Research paper Bilingual versus Monolingual development

Motivation:

Throughout the past century, our world has become more connected than ever before. The amount of international conversion and multicultural integration in many nations has skyrocketed. In the United States alone, 21% of school-age children (between ages 5-17) speak a language other than English at home. As a result, the ability to speak two languages or more has become a desirable skill in employees. Due to the the belief that children of bilingual households have an almost unfair advantage over monolingual children, many parents consider a bilingual upbringing. As many know, children, who grow up learning to speak two or more languages, build a different set of neural connections compared to a monolingual. In the eyes of many parents, this is often interpreted as a positive trait.

However, how does learning two languages simultaneously actually affect the normal development process of a child? Does a bilingual upbringing always result in an advantage over monolingual children? Or are there disadvantages that are being overlooked? If there are disadvantages to growing up bilingual, are they life long, or only for a specific period?

These questions are the inspiration for my research paper into the comparison of the development, advantages, and disadvantages of a bilingual versus a monolingual development for a child.

Definitions of Bilingualism:

The Definition of Bilingualism is vital for this research. If we use Bloomfield's definition from 1935 of Bilingualism being a person who can speak two languages perfectly, the number of people that would fit that definition would be but a sliver, seeing as it is practically impossible to be perfect in two languages. After all, most monolinguals do not perfectly master their one language. Macnamara, in 1967, on the other hand, defined a bilingual as anyone who possesses a

minimal competence in speaking or listening or reading or writing. This definition is too open for our research, as so many people fit within this category without this second language profoundly changing their way they would think or learn compared to monolinguals. Therefore, a middle ground must be found. For the intent of this Research paper I would like to define Bilingualism as an individual's capacity and ability to follow the concepts and structures of language, other than paraphrasing from the mother tongue (Titone 1972). Also, to consider is a definition with a more sociocultural perspective, which is one's ability to meet communicative demands in society and interact with other speakers in two or more languages (Mohanty 1994). To research the cognitive and linguistic development of bilinguals compared to monolinguals, we will mostly be focusing between early childhood and adolescence, since the sensitive period to learn a language ends at around age nine and most start to learn a second language in school soon thereafter.

Theories and Myths:

During the 1960s, many believed that if children learned two languages simultaneously, they would suffer from cognitive confusion and have major problems in language acquisition later. This occurred for one because tests for cognitive efficiency between monolinguals & bilinguals were taken in the monolinguals language, which is not always the dominant language of the bilinguals being tested (Cummins 1981). As a result parents were advised to educate their children in only one language, before introducing the second. However, there was no scientific evidence to prove this common belief.

Though incorrect, this myth was not without its truths. In 1992, Ricciardelli developed the threshold hypothesis, which suggested that "a certain age approximate proficiency in both languages is needed before it can promote cognitive development," otherwise there are neither benefits nor deficits of the second language. The same concept is seen in the theory of Linguistic Transfer. This theory relies on the idea that the first language (L1) and the grammatical

knowledge acquired therewith are used to promote the learning of the second language (L2). This idea is, however, dependant on language differences and language structure. If, for instance, the two languages being learned have a Latin-based alphabet and structure, then the Linguistic Transfer between L1 and L2 will be much stronger than between two languages with different alphabets or wideley different language structures. However, for Linguistic Transfer to work, the person needs to have gained a high level of literacy in L1 in order for it to be used as a foundation for skill Transfer to L2 (Cummins 1991, 1996). If, however, both L1 and L2 are underdeveloped, a transfer will not occur.

Benefits:

Bilingualism has been proven to have many benefits. The most obvious being its effectiveness when bridging cultural gaps. Taking into account how the world has become so internationally connected, it has become a vital part of our business world to be knowledgeable in more than one language. Considering, about 60% of the world's population speak two or more languages, monolinguals have become a minority in the population. However, one must consider that many only learn a second language within a school setting. Learning a language in an academic setting is different from learning them through interaction and confrontation within society. Therefore, children who grow up in a bilingual household are still mostly a minority in schools today. For this reason, it is crucial to be precise on the Definition of Bilinguals when researching this topic.

Metacognitive advantages

Young bilinguals are found to possess many metacognitive advantages over their monolingual peers. One of the most common observed benefits of Bilingualism is a stronger metalinguistic awareness. "Young bilinguals and monolinguals were given a series of sentences to decide on their grammatical acceptability. They were asked to notice and explain any grammatical violations in grammatical sentences with distractive words that may cause confusion, such as 'why is the cat barking so loudly' and 'apple grows on noses.' Bilinguals were able to identify semantic

acceptability in these sentences better than monolinguals." (Bialystok 1987, 2001a) (source 1)

The bilingual develops the ability to reflect on aspects of a language much earlier than monolinguals. Metalinguistic awareness is also known as analysis of representation, which is the ability to think, analyse and inwardly reflect on formal aspects of language (Baker & Jones, 1998; Adesope, Lavin, Thompson, 2010; Byalistok, Majumaer & Martin, 2003).

However, "Metalinguistic awareness cannot be regarded as a bilingual-specific effect because people's ability to analyse language tends to improve when their language proficiency and acquisition of literacy improve (Byalistok 1988)". In other words, Metalinguistic awareness is developed quicker in bilingual children. However, monolingual children catch up when older, so they have relatively the same ability once they have reached high school age. The reason for this stronger linguistic sensitivity in bilinguals is their exposure to two languages and their different structural aspects, unlike monolinguals, who are only exposed to one (Bassetti, 2007a, 2007b; Klein 1904).

Bilinguals also show a stronger control of attention in their language (Cumming & Muldayi 1928) and non-language processing (Byalistok, 2006). Other benefits that have been found in bilingual speakers are: a stronger ability in problem solving (Baddeley 1996), inhibitory control in languages and working memory capacity (Engle 2002), and strong executive control and processing through switching between two languages (Byalistok 2007; Byalistok & Viswanthan, 2009, Byalistok 2010). In other words, the bilingual can switch between both languages easily. These can be most easily recognized through testing. For example, research done by Weiten in 2019, showed that bilingual Pre-schoolers tended to score higher on IQ tests in the areas concerning cognitive flexibility, analytical reasoning, selective attention, and metalinguistic awareness than their monolingual peers. This does not mean, however, that bilinguals are smarter than monolinguals. It merely means that they have a stronger development in certain linguistic dependent areas at a young age.

It is also common for bilinguals to use vocabulary from one language in the other, which is known as Code-switching. Code-switching is one of the reasons for the myth about linguistic confusion, which was mentioned earlier. However, whether this ability is a positive or negative trait is disputed. Some claim that bilingual children recognize that the vocabulary belongs to the other language. In my personal experience as a bilingual and in conversation with others who were raised bilingually, I have heard and experienced multiple occasions in which a word from on language was so internalized, that one did not realize it was part of a different language. For example, when I was younger, my mom would call us to eat with the phrase "Essen kommen." For the longest time, I was convinced it was something she had made up, or it was some secret code for us to eat. Only in fifth grade did I realize that the phrase was German for "Come eat". Similarly a friend of mine who grew up with German and French explained to me that she did not consciously realize that French and German were two different languages until she was in third grade. Also, Code-switching often occurs as a result of being momentarily unable to access the word needed in the language used. Code-switching does not inhibit semantic development, which is the acquisition of words, their meanings, and the links between them. However, it can prove to be an issue when a child is confronted in an academic setting. Most classes do not allow bilingual children to freely look up words they are momentarily unable to remember.

-

Deficits:

Though many researchers claim there are no deficits to being bilingual, there are some issues that bilinguals must face when set in a monolingual schooling environment.

First of all bilinguals often are slower in verbal and semantic fluency, speech production, and picture naming (Gollan, Montoya, Fennema – Notestine & Moros 2005), solving word problems in maths is slower (Kempert 2011), as well as being able to lexical access and receptive vocabulary, which is understood as the body of words that a person understands and recognizes

well enough to comprehend when listening or reading (Byalistok, Craik & Luk 2008; Ivanna & Costa 2008). As an example, in the research of Sandoval et al. (2010), it was found that bilinguals had a fluency disadvantage, fewer correct answers, slower response time proportionally delayed retrieval relative to monolinguals. Summarized, bilinguals lag behind monolinguals in specific areas of language use. Particularly in situations where skills are assessed in only one language, bilingual children often are at a disadvantage since it takes them longer to read through and process the language that the test is being administered in (Ransdell & Fischler 1987; Oller & Gilers 2002). This often leads to bilingual children having a harder time in traditional academic settings since most courses will require them to use the language of their monolingual peers.

If the two languages the child is learning are mostly different in grammar and vocabulary, a negative linguistic transfer is possible. This means that the child may have issues in grammar and vocabulary in one language due to the interference of the grammar structures from their other language (Das 1985, Mohan & Au-Yeung, 1985). Due to the interference of a second language, it often takes longer for bilingual children to reach the same strength in one specific language compared to their monolingual peers, but their "Language processing speed will usually catch up to monolingual peers" ((ASHA) American Speech-Language-Hearing Association).

Development:

'Despite what I originally believed, my research has shown me that "bilingual children develop language skills just as other children do" (learning two languages, 2001 p.2). Bilingual children may show a slight delay in their language development, but it is all still within the typical window of linguistic development. Just as monolinguals, most bilingual children will speak their first words by age one, and two-word phrases by age two. It is important to remember that when one compares a bilingual child's development with that of a monolingual, one needs to remember that the sum of words a monolingual child knows must be compared to the vocabulary of both

languages known by the bilingual child. Bilingual children may mix words or grammar structures from both languages, but, as mentioned earlier, this Code-switching is a natural part of a bilingual's speech development. It does not mean that they are lagging in their language development.

Problems and Solutions for Bilingual Children:

If you have a bilingual child or are planning on raising your child in a bilingual setting, there is some helpful advice you should pay attention to. The most crucial part about raising a bilingual child is to do what seems most comfortable for the parent. If the parent does not speak a language well, they should not try to teach it to the child. This type of flawed learning will not help the child successfully acquire the language. It is not recommended for monolingual parents to try and teach their children a language they are not strongly familiar with themselves. There are two forms of learning two languages. The child can either learn both languages simultaneously or sequentially. Either option does not cause any developmental issues for the child. Most bilinguals will tend to have a dominant and less dominant language. Which one is dominant can change over time. If you speak one language in the home, while another language is spoken in school, the language spoken at school can likely become the language the child becomes most dominant in. At this time it is important to make sure you provide a space for both languages to be used in order to ensure that neither regresses. When a child is first introduced to a second language, they may likely have a silent period. This is normal and is not a point for concern. It is vital that, when trying to teach a child a second language, one does not entirely stop speaking the other, already known language, in order to ensure that one does not cause emotional or psychological stress for the child. Instead, the parents must try to maintain a balance between the two languages. Providing reinforcement to children will help them to continue using both languages. "Speaking two languages is like any other skill. To do it well,

children need lots of practice, which parents can help provide" (Learning Two Languages, 2001 p. 2).

If a child does not meet the development language milestones in both languages, it may indicate that a language delay or disorder is present. If you suspect such, consult a speech-language pathologist. As a guideline, Roseberry McKibbin stated, "if a student has normal abilities in the primary language and is having difficulty with English, this student does not need special education remediation services such as speech-language therapy. Rather, the student needs other services, such as bilingual education, to facilitate English language learning". The only reason a bilingual child would need to be provided with speech and language services is if the child has delays in both languages (Houwer, 1999).

Sources:

Author unknown. "7 Myths and Facts About Bilingual Children Learning Language." *American Academy of Pediatrics and American Speech-Language-Hearing Association*, 19 May 2017, https://www.healthychildren.org/English/ages-stages/gradeschool/school/Pages/7-Myths-Facts-Bilingual-Children-Learning-Language.aspx.

Blom, Elma, et al. "Cognitive Advantages of Bilingual Children in Different Sociolinguistic Contexts." *Frontiers in Psychology*, Frontiers Media S.A.; US National Library of Medicine National Institutes of Health, 21 Apr. 2017, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5399246/.

Gauthier, Charlyne. "Language Development in Bilingual Children." *Research Papers Graduate School* , Southern Illinois University Carbondale OpenSIUC , May 2012, https://opensiuc.lib.siu.edu/cgi/viewcontent.cgi?article=1268&context=gs_rp.

Hanen, Lauren Lowry. "Bilingualism in Young Children: Separating Fact from Fiction ." *The Hanen Centre*, The Hanen Centre, 2016, http://www.hanen.org/Helpful-Info/Articles/Bilingualism-in-Young-Children--Separating-Fact-fr.aspx.

NG, Elaine. "Bilingualism, Biliteracy and Cognitive Effects: A Review Paper ." *University of Sydney Papers in TESOL* , The Chinese University of Hong Kong, 2015, http://faculty.edfac.usyd.edu.au/projects/usp_in_tesol/pdf/volume10/Article04.pdf.2)