

The Effects of Bilingualism on Children's Verbal Pronunciation Development Moderate by Critical Age

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Abstract

The present study is aimed to find out how children develop their ability to learn language (L1 and L2) before the critical age and to find if this critical age is important for learning two languages, and effects of bilingualism on children's verbal development. In this study qualitative method is used, by observing children through recording instrument. For data collection, 14 children were selected from different institutions, before the age of 12. For data analysis the classification of age, class and the pronunciation errors were recorded. Children were asked to read a poem "Do not go gentle into that good night" by Dylan Thomas. Children's language interference was recorded. They learn two languages at the same time. Through this bilingualism and its disadvantage was observed in terms of L1 interference.

Key words: Bilingualism, effects of bilingualism, children's verbal development, critical age

1. Introduction

According to Hamer and Blanc (2000) the state of linguistic community is that in which more languages are in touch which can be used in the same interaction, and they can influence the language purpose and behavior. Bilingualism can be divided into two words "bi" means two and "lingua" means language, and it can be defined as having two languages for fluent conversation.

According to Requeneud (2009) bilingualism helps in bonding of family because when children learn their parents' both F1 languages they feel near to their family. Improved linguistics skills (skill to learn new words and use information in new ways and improved listening skills. Bilingualism can improve cognitive skills (when children learn more than one language it develops a better cognitive function and through this children can manage working memory) and linguistics skills (ability to learn new words and use information in new ways and improved listening skills)

Fernald (2006) compares monolingual and bilingual child's ability to identify the problem in F1 language and F2 language they have never been exposed to. Renold (1928) and Saunders (1988) argue that bilingualism leads to language mixing and language confusion which causes decrease in IQ and ability to think.

Children's verbal development is the study of language development between the age of 0 to 12 years and in this age the researcher investigates the linguistics knowledge and skill to learn language (Chomsky, 2009). Language development varies among children and they just need to follow a congenital sequence to understand the rules of language. Babies are born to learn and need to be developed environment like warm relationship with their carers (Choi). There are certain milestones which describe the normal language development between the ages of 0 to 8 years. In the age of 2 years child tries to produce and combine simple words and at the year of 3

to 5 they start identification like point out the object and make a story through seeing a picture. At the age of 6 to 8 child becomes a good storyteller and they have a confidence to talk with anyone without any hesitation.

Critical period for language development dates back to the 1950s and 1960s, when first Wilder Penfield and Lamar Roberts (1959) and later Eric Lenneberg (1967) describe the differences between child and adult foreign language learning (Hyltenstem). Critical Period hypothesis is a sensitive frame in which children's minds were able to learn their first language before the age of 12 (beginning of youth).

1.1 Problem statement

Bilingualism causes a speech delay in children because of less vocabulary and knowledge about language. The problem is that the study is limited as it only deals with the children's verbal development at critical age and is critical age important to become bilingual? To identify how bilingualism affects children verbal development (speaking, reading and listening) researcher needs to understand the stages of critical age. Another problem is that the researcher can find the advantage and disadvantages of bilingualism on children's verbal development.

1.2 Research Question:

What are the children's verbal development of pronunciation in critical period?

1. Literature Review

Bilingualism is the ability to communicate in two languages and it is established in the person's mind. Uriel Weinreich is one of the founding father of the word "bilingualism" and according to him, it can be defined as "The alternate study of two languages" (Weinreich). According to Bloomfield (1933) "Bilingualism means native like control on more than one language because those speakers who speak more than one language do not have the ability to talk in two languages at the same time. Bilingualism may be found in speaker of one language who produces complete utterances of other language (Haugen). According to Diebold (2012)

According to Hamer and Blanc (2000) the state of linguistic community in which more than one language is in contact that can be used in same interaction and it can influence the language function and language behavior. Bilingualism can be divided in two words "bi" mean two and "lingua" mean language and it can be defined as having two languages for fluent communication. As it is said by Mackey (2004) "bilingualism is use of two languages by same person".

Bilingualism is a social approach that is used by people who understand second language is either spoken or written form but mostly used in interaction. Being a bilingual means, being equally able to speak two languages smoothly, we consider it as a method of Bloomfield (2009) who defines bilingualism as "to speak two languages and to have no control on each like the native language". Then how a person is proficient in bilingual class. Bilingual persons involve themselves in perception, interaction, and adaptation of linguistics development and systematically change their speech production from mother tongue to foreign language in professional life.

Russian researchers offer the following definitions of bilingualism: "bilingualism (bilingualism) is a fluency in two languages at the same time"; "Bilingualism should be recognized as equally fluent knowledge of two languages. In other words, bilingualism begins when the degree of knowledge of the second language comes close to the degree of knowledge of the first". The following definition of bilingualism is given by VD Bondaletov: "Bilingualism

is bilingualism, that is, the coexistence of a person or an entire nation of two languages, usually the first - native and the second - acquired”.

Valdez and Figueora (1994), bilingualism can be defined in simplest form as “knowing” two languages. Popular definitions of bilingualism conceptualize language knowledge as being a binary category, whether one is classified as having acquired two languages or not (Grant & Gottardo, 2004). However, bilingualism should be thought of as being a continuum where one can have varying levels of proficiency in two languages, regardless of how and when they are acquired. Albert Costa (2019) said “bilingualism is a window into the study of human cognition”.

By Gollan et al (2015) bilingualism is challenging due to the fact that there is significant variability in the environment bilingual children are exposed to and those who acquire two languages simultaneously (learning two languages at the same time) or sequentially (learning one language after the other), creating a wide spectrum of possible bilingual profiles. A child’s language profile is dependent on exposure to and use of each language, including the amount of child-directed speech from caregivers within each language (Gollan et al., 2015).

2.1 Disadvantages of Bilingualism

Bilingual children need more time to understand the vocabulary of two languages and when children try to become bilingual they tend to mix two languages together, such as grammatical rule, syntactic rules, so it’s a slow process (Craik). According to Hoffman (2014) the children at the age of 3 years, communicated almost nonverbally used, use only sign language to get the things. However children need time to understand proficiency of two languages altogether because they need to focus on lexicon, phonetics etc that’s why they take time to speak their first word accurately. Due to language fluency delay children can’t pick either one language. Bilingual children have insufficient competence in either language, also incorrect grammar, small vocabulary or all the time they think about language production (Byrum and Brumfit).

According to Kalkan bilingual children cannot do translation from one language to another due to lexical, semantic and accidental gap and bilingual children have less insight than monolingualism (Kalkan).

According to Ellen (2017) due to continuous changing of language or give superiority to other it may take out the interest of children to become bilingual. Those children who are foreigner, requirement of job they have to give command of one language over the other, native language suffers, very frequently (Ranning). According to Craik (2007) because of their native language is less popular within their group, they sometimes refuse to interact with their parents or anybody else using it. Gasquoine (2016) gives preference to one language on another children have to mix up the two languages, and it can causes tension that is why it is hard to know which language should be used on time.

Bilingual education is more expensive because it runs dominant language programs and reduce intelligence and vocabulary due to bilingualism (Gasquoine). According to Fasold Ralph (2014) bilingual education is too much expensive, it’s cost much more than monolingual education in class. Fernald (2006) compares monolingual and bilingual baby’s cost of education to distinguish between native children and foreign children they have never been exposed to. The reason behind this comparison to see bilingual children hear less speech of one of their native language children because of less resources available due to highly cost.

By Emina Barbik Kolar the issue of bilingualism is currently entertained especially in the areas with the existent ethnic or national minorities. Commonly, instead of learning both languages as their majors, the juvenile bilinguals mandatorily learn a language of a host country, while their arterial language is learned as an elective course. According to Jelaska [p. 135], an early bilingualism is obtained up to the 12th year of age, although the children are acquainted with a language of their ambience even prior to their parturitions, so a child hears a mother's voice and reacts to it.

Bilingual children hear both languages, they do not necessarily receive equal exposure or opportunity to use the two languages, creating a complex language profile that is unique to each individual bilingual child (Grosjean, 2011).

According to Gee Macrory (2021) the children who have to decipher the stream of speech and understand what she is hearing, which perhaps raises the question as to what her interlocutors are doing that might facilitates this. Another task faced during bilingual situation is the creativity of children, who regularly produced new utterances that they clearly have not heard in the input. The other issue that has been raised is progress and development overtime.

2.2 Children's Verbal Development

Children's verbal development is the study of language acquisition between the age of 0 to 8 years and in this age researcher explore the linguistics competence and language learning capabilities (Chomsky). It is a process in which children come to understand and communicate verbally during childhood. Children learn language through listening and listening can help to identify language code but they learn in different stages. Babies are born with ability to hear what is important for speech development and needs to be energized environment as a warm relationship with their caregivers (Choi). Language development varies between children and they just need to follow congenital sequence in order to master the language skills. There are certain milestones described as the normal language development between the ages of 0 to 8 years.

2.3 Critical Age Hypothesis

The critical period for language development began in the 1950s and 1960s, when the first Wilder Penfield and Lamar Roberts (1959) and later Eric Lenneberg (1967) mentioned the differences between children and adults learning foreign languages (Hyltenstem). Critical Period Hypothesis is a ripening or sensitive methodology in which children's minds were able to learn their first language before the age of 12 (beginning of youth).

CPH is often used to differentiate between late and early language learners and to learn specific skills such as pronunciation morphology and syntax. According to CPH, the ability to acquire language is less of a puberty because of a loss of brain neural activity (Contesse). There is a difference between the acquisition of second language by adults and children due to lack of plasticity (Tomlinson). According to Katherine (2009) the year before puberty initiates as a crucial age of linguistic learning. Krashen declines the puberty as the end of critical age because brain lateralization related to language's function that was firmly identified at 5 years of age (Kreshan).

Supporters of bimodal bilingualism often refer to the critical period hypothesis (Lenneberg, 1967), which claims that the first few years of a child's life are crucial for language

development and that delays in exposure to language will negatively affect a person's ability to fully acquire a linguistic system (Newport, 1990; Mayberry, 1993).

Lenneberg argued that language acquisition needed to take place between age two and puberty – a period which he believed to coincide with the lateralization process of the brain. For him, the critical period concept was concerned with the implicit “automatic acquisition” [2, p. 176] in immersion contexts and does not preclude the possibility of learning a foreign language after puberty, albeit with much conscious effort and typically less success. The CPH for SLA states that the ‘susceptibility’ or ‘sensitivity’ to language input varies as a function of age, with adult L2 learners being less susceptible to input than child L2 learners.

By Devilliers (1987) in the age 1 to 9 development of language (L1 or L2) children is taken in critical period of hypothesis. According to Almi and Fingers (1988) CPs can be characterized as being of limited duration within well-defined and predictable termini and as being related to very specific capacities or behaviors. Penfield suggests that “for the purposes of learning languages, the human brain becomes progressively stiff and rigid after the age of nine” (Penfield and Roberts 1959: 236) and that “when languages are taken up for the first time in the second decade of life, it is difficult to achieve a good result because it is unphysiological” (Penfield and Roberts 1959: 255).

Lenneberg further suggests (1967: 142) that the developmental stage on which language acquisition is predicated “is quickly outgrown at the age of puberty”. With respect to L2 acquisition, he asserts (1967: 176) that after puberty “the incidence of ‘language-learning-blocks’ rapidly increases”, “foreign languages have to be learned through a conscious and labored effort”, and “foreign accents cannot be overcome easily”

3. Methodology

In this research, the researchers used qualitative approach to conduct data collection and analysis. We used this method to understand the child's behavior and experience of language learning. In this qualitative research descriptive constructivism paradigm to understand the child's experience in language development was employed. Observation method is based on non-probability techniques and convenient sampling. Observational tables were formed on the basis of recordings. The researcher used overt and indirect observation in this research because it helped researcher to easily conducting or collecting the research.

Convenient sampling technique of participant observation was used for the participants who agreed. The population of this research is school children. A poem (Do not go gentle into that good night by Dylan Thomas) and observation tables based on recording. The total sample size of children was 14. As per the nature of this research study convenience sampling was most suitable for this study.

3.1 Research Procedure

In this research the researcher used the procedure of recording. For finding how children learn their language in critical age researcher used observation method (recording instrument). Recording is based on descriptive method. A poem “do not go gentle into that good night by Dylan Thomas” is used by the researcher to observe the children's language pronunciation and transcription.

3.2 Analysis Techniques

In this study, the researcher used explanatory analysis techniques. For analysis, the researchers made observational sheets to ensure generalizability of results the data were recorded. The data collection is based on the poem that is read by children and the researcher observe their behavior, pronunciation.

3.3 Quality Criteria

Quality criteria is basically used to inherent the quality of research by researcher. Is this quality better to collect the data in research? Is it feasible method? The research data are generalized or not? There are two quality criteria are discussed below.

3.4 Reliability and Validity

Reliability in qualitative research is used for stability of responses to multiple coders of data sets. The researcher used recording method for reliability in research because recording can help the researcher to listen it anytime and observe it. The researcher checked the reliability of data by listening to it again and again. Recordings can make the data reliable. Validity is also very important aspect in quality criteria. It can be checked by the tool that is used to collect data that can assimilate the above explanation with reality.

3.5 Limitation

There are some limitations in this research. First, the study is only deals with children's language development no other like cognitive etc. Second the researcher fixed the time for instance, not more than critical period because researcher thinks after critical age children loss their plasticity to learn any language. Third, the data has been collected physically because of observation and face to face interaction is important.

3.6 Research Ethics

As per the suggestion of Greenfield (2016) when the research was conducted some ethics were followed. In this study all ethical concerns were handled well. First of all, participants were informed and their consent was taken. There is no compulsion on any participant, to provide all information. All participants related to the study were informed about the aim and objectives and nature of study. Researcher provided a consent form to the respondent if they agreed to fill then it is done otherwise there is no coercion. The researchers also provide the necessary level of privacy and confidentially to the respondents.

The poem was selected because it has single syllabic words, rhyme, rhythm and repetition of phrases which make it easy for the children to read.

Transcription of Poem

Researcher transcribed the poem to identify the consonant and vowel sounds and also to analyze which sounds are incorrectly pronounced by children in comparison to the folowing template.

Du: nɒt gəʊ 'dʒɛntl 'mtu: ðæt gɒd nart,
əʊld eɪdʒ ʃʊd bɜ:n ænd reɪv æt kləʊs ɒv deɪ;
reɪdʒ, reɪdʒ ə 'ɡɛnst ðə 'daɪnɪ ɒv ðə laɪt.

ðəʊ waɪz mən æt ðeər end nəʊ dɑ:k ɪz raɪt,
bɪ'kɒz ðeə wɜ:dz hæd fɔ:kt nəʊ 'laɪtnɪŋ ðeɪ
du: nɒt gəʊ 'dʒentl 'ɪntu: ðæt gʊd naɪt.

Gʊd mən, ðə lɑ:st weɪv baɪ, 'kraɪŋ haʊ braɪt
ðeə freɪl dɪ:dz maɪt hæv dɑ:nst ɪn ə grɪ:n beɪ,
reɪdʒ, reɪdʒ ə'ɡenst ðə 'daɪŋ ɒv ðə laɪt.

Waɪld mən hu: kɔ:t ænd sæŋ ðə sʌn ɪn flɑɪt,
ænd lɜ:n, tu: leɪt, ðeɪ grɪ:vd ɪt ɒn ɪts weɪ,
du: nɒt gəʊ 'dʒentl 'ɪntu: ðæt gʊd naɪt.

Grev mən, nɪə dæθ, hu: sɪ: wɪð 'blaɪndɪŋ saɪt
blaɪnd aɪz kʊd bleɪz laɪk 'mɪ:tiəz ænd bi: geɪ,
reɪdʒ, reɪdʒ ə'ɡenst ðə 'daɪŋ ɒv ðə laɪt.

ænd ju:, maɪ 'fɑ:ðə, ðeər ɒn ðə sæd haɪt,
kɜ:s, bles, mɪ: nəʊ wɪð jɔ: frɪəs teəz, aɪ preɪ.
Du: nɒt gəʊ 'dʒentl 'ɪntu: ðæt gʊd naɪt.
Reɪdʒ, reɪdʒ ə'ɡenst ðə 'daɪŋ ɒv ðə laɪt.

In this poem there are multiple vowels and consonant sounds. In the first stanza there is repetition of consonant /g/ in gentle, good, rage, and vowel /o/ in old, good, do, go and /i/ in into, night, light. In the second stanza there is repetition of vowel /o/ in though, forked, no and good. In the third stanza there is repetition of vowel /a/ and /e/ in deeds, wave, danced, green, bay. In the fourth stanza repetition of consonant /w/ in way, wild, who and vowel /a/ in caught, sang, and. In the last stanzas there is repetition of /i/ in sight, blind, like, light, with and /e/ in meteors, eyes, bless and tears. In every stanza first and last line have rhyming sounds like night, light, height, bright, flight and sight.

Table 1 showing patterns of deviation of mispronounced sounds from source pronunciation			
Sr no	Correct sounds	Distorted sounds	Analysis in term of L1 interference
1	/dʒ/	/gh/	Gentle pronounced as ghentle in which /gh/ is an Urdu sound.
2	/əʊ/, /k/	/ou/, /u:/, /s/	Close pronounced as “slose” in which /s/ is an Urdu sound.
3	/eɪ/	/a/, /æ/	Rage in which /eɪ/ sound pronounced as Urdu /a/ sound.
4	/aɪ/	/eɪ/, /ɛ/	Wild pronounced waild that is diphthong.
5	/ð/	/tho/, /θ/	Though pronounced as through in which /tho/ is an Urdu sound.
6	/ɒ/	/a/	Because pronounced as Bacas in which “a” is an Urdu sound.

7	/t/	/ad/,/d/	Forked pronounced as forkid, forkad in which “d” is an Urdu sound.
8	/i/	/ə/,/ɑ:/,/y/	Prey pronounced as pary in which /y/ sound is an Urdu sound.
9	/s/	/z/	Bless pronounced as blaze in which /z/ sound is an Urdu.
10	/i:/ /g/	/eɪ/,/æ/,/j/	Grieved pronounced as jarieved in which /j/ is an Urdu and long vowel used as short vowel.
11	/ε/	/i: /	Death pronounced as di:th in which “ea” sound is used as “i:” long vowel sound.
12	/εn/	/en/	Against pronounced as agenist.
13	/g/	/silent/	Light, night, bright pronounced as litig, nigit, Brigit.

Totals errors of children’s pronunciation =54

Total consonant mispronounced=24

Percentage= 44.44%

Total vowel mispronounced=30

Percentage=55.55%

Table 5 shows that due to L1 interference the children were unable to understand silent words (elision). From this table the researcher noticed that the child’s L1 (Urdu) have some influence on L2 (English). Children did negative language transfer when they pronounced the words. The researcher’s overall analysis is that children did errors in vowels sounds.

5. Conclusion

The findings were very much close to the research questions. We did a cross-sectional study of development. However, a longitudinal study could be more informative, but it would be too time consuming. Cross-sectional study was chosen because of time constraints. When a child is proficient in target language and has to appear as a bilingual person, it can help them to enhance their cognitive and speaking ability to learn third or fourth language’s culture and tradition also.

It was observed that children’s verbal development (pronunciation) is affected by children’s negative language transfer. Because when the data was analyzed the children used the knowledge of their Urdu language while reading activity in English language. Like the sound of “g” in gentle were pronounced as “gh” sound that shows their language transfer. Children also pronounced silent words. In the poem there are 54 total errors done by children in which 24 consonants and 30 were vowels. Their percentage of total consonant mispronounced were 44.44% and percentage of total vowels mispronounced were 55.55%.

This attempt to explore the effects of bilingualism on children based on their critical period finds negative impact of L1 transfer. Bilingualism is good for children but it also has some disadvantages that we cannot ignore. The observations recording instrument method is used to check children’s bilingual pronunciation development which finds serious concerns about L1 transfer and limitations of pronunciation of L2.

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