bilingual's shows that bilinguals have a separate system for the L1 and L2 which they learn right from the start, so both languages can be acquired simultaneously. Bilingual comprehend and produce more word than some of the best performing monolinguals.

Clinical implications-

Various issues studied would have implication for ex.

1. To see the differences in the developmental stages in monolinguals vs. Bilinguals, typically vs. disordered.
2. To see the proficiency of languages in bilingual typically vs disordered speakers.
3. To see issues in historical development on bilingual language acquisition in both typically vs. disordered.

CHAPTER VI

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