

LANGUAGE IN INDIA
Strength for Today and Bright Hope for Tomorrow
Volume 9 : 8 August 2009
ISSN 1930-2940

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**Bi/Multilingualism and Issues in Management of
Communication Disorders
With Emphasis on Indian Perspectives**

Shyamala Chengappa, Ph.D.

Bi/Multilingualism and Issues in Management of Communication Disorders With Emphasis on Indian Perspectives

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Introduction

This article is an extended) version of the **keynote address** delivered by the author at the 7th International symposium on Bilingualism held at Utrecht, Netherlands from 8th -11th July 2009.

An Indian perspective of the following issues are highlighted in this paper.

- Theoretical stand points of the west and the SLPs in India – past, present and future.
- Actual context of Bi/Multilingualism in India
- Indian languages – micro and macro structure
- Assessment dilemmas.
- Issues in assessment and treatment by SLP
- Review of some of our studies
- Clinical implications
- Research implication, needs and future directions

Some theoretical Standpoints affecting SLPs work - Cognitive advantages (or disadvantages) of bilingualism

Early studies

Earlier studies have provided support for the negative effects of bilingualism on cognitive development. Darcy (1953) concluded from review of relevant studies that bilinguals suffer from a language handicap when measured by verbal tests of intelligence. It was proposed that bilinguals never reached comparable levels of linguistic proficiency as did monolinguals. Researchers, theoreticians and professionals alike often viewed the simultaneous acquisition of two languages with apprehension .Starting with the 1960s; the propensity has changed

towards the positive advantages of L2 use. These studies denunciate earlier studies since they depended largely on L2 users who differed in many factors other than knowing a second language. One major limitation was that these studies did not control for socioeconomic status (SES) between the bilingual and monolingual subjects

As McCarthy (1930) argued, bilingualism in America was confounded with SES since more than half of the children classified as bilinguals in early studies belonged to families from the unskilled labor group. There was also a failure to adequately assess and consider differences in degree of bilingualism. There was a lack of clarity in how researchers defined and evaluated the bilingual or monolingual status of their subjects. Hakuta *et al.* (1986) opined that early psychologists used a societal definition of bilingualism in determining language proficiency .

Such methods therefore do not hold up to the present day scrutiny and may have thus resulted in biased results favoring monolinguals. Peal and Lambert's (1962) research suggested cognitive advantages to being bilingual, calling into question the validity of earlier studies and supporting the claims linguists had been making for years. With control in place for socio-economic variables many studies showed bilingual children as showing better metalinguistic skills across different language pairs.

Furthermore, Galambos (1982) found that El Salvadoran children proficient in English and Spanish demonstrated a stronger syntactic orientation when judging grammatically correct and incorrect sentences in both languages. Various studies in last two decades have shown the influence of bilingualism on word awareness leading to better reading skills (Bialystok & Herman, 1999; Bruck & Genesee 1993). These benefits were not just restricted to balanced bilinguals but significant benefits were observed for children whose contact with a second language was restricted (Yellend, et al, 1993).

Research appears to suggest a positive relationship between bilingualism and a wide range of other cognitive measures, including enhanced ability to restructure perceptual solutions (Balkan, 1970), stronger performances in rule discovery tasks (Bain, 1975), greater verbal ability and verbal originality, and precocious levels of divergent thinking and creativity (Cummins & Gulutsan, 1974). A growing number of studies have reported advantages in

nonverbal executive control tasks for bilingual children (Bialystok, 2001; Carlson & Meltzoff, 2008; Mezzacappa, 2004) and adults (Bialystok, Craik, Klein, & Viswanathan, 2004; Bialystok, Craik, & Ryan, 2006; Costa, Hernandez, & Sebastián-Gallés, 2008).

In one set of studies, bilingualism has been shown to accelerate the development of executive control in children (Bialystok, 2001; Carlson & Meltzoff, 2008) using nonverbal control tasks such as the flanker task (Mezzacappa, 2004; Yang, Shih, & Lust, 2005), perceptual analysis (Bialystok & Shapero, 2005), and rule switching (Bialystok & Martin, 2004). These effects persist into adulthood (Costa, Hernandez, & Sebastián-Gallés, 2008) and appear to protect bilingual older adults against the decline of those processes in older age (Bialystok, Craik, Klein, & Viswanathan, 2004; Bialystok, Craik, & Ryan, 2006). The difference in executive control between monolinguals and bilinguals is larger in older age because the normal decline of these processes with aging is attenuated for bilinguals. Across the lifespan, therefore, bilingualism boosts the development and postpones the decline of executive control on a variety of tasks.

Of note, these life span effects were found in tasks that were nonverbal and were not obviously related to linguistic processing. It is possible that results may be different for linguistic processing.

Researchers have proposed various theories to explain this positive relationship

1. Objectification theory

This theory claims that by acquiring two languages, bilinguals learn more about the forms as well as the functions of language in general, which affects various cognitive processes. Experiences with two language systems may also enable bilinguals to have a precocious understanding of the arbitrariness.

The ability to objectify language is linked to a capacity. Piaget (1929) termed non-syncretism, is the awareness that attributes to an object do not transfer to the word itself.

Edwards and Christophersen (1988) found that bilinguals may have an enhanced level of such understanding, and researchers such as Olson (1977) have shown such capacity to be linked to literacy. Lastly, by learning that two words can exist for a single referent, bilinguals

may develop not only increased knowledge of their L1 and L2, but of language in general as a symbolic system. Thus, such children may process concepts through higher levels of symbolic and abstract thinking.

2. Code switching theory

Because bilinguals are able to move rather easily from verbal production in one language to that in another, they may have an added flexibility.

Peal and Lambert (1962) theorized that the ability to code-switch provides bilinguals with an added mental flexibility when solving cognitive tasks

3. Verbal mediation theory

Bilinguals are believed to have an enhanced use of self regulatory functions of language as a tool of thought guiding inner speech or verbal thinking. Language may be a more effective tool for bilinguals in approaching cognitive tasks.

In order to understand the influences of bilingualism, it is important to take the unique features of participants, tasks and the relationships of those tasks to the constructs into consideration. The education level and the language of parents, the literacy environment , the extent of the child's proficiency in the first language, the purpose of learning the second language and the degree of community support are a few variables to be controlled .

Grosjean (1998) identifies methodological and conceptual issues in studying bilinguals, first explaining the issues, namely bilingual participants, language mode, stimuli, tasks, and the models of bilingual processing, then discussing the problems caused by these issues and finally proposing tentative solutions to those problems.

It is imperative that we design our studies in such a way that above mentioned variables be controlled to the maximum possible extent to generate reliable results.

Bi/ Multilingualism in the Global Indian Context

Bilingualism/multilingualism is more a norm than an exceptional phenomenon in today's world. The Handbook of Bilingualism by Bhatia and Ritchie (2004a) presents quite an interesting scenario of bilingualism and multilingualism in the world and India.

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The world's estimated 5,000 languages are believed to be spoken in about 200 nations, an average of 25 languages per nation, and it is estimated that about two-thirds of children in the world grow up in a bilingual environment. Over 41 per cent of English speakers are estimated to be bilingual. The spread of bilingualism and multilingualism is likely to increase in the coming years. As a consequence, research in this field has also grown many folds in recent years.

Childhood Multilingualism in India

Demographics of India

- India has 22 constitutionally accepted languages (Official).
- Four Classical languages
- There are about 1652 mother tongues (Census of India 1961) spoken in and around the country.
- The major language families in India include

Indo-Aryan (74.3%, 209 languages), Hindi, Gujarati, etc...

Dravidian (23.9%, 73 languages), Telugu, Kannada, Tamil, etc...

Austro-Asiatic (1.2%, 1268 languages), Khasi, Munda, etc...

Tibeto-Burman (0.6%, 350 languages), Tibetan, Manipuri, etc..

Some languages have scripts while many do not have. More languages are now involved as participants in the current increase in bilingualism and trilingualism. More than one script is used to write several languages, and several scripts used to write a single language; many Indian languages share a similar set of linguistic features across the language families, etc. Statistics is difficult to be obtain with accuracy as operational definitions themselves are not clear.

As per the 1991 Census, the percentage of bilinguals and tri-linguals in English (8.00%, 3.5% respectively, which can be higher than reported) is more than those of the same categories in Hindi (6.15%, 2.16% which can be higher than reported). Several states of India have been formed on linguistic basis like:

- Karnataka state based on Kannada language speakers,

- Andhra Pradesh state based on Telugu language speakers,
- Tamil Nadu from Tamil language speakers,
- Gujarat based on Gujarati,

etc.

Nature of Bi/Multilingual Exposure in Children

The language that the children get exposed to would usually follow simultaneous or successive pattern. Simultaneous exposure would have mother tongue +, father tongue + and the regional language in the picture. Simultaneous exposure of these two or more languages with English playing a very significant role in the middle and upper middle class home situation has become very common in urban India.

A true and balanced bilingualism emerges with person specific (for example mother speaks Kodava and father speaks Kannada only) exposure to two or more languages. Equal duration of exposure to the two or more languages in the given context would also facilitate balanced bilingualism or nearly equal proficiency in the two or more languages. Successive bi/multilingualism would involve two languages at home initially and then exposure to school languages. They include usually medium of instruction along with the second (Regional/Kannada for example) and third language (National Language, Hindi) in the regional context like Mysore in the State of Karnataka, of South India. The situation of simultaneous exposure is emerging as a rule rather than exception for several reasons.

Hindi Language and multilingualism in the national scenario:

There are two dimensions to the situation:

- Hindi speakers being multilingual in other languages, and
- Other language speakers being multilingual in Hindi.

The rate of bilingualism and trilingualism in the country is on the increase from decade to decade. The same was in 1961- 9.70%, in 1971- 13.04%, in 1981-13.34% and in 1991- 19.44%. However, speakers of Hindi are least bilingual (11.01%), and least trilingual (2.98%) in any other language(s). Their bilingual and trilingual profile, thus, is far below the national average of 19.44%. However one finds an increase of bilingualism among Hindi speakers in

1981 from 4.76% to 11.01% in 1991. But, among other language speakers, Hindi has spread substantially. The following statistics of the 1991 Census for the bilingual and trilingual speakers clearly reveal this situation.

Multilingualism of Major Indian Language Speakers in Hindi

	Language	Multilingualism	Bilingualism	Trilingualism
1.	Kashmiri	52.52	42.16	10.36
2.	Sindhi	50.61	40.74	09.91
3.	Punjabi	36.25	30.75	05.50
4.	Nepali	35.46	23.25	12.21
5.	Marathi	25.79	23.79	02.00
6.	Konkani	24.75	08.58	16.47
7.	Manipuri	24.31	10.02	14.29
8.	Gujarati	23.95	22.13	01.78

9.	Urdu	20.61	16.60	04.01
10.	Malayalam	19.07	02.69	16.38
11.	Assamese	16.93	08.82	08.11
12.	Oriya	11.36	04.56	11.36
13.	Telugu	08.01	03.28	04.73
14.	Kannada	08.98	03.89	05.09
15.	Bengali	06.64	03.99	02.65
16.	Tamil	01.56	00.70	00.86

Multilingualism among other minor languages is widespread and normally it is in the language of the State or the Union territory where their speakers mainly reside. At the state level, for example, in Karnataka state of India, there are around 166 native languages. Some of the major native languages are given in the following table along with the percentage of population.

Percentage of Population with different mother tongues in Karnataka.

Mother Tongue	1991 Census (in percentage)
Kannada	66.2
Urdu	9.96
Telugu	7.39
Marathi	3.64
Tamil	3.84
Tulu	3.06
Hindi	1.96
Konkani	1.57
Malayalam	1.68

URBAN AND RURAL DISTRIBUTION

India is a country of mainly villages. In this rural background also multiethnic and multicultural plurality of languages is nurtured. In the rural set up also, once the child becomes the part of socialization process, as there is extreme emotional bonding in the neighborhood and therefore an extended family situation arises, the mother tongue as well as the other tongue of the neighbors/ caretakers is nurtured. In rural background there are some large pockets of same language speaking community (though not always, immigration of labor class from different language set ups is very common). Children in urban setup are all bilingual or multilingual from the beginning with L1 at home and L2 at school and/ or neighborhood.

The Table given below illustrates the distribution of various mother tongue speakers in the rural and urban areas in the state of Karnataka of India.

Rural and Urban distribution of different mother tongues

	Rural	Urban
Kannada	83.30	16.70
Tulu	77.60	22.40
Telugu	65.50	34.50
Marathi	63.11	36.89
Malayalam	60.06	39.74
Konkani	58.27	41.73
Urdu	41.05	58.95
Tamil	28.46	71.54

It is clearly seen that Kannada, the Official Language of the state is the mother tongue mainly of rural people, and Tamil, Telugu, and Malayalam etc... form mainly a languages of

migrants, is an urban phenomenon. Also, the languages whose speakers show a decrease in their strength are seen in both urban and rural areas.

Bilingualism in Karnataka State of India

The following table reveals the direction in which bilingualism is distributed in Karnataka state of India. Most of the bilingual Kannada speakers are bilingual in Hindi. Among the minority language speakers, Marathi speakers are least bilingual.

Sl. No.	Language	1991
1	Kodagu	86.99
2	Konkani	70.11
3	Malayalam	38.58
4	Hindi	64.96
5	Telugu	90.32
6	Tamil	65.78
7	Tulu	96.18
8	Urdu	82.46
9	Marathi	78.23

Social Contexts of Bi/Multilingualism Exposure

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Social contexts of language acquisition and use would be beginning from home, neighborhood, school, public places, travel, etc...

Home Environment

Marriages in cross-cultural and cross-linguistic contexts have become quite common in India with increasing globalization. This is significantly so in the middle and upper class of socio-economic strata. In this group, English automatically assumes the role of commonest link language. Inter-language marriages therefore become breeding ground for bi/multilingual household where the children are born into bi/multilingual contexts.

In the Mysore context too, mother tongue being Kannada/ Telugu/ Tamil at home, Kannada in the neighborhood and at school pervades the situation in the lower socio economic strata. Upper and middle class contexts have Kannada and English situation at home as well as outside of school. Different mother tongues (Tamil, Telugu, Tulu, Malayalam, Kodava, Konkani, Havyak languages and their dialects, besides Kannada) are also common. With this background, the situation would be mother tongue L1 + local / regional language + English, a language of sophistication and globalization increasingly adopted by the middle and higher socio economic strata. Home would have L1 only, or 2 or more languages L1+L2+L3 etc. Any Combinations/Permutations depending on socioeconomic & educational background is possible.

Bilingualism in pre-school and primary school

- Indian education system has three language formula in which,
- Three languages
 1. Mother tongue or Regional language,
 2. Official language (Hindi) and
 3. Associate official language (English)

These languages are included in the curriculum and thereby making the child as either bilingual or multilingual during school age. Educationally, it is well known that earlier and greater use of each language of the context brings in earlier mastery and proficiency in each of the languages of exposure.

With the medium of instruction, 2nd and 3rd languages of school bring in greater awareness of language differences and its use along with the social aspects like register, idiolects etc., Some languages have scripts and some do not have like Kodava, Tulu, Konkani in Karnataka and the Regional language Kannada is fostered more as that script is used in written communication with the former languages. So a child already exposed to 2 or 3 languages in the oral context in the home environment, gets into to the instructional context of the 1st, 2nd, 3rd languages. They are usually combinations of regional, national, and global (link) language. Medium of instruction is English/Regional language.

Bi/ Multilingualism and Society

Mohanty (1994a, 1994b, 2000, 2001, 2003c) emphasizes the developmental aspects and educational implications of multilingualism in the Indian sociolinguistic and sociocultural system and argues for a contextual view. His theoretical framework is based on the Vygotskian view that all the cognitive processes are rooted in socialization and are mediated by a variety of cultural tools which include language, the number system, art and architecture, etc. He views the acquisition of languages and its use as an overlapping and complementary process of the acquisition of culture. He suggests a model which explains psycholinguistic processes such as early language development and the use of language for literacy and education in the Indian multilingual-sociolinguistic cultural context. He makes a plea for the healthy practice of bilingualism and highlights, through research findings, the positive aspects of bilingualism in India where cultural pluralism and multilingualism are accepted norms.

Reading in Two or more Languages

In India, it is very common for children to start learning to read in more than one language simultaneously from the very beginning. The two languages may have very distinct features in terms of both spoken and written varieties, as between English and any other Indian languages. A lot more remains to be understood in terms of the details of the actual processes involved in language socialization in Indian multilingual society and the factors influencing the same. Case specific research would bring in knowledge of bilingual advantage (or disadvantages). All aspects of bilingualism need to be studied for a investigation of different

variables/ contributors and their impetus. In clinical context also there is a greater need for comprehensive research studies to be undertaken. For example, in case of childhood language impairments involving specific language impairment, aphasias, autism and mental retardation, knowledge of the nature and extent of acquisition/learning, relearning / recovery in the use of known languages is necessitated.

With the child for example having SLI, is it beneficial to use one or two languages?

How Does Facilitating One Language Differ from Fostering Two or More Languages with a Language Impaired Child?

Case specific research would bring in knowledge of bilingual advantage (or disadvantages). All aspects of bilingualism need to be studied for a investigation of different variables/ contributors and their impetus. In clinical context also there is a greater need for comprehensive research studies to be undertaken. Contrary to the traditional approach and stand point of constraining to one language only, It is strongly felt that nurturing both the languages from the beginning will be beneficial in the long run (even with mental retardation) although initial delay may be there in language learning by the child for the same reasons of all mental and cognitive skills development.

With average intelligence, we adopt the approach that all languages of exposure in the given context need to be encouraged. Accordingly, detailed assessment and therapy may be undertaken in all (at least for those for whom clinicians are available) the languages of exposure and research with respect to each of these needs to be facilitated. It is felt this situation of bi/multilingual intervention (after assessment) would provide a context of greater cognitive support & flexibility and therefore better communication in children. Further research support and documentation, however, are felt necessary.

There is a realization that it is vital that the clinicians have adequate competency in assessing various aspects of language in a systematic way. The implications of such a realization for the clinicians attempting language assessment in the unfamiliar language are readily apparent. It has been suggested that these age equivalent language tests could be used for assessing second language acquisition in bi/multilingual individuals. However, the normative data has been drawn primarily from mono-lingual subjects.

This appears to be based on the assumption that the processes of first and second language acquisition are similar. Knowledge of normal processes in monolingual individuals alone may not be sufficient for making clinical decisions, such as making differential diagnosis and planning intervention strategies in bi/multilingual individuals. This is especially true in metropolitan cities in India where the environment is often multilingual. But, there is little if any published information on the language use patterns of multilingual families in the Indian context.

American Speech-Language and Hearing Association (1989, 1993) provides guidelines on clinical and academic competencies for “bilingual” speech-language pathologists. To practice ethically as a bilingual clinician in USA it is not enough to speak two languages but have competency in intervening, assessing and providing intervention and counseling in the two languages. The clinician is required to have knowledge in both languages in the areas of normal processes, assessment and intervention. Such a recommendation appears idealistic considering the five bilingual family types reported by Harding, and Riley 1986 cited in Rao & Mukundan (1998) shown in below **Table:**

Family Pattern	% of children with communication disorder falling in each patten (N=74)
✳ Monolingual family. Children attend schools where the medium of instruction is in a language same as the spoken at home, but the neighbourhood is bilingual.	28.9
✳ Monolingual family living in a bilingual neighbourhood which includes their languages. However, medium of instruction at school was different from that spoken in the neighbor-hood	22.7
✳ Monolingual Mother, Father was bi,ingual spoke the language known to the mother and one more language which may or may not be the medium of instruction of the child at school. The neighbor-hood was frequently Bilingual but occasionally multilingual.	13.4
✳ The parents and the neighbourhood is bi/multilingual. Both the parents are conversant with the medium of instruction in the school.	7.2
✳ Totally monolingual situation	4.1

Such studies as those discussed above have not been reported in India, specially involving families with children having communication disorders. Hence an attempt was made by the authors to describe the nature of bi/multilingual families whose children attended speech-language therapy at the A.Y.J. National Institute for the Hearing Handicapped, Mumbai (Rao & Mukundan, 1998).

Reading & Writing Development in Bilinguals

Padakannaya et al. (2002) reported an interesting three-year longitudinal study on the simultaneous acquisition of reading and writing in English and Kannada. The children under study showed different strategies and speeds in learning to read letters, words, and non-words

across English and Kannada. There were significant differences in the developmental patterns of literacy skills too. For instance, the development of writing skills for words and non-words in Kannada was almost simultaneous and parallel, but it was not so for English. Relatively, the Kannada-reading performance was better than the English reading performance for both words and non-words.

In a very recent study, Gupta and Jamal (2007) examined the reading strategies of grade-three-level bilingual children in Hindi and English. The results suggested that children use different strategies- lexical for English and sub-lexical for Hindi-depending on the demands of specific orthography.

Similar findings were reported by Padakannaya and Rao ((2002) after testing Kannada-English bilingual children on rapid reading. Such studies have implications for educational planning in our multilingual set-up. Even a study (Abu-Rabia and Siegel, 2003) which compared the development of simultaneous reading skills in three languages as diverse as Arabic, Hebrew, and English suggested that trilingualism of that nature did not have negative consequence on the development of oral language and reading skills in those languages in spite of their different orthographies.

SLP traditionally have believed that Bi/Multilingualism is detrimental to language. Acquisition in case of any speech and language delayed by disordered child, often held premise among speech language pathologists, that multilingual environment contributes to language delay is questionable.

Important Questions

Certain questions which need to be addressed by future researchers are:

1. Does multilingualism cause delay in speech and language acquisition? - No
2. Is the speech-language pathologist's recommendation that caregivers and family use only one language with the child with delay in speech and language justified? - No
3. Is bi/multilingualism a negative factor affecting spoken language skills in children with normal non-fluency, stuttering, phonological delay and language learning disorder? – No

4. What strategies should the Indian clinician adopt for ensuring that her/his acquired skills in languages does not deteriorate? - Frequent usage

Should a course for teaching spoken language skills in languages of the Client be made mandatory in all graduate courses in speech and hearing? Or should it be left to the students to “pick up” the language? If so, how many language are mandatory for a clinician. (Rao & Mukundan, 1998)

Language Mixing

The phenomena of code mixing and code switching in bi/multilingualism are interesting because they join the boundaries of contrastive linguistics, sociolinguistics, and psycholinguistics. The participating children were showing difficulties in reading English. According to the study, two of the tests, which discriminated between the successful and unsuccessful readers in L2, were visual discrimination and name-copying.

Code mixing refers to the mixing of various linguistic units (morphemes, words, modifiers, phrases, etc.) primarily from two participating grammatical systems within a sentence, while code switching operates across sentences of two language system.

Code mixing thus is an intra-sentential phenomenon whereas code switching is inter-sentential. Bhatia and Ritchie (2004a) use the term ‘language mixing’ for ‘code mixing and switching’ together and describe several social and psychological factors involved in such use. Their analysis showed that language mixing is not random but systematic and complex.

There is a need for more such studies to understand the underlying cognitive mechanisms and the conditions under which a positive cross-linguistic transfer can be achieved. Social variables such as class, religion, gender, and age can influence language-mixing behavior. They observed that sometimes people might express a negative attitude overtly towards Hindi-English languages mixing but would still have a positive attitude unconsciously which would be reflected by liberal language mixing, provides a more psycholinguistic dimension of the phenomena. Matrix language is the base language that gives the sentence its basic character. The language that contributes the ‘imported’ material is called embedded language (Bhat & Chengappa, 2004).

The matrix language-frame (MLF) model describes language mixing on the basis of the hierarchical relationship between the matrix language and the embedded language. Bhat and Chengappa tested the matrix language frame model on normal Kannada-English bilinguals and the results revealed an underlying matrix language system for Kannada-English language mixing.

Indian Languages: Some Aspects of Macro & Microstructures

The Dravidian languages have interesting structures compared to less morphologically complex languages like English. For example, compounding is relatively frequent, postpositions serve the functions prepositions serve in other languages, scrambling of word-order is possible, and left-branching structures are more frequent. Hindi is the official national language of India and is written left to right in a script called *Devangari*. Hindi is highly phonetic; i.e. the pronunciation of new words can be reliably predicted from their written form and this is in strong contrast to English. In comparison with English, Hindi has approximately half as many vowels and twice as many consonants.

This leads to several problems of pronunciation. One difficulty is distinguishing phonemes in words such as *said / sad; par / paw; vet / wet*, etc. Consonant clusters at the beginning or end of words are more common in English than Hindi. This leads to errors in the pronunciation of words such as *straight (istraight), fly (faly), film (filam)*.

Compared to English Hindi has weak but predictable word stress. Learners therefore have considerable difficulty with the irregular stress patterns of words such as *photograph / photographer*. Hindi has tenses that similar those used in English: present simple, past continuous, etc., but there is a lack of correspondence in their use to express various meanings. This leads to the very common overuse by Hindi learners of the present continuous when in English the present simple is required: ***I am always playing golf on Sundays. / I am not knowing the answer.***

English, of course, is prevalent in India, and for this reason Hindi learners may well be extremely fluent. Nevertheless, native-English speakers often have difficulties understanding them because of the combination of the pronunciation problems listed above and the use of Hindi intonation patterns.

Dravidian languages are another major class of languages spoken by more than 200 million people. The Dravidian languages have remained an isolated family to the present day and currently it is mainly occupied the southern portion of India (Tamil, Kannada, Malayalam, etc). A tendency toward structural and systemic balance and stability is characteristic of the Dravidian language group. Dravidian languages show extensive lexical (vocabulary) borrowing, but only a few traits of structural (either phonological or grammatical) borrowing. It has been demonstrated that pre-Indo-Aryan and pre-Dravidian bilingualism in India provided conditions for the far-reaching influence of Dravidian on the Indo-Aryan tongues in the spheres of phonology, syntax and vocabulary.

Studies on Code Mixing and Code Switching

Some Masters degree dissertations taken up on this topic revealed age and manner of acquisition as well as proficiency

Comprehension Deficits in Bilingual Aphasics by Sreedevi (1999).

This study was undertaken to investigate the comprehension disturbances in Tamil – English Bilingual aphasics. 8 bilingual aphasics (2 Broca's, 2 Wernickes, 2 Anomics & 2 global) and 8 normal subjects were included. All had Tamil as L₁ and learnt English in school. These subjects' performance on Revised Token Test on both languages were studied.

Result revealed that normals had no differences between the languages and between subtests in their performance. Aphasics performed poorly on all subtests compared to differences. Some aphasics had better comprehension in Tamil L₁ than in English while some had in English L₂.

Among different types of aphasics, Anomic had better comprehension in both languages (Tamil L₁ & English L₂) followed by Broca's, Wernicke's and Global. The aphasics who attended more no. of therapy sessions had greater performances improvement in their comprehension. The recovery pattern that was seen in all the cases was found to be differential recovery. Some showed good performance in Tamil while the other should better performance in English which roughly depended on proficiency in each of the language.

A Study of Code Switching in Neurologically normal and aphasic Malayalam – English Bilinguals by Krupa (2002).

This Study aimed at comparing code switching behaviors exhibited by M-E bilingual neurologically abnormal adults. Each group had 6 bilingual adults, matched for age, gender, social and education level and language proficiency. Aphasic group consisted of 6 Broca's aphasics. BAT was administered on both the groups.

Results were analyzed using Matrix Language Frame Model. Code switching patterns were analyzed in terms of Matrix language (ML) Islands, ML shifts, Embedded language (EL), ML+EL Constituents, borrowed forms, EL insertions and revisions. For all normal subjects and 3 of the 6 aphasic subjects most of the ML islands were in the Language established by the interlocutor.

The normal subjects and 1 aphasic produced no insertions. EL islands were produced by 2 normal and 1 aphasic subject in monolingual Malayalam context and 3 aphasics in Monolingual English context. ML+EL constituents were produced by 4 of the normal subjects and 5 of aphasics. Revisions and ML shifts were evident in the speech of all subjects. 2 of the abnormal and 4 of the aphasics, while translating from M to E, used the syntactic structure of M, through the lexical items were in English. It was noticed that aphasic subjects exhibited more frequent production of EL, insertions, and ML shifts. So hence the findings contradict the belief that code switching remains unaffected by aphasia. Neither does it support the notion that language mixing is pathological.

Code mixing and code switching in Bilingual Aphasics by Sapna Bhat (2004).

Aphasics produced ML+EL more frequently in all the contexts. However this constituent was considerably reduced in the monolingual English context with only a few aphasics and normal subjects producing ML+EL constituent. EL Islands were increased in aphasics significantly in monolingual contexts when compared to control group. There was a clear cut difference in 2 groups of subjects in terms of revisions with only bilingual aphasics producing this constituent. Although aphasics borrowed lexical items frequently, the difference across 2 groups of subjects was not significant. Morphological mixing was used very frequently by normal Kannada-English bilinguals. Aphasics had lexical semantic level mixing more frequently and this difference was significant in monolingual Kannada context.

Code mixing and code switching in Hindi- English Bilingual Aphasics by Sanjay Kumar (2006).

The result from BAT short version, pointed towards a parallel deficit across the 2 language of the subjects. WAB revealed Broca's Aphasia in 2 subjects and Anomia in 3 subjects in both Hindi and English. For all different subjects most of the ML island were in the language established by the interlocutor. EL, true form of code mixing were more in aphasics compared to normal's. EL insertions (syntactic structure inserted) are more frequent in aphasics and in case of normal's. ML+EL constituents were produced more by aphasics in monolingual Hindi as well as monolingual English context and it was same in case of bilingual contexts. There is an increase in code mixing and code switching among bilingual aphasics. Individual differences in the frequency and type of constituents produced and the context in which they were produced were significantly evident in the code switching patterns of bilingual aphasics.

Narrative Skills in Monolingual and Bilingual Children : An exploratory study by Sreedevi Sathish (2005).

Narratives are a self- initiated, self- controlled form of discourse. The difference in language acquisition in monolinguals and bilinguals have been documented in literature. Present investigation aimed to study the narrative skills in monolingual Malayalam speaking and bilingual – -English speaking children. 10 in each group were used. Narratives were collected for book task and picture task. The differences were noticed in the following parameters. Bilinguals used more number of C-units for story task while monolingual used for picture tasks. MLU- C- unit was more for bilinguals for story task and picture task. No significant difference between groups in their ability to use number of words. Both the groups used grammatically correct sentences. Bilinguals received a higher rating for story grammar complexity when compared to monolinguals for book task. This supports the hypothesis that bilingualism aids better cognitive linguistic skills.

Code Switching and code mixing in simultaneous and late bilingual Children by Harini (2008).

The study aimed at comparing the type and extent of code mixing and code switching in simultaneous and successive bilingual children and to investigate similarities and differences between them. 20 children in the age range of 4-8 years, who were native speakers of Kannada and later acquired English were grouped into 2, simultaneous and successive. Questionnaire regarding exposure of language (International second language proficiency rating scale Ingram, 1983) and socio economic status using SES were checked. Language Proficiency was compared across and within the 2 groups. A picture description task was carried out to examine code switched and mixed utterances. The results obtained from proficiency levels revealed that higher proficiency was indicated in primary and secondary skills in simultaneous when compared to successive groups. When comparing the total number of code mixing and code switching across the 2 groups in different contexts, they were more prominent in successive group than simultaneous group. Hence code mixing and code switching are not abnormal phenomenon, and could be recommended for children with language in- adequacies specially in the period up to language mastery.

Effects of Age, Gender & Bilingualism on Cognitive-Linguistic Performance by Rajasudhakar (2005)

The aim of the study was to evaluate changes, if any, on the performance of the Cognitive – Linguistic Assessment protocol (CLAP). Two group of subjects participated in the study. Group 1 & 11 consisted of forty young and old individuals respectively. Each group had twenty Monolinguals & twenty Bilinguals. Equal number males & females participated in each group. The results revealed that younger individuals were better on Cognitive linguistic tasks than elderly individuals. Bilinguals were better on all the domains of CLAP, compared to monolinguals. Gender difference was not observed in any of the tasks. The study highlights the age and language-related performance differences on cognitive linguistic skills.

A study on neologisms of an early simultaneous bilingual by Shyamala (2008) indicated early beginnings of a development of metalinguistic ability with respect to metaphonological, metamorphological and metasyntactic and subsequently pragmatic abilities in the use of 2 or more languages, by 3-4 years of age, itself. Metalinguistic awareness is considered as a key factor in the development of reading in young children by many and considered as a crucial

component of cognitive development because of its documented relation to language ability, symbolic development, and literacy skills (Bialystok, 1991) which may include

- Sensitivity to the details and structure of language,
- Early word referent distinction,
- Recognition of ambiguities,
- Control of language processing and
- Correction of ungrammatical sentences.

This paper concurred with the above findings and studies suggest important clinical implications for speech language therapists.

Bilingual children who are speech disordered appear to have two separate phonological systems, one for each language. Bilingual children's speech needs to be assessed in both of their languages for a clear profile of the nature of their errors. The deficits underlying various speech disorders will result in the same type of errors (e.g., articulation disorder, phonological delay, consistent atypical phonological errors, or inconsistent phonological errors) in both languages, but not necessarily the same errors. Bilingual children provide a unique opportunity for testing hypotheses about factors affecting language acquisition (de Houwer, 1995; Meisel, 1990). In particular, group studies of various languages combinations are required to explore further the possibility that normally developing bilingual children have a different acquisition path to monolingual children.

SLP Developments at the National Level

There is a greater understanding of the complex nature of language acquisition/learning and about the interaction of different linguistic levels in both production and processing of language today than even a decade ago. Ultimately, the survival and future of any discipline depends on its applicability for dealing with individual and social concerns.

Applied Psycholinguistics is gaining importance in India as can be seen in the rising demand for special teachers to provide remediation for dyslexia and speech-language problems.

Whether on language development, language processing, reading, dyslexia, or Language in India www.languageinindia.com 423

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bi/multilingualism, all the studies were rooted in the Indian socio-educational-linguistic context in terms of conceptualization or/and implications.

Some of the studies tested the hypotheses generated from within (Indian context), while others validated existing hypotheses (Anglocentric) in Indian multilingual-multicultural settings.

One may also see two major trends with respect to the approach/methodology employed. From the context of the U.K., Miller (1984) stated that bi/multilingualism poses problems to the child (with a communication disorder), the therapist as well as the community.

To elaborate, the child's medical problems (for ex: Hearing impairment) is compounded by the social, emotional and language related problems imposed by bilingual educational practices. The therapist's main predicament is how to assess a bilingual child's competencies using monolingual tools and how to involve caregivers belonging to ethnic minority families who are not comfortable with the use of the dominant language in which instruction therapy is being offered.

Issues of language rights, language choice, facilities for bilingual education etc. are those which will concern the community. Miller (1984) made very useful suggestions like development of bilingual/ bicultural remediation materials including computer software and appraisal of caregiver's skills in the language in which therapy is given etc. Miller (1988) talked of the holistic view of bilingualism in which a person might be dominant in the lexicon of one language, but syntax of the other. He argued further that just as monolingual speech communities vary in how they mark different registers and convey nuances of meaning, so do bilingual communities.

Some Issues in Bilingualism Research

Need for Clinical Research

The present review also underscores the role of research in the non-English speaking world in validating the current assumptions about language processing. Language differences have caused considerable miscommunication in the international language disorder area for aphasiology. There are enormous quantitative differences between languages in the extent to which the 'same' symptom appears in the 'same' clinical population. For instance, Language in India www.languageinindia.com 424

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agrammatic patients tend to err by omission in English and by substitution in a richly inflected languages. As a result, English Broca's aphasics appear to be much more severely impaired than their non-English speaking counterparts. Since we are consumers of English dominant aphasia literature, our partial ignorance of the language symptoms of non-English speaking aphasics might lead us to 'discover' patients who display a 'mew syndrome'!

Learning to read in more than one language could be coordinate too, in the sense that one may already be a skilled reader while learning to read in another language. The general models of reading development do not take into account one's prior exposure to print in other languages. Hence there is an urgent need for us to pay more attention to cross-linguistic research and describe the language symptoms in non-English speaking aphasics. This will enable theorists to formulate explanations that accommodate a wider and more variable corpus of data. It is possible to envisage various combinations of prior knowledge and experience which will have a differential impact on learning to read in a second or third language.

However, during the past couple of decades, neurolinguistic research undertaken in the West has shown that the examination of disordered patterns of language in aphasia provides an opportunity to test various linguistic hypothesis about structure, dynamics, development, transformation, evaluation and interrelatedness of various language functions.

Many of the studies with positive results have investigated transfer of learning between similar languages such as Spanish and English. Gupta and Garg (1995) studied children who spoke Hindi as their first language and English as their Second language.

Bhatia and Ritchie (2004a) discussed several conceptual and methodological issues in the area of bi/multilingual research. The first and foremost issue is related to the definition or operationalization of bilingualism in the selection of participants.

Technical Terms – Overkill in the Study of Bilingualism

The literature on bilingualism is infested with so many terms-balanced bilingual, semi bilingual, ambilingual or equilinguals that one finds it hard to select participants for any study, which makes it difficult for comparability. It can be said that bilingualism is a

phenomenon that varies in terms of degrees rather than any absolute measure, as there could

be a non-fluent bilingual. Butler and Hakuta listed eight major typologies, which appear in literature, to classify bilinguals into different categories depending on the linguistic, cognitive, developmental and social dimensions.

Possible Changes Ahead

Bilingualism is a dynamic process as a result of which one's bilingualism profile may undergo changes in one or many of the dimensions mentioned. In other words, providing profiles of participants on the above-mentioned dimensions would be more informative and helpful in researches than just having participants based on these classification terms as categories of participants in any study.

Another way will probably be to express the competency level in the concerned languages with respect to all the four aspect of language-listening, speaking, reading, and writing. As it is very difficult to control all the factors associated with the participants of a study, making bilingual assessment measures co- variations or going for repeated measure designs wherever possible is desirable. It follows from the above discussion that there has been appreciable progress in the area of bi/multilingualism. However, there is ample scope for building stronger models of bi/multilingualism synthesizing all the aspects of acquisition, use, and storabilty.

The Need in India

In India, we have the necessary multicultural and multilinguistic set-up conducive to producing cutting-edge researchers in the field. Our models need to be more specific with explicit operationalization of constructs and be amenable to experimental verification. The stages of language socialization in the bi/multilingual context do need to be explicit with regard to the main components of languages, namely, the morphological, syntactic, and semantic aspects (how they work or develop).

Future Directions

A mere glance at the studies reviewed here would suggest that they are very diverse in nature. But if one examines them closely, it is not difficult to see a common thread running through all those researches. That common girdle is 'Contextualization'. Research conducted so far

may be many but still not sufficient for a big country like India with so much linguistic diversity

It may be true that Indian researchers seem to be satisfied with demonstrating the similarities with Western studies (Mohanty, 2003a) to an extent. The present review, however, does indicate that there have been many original, indigenously guided researches in the past ten years, which have exploited the unique features of the spoken and written varieties of Indian languages.

Interdisciplinary interactions and collaborations are also increasing. Psychologists, speech-language specialists, linguists, and neurologists meet more than before. However, there is a need to widen the horizon by taking up studies on the current social practices of language use, language teaching in schools, teaching English as an additional languages, etc., which have immediate social relevance.

The field of language and communication in Indian will be strengthened by following certain measures:

- (a) multidisciplinary collaborations among researchers and practitioners;
- (b) creation of database or corpus on the various aspects of Indian languages;
- (c) conducting cross-linguistic studies in Indian languages and also across other languages, which may reveal the universal aspects as well as language specificity of phenomena, and
- (d) developing facilities for cognitive neuroscience revolution that is taking place. The collective efforts of all those concerned with language-related research should help immensely in achieving these goals. The rich sources of language data available in India provide ample opportunities and possibilities for cutting-edge research and for developing new theories and in the field of language and communication.

SELECTED BIBLIOGRAPHY

1. Abu-Rabia, S., & Siegel, L.S (2003). Reading skills in three orthographies: The case of trilingual Arabic-Hebrew-English-speaking Arab children. *Reading and writing*, 16, 611-34.

2. Bhat,S & Chengappa,K.C.,(2005)- Matrix language: Listeners' perspective. *Journal of Indian Speech and Hearing Association*, Vol. 19, pp.98-105.
3. Bhatia, T.K., & Ritchie, W.C. (2004a). *The handbook of Bilingualism*. Oxford: Blackwell publishing.
4. Bhattacharya, M., & Lohy, A. (2002). Speech synthesis (Malayalam): Application for the blind and speech output for machine translation. *International Journal of Dravidian Linguistics*, 31, 71-118.
5. Chengappa,S.K. (2001).Speech and language pathology in a multilingual context:Indian Experience.*Language in India*,vol.3,May 2001.Retrieved from the Website:<http://www.languageinindia.com>.
6. Gupta, A & Jamal, G. (2007). Reading strategies of bilingual normally progressing and dyslexic readers in Hindi and English. *Applied psycholinguistics*, 28, 15-13.
7. Gupta, A., & Garg, A. (1995). Reading and spelling children skills among dyslexic children. *Indian Journal of Disability and Rehabilitation*, 8 & 9, 7-18.
8. Miller, N. & Abudarham, S. 1986. Management of communication problems in bilingual children In. N. Miller (ed.), *Bilingualism and Language Disability*. London: Croom Helm.
9. Mohanty,A.K.,(1994a) - Bilingualism in a multilingual society. Mysore: Central Institute of Indian Languages, Mysore
10. Mohanty, A.K., (1994b). *Bilingual in a multilingual society*: Implications for cultural integration and education. Keynote address at the 23rd International Congress of Applied Psychology, Madrid, Spain.
11. Mohanty,A.K.,(2000) - *Language behaviour and process*. In J. Pandey (Ed.). *Psychology in India revisited – developments in the discipline*, Vol. 1: Physiological foundation and human cognition (pp 208-55). New Delhi: Sage.
12. Mohanty,A.K.,(2001). *Psycholinguistic issues in early development and education: A multilingual perspective*. National seminar on Theoretical approaches to early

- development: Implications for intervention. M.S University, Vadodara, India, 9-11, January.
13. Mohanty,A.K.,((2003a). *Multilingualism and multiculturalism: The context of psycholinguistic research in India*. In U. Vindhya (Ed.), *Psychology in India: Intersecting crossroads* (pp.35-53). New Delhi: Concept.
 14. Mohanty,A.K.,((2003c) - *Psychology of language acquisition in bilingualism in India*. In J.W. Berry, R.C. Mishra, & R.C. Tripathi (Eds), *Psychology in human and social development: Lessons from diverse cultures*. New Delhi: Sage Publications.
 15. Misra,G.I (Ed. By), (2009). *Psychology in India; Indian Council of Social Science Research*, Pearson Publications Delhi, Chennai, Chandigarh.
 16. Olson, D.R. (1994). *The world on paper*. Cambridge: Cambridge University Press.
 17. Padakannaya, P. (2002) – Reading and writing in non alphabetic and non-ideographic orthography: The case of Kannada. *Symposium on Learning to read and write in nonalphabetic scripts,International applied psychology conference*, Singapore, 7-12 July.
 18. Padakannaya, P.,& Rao, C (2002)- Effect of words frequency and lexicality on reading speed. *Second international conference on neurology, language and cognition. Institute for Communicative and cognitive Neuroscience*, Cochin, India, 18-20, December.
 19. Rao,E.M &Mukundan,G (1997).Speech, Language disorder & Multilingualism: The Mumbai experience.*Osmania Papers in Linguistics* (Ed. by Vasantha).Vol.22-23,1998.
 20. Santosh K. Kacker, & Basavaraj, V. (1990). *Indian Speech, Language and Hearing Tests- the ISHA Battery*, ISHA Publications.
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