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The Bilingual Mind

 In our modern world, English transcends its native countries and has become the intermediate language for communications around the world. Because the United States is so strongly Anglophone, it has never had a need to learn and appreciate foreign languages. The school systems treat language classes as secondary to the core curriculum (science, math, etc.) —not essential, though certainly nice. This approach is not only flawed, but it is detrimental to the education of American children. According to the current theories on second language acquisition, schools in the United States teach languages at exactly the wrong time (if at all) and exclude children from all the benefits that extend beyond pure communication. Certainly as our society becomes increasingly globalized, it’s extremely important, even necessary, for us to reach outside our English comfort zone and speak at least one other language. But beyond that, being bilingual comes with numerous advantages and immeasurable benefits—ones that the school systems have neglected to acknowledge and actually hinder the academic progress of their students.

 One of the first issues that presents itself when discussing the concept of bilingualism is its very definition. There has been much debate over what the definition of bilingualism should actually be. In Katje F. Cantone’s book on bilingual code-switching (the ability to switch between languages at will), she describes several proposed definitions: one is a general description brought up by Genesee saying that “bilingual acquisition [is] the simultaneous acquisition of more than one language during the period of primary language development.” Another definition, proposed by Grosjean, is “people who need and use two (or more) languages in their everyday lives.” But no matter the definition, one thing is certain: bilinguals are unique. They cannot be thought of simply as “the sum of two monolinguals” (Cantone). The most popular concept that appeared in numerous sources was the idea that bilingualism is best described as a continuum, where on one end is a “native-like control of two languages” (Bloomfield, qtd in Cantone) and at the other is the merely the ability to relay a message to another person in the second language, (L2) (Cantone).

 There are many criteria that influence a bilingual’s position on this continuum. One of the most important factors in determining fluency is the age of L2 acquisition. The critical period hypothesis (CPH) states that the best time to learn a language is after the age of one and before puberty. During this time, children will almost invariably become fluent without requiring any extra instruction other than long-term exposure to multiple languages. However, the closer the child gets to adolescence, the harder it becomes for this ease of fluency to be accomplished (Hagen 45). The most famous study to prove the importance of age in language acquisition was done by Eric Lenneberg on children with traumatic brain injuries resulting in aphasia. According to Dictionary.com, aphasia is the “loss of a previously held ability to speak or understand spoken or written language, due to disease or injury of the brain.” Lenneberg discovered that children who developed aphasia under the age of eight almost always made a full recovery and were able to speak fluently and resume a normal life. Above that age, the results were less impressive, but still significant as a majority of children made a full recovery (Hagen 46). Since then, studies have shown that the recovery rate of full language ability in children is typically in the range of seventy-five to one hundred percent, while in adults, it is more often than not is between twenty and fifty percent (45).

 But what about the cases of children who had never been exposed to language in the first place? The most famous of these was the victim of abusive parents, a girl code-named Genie, who, for the first thirteen years of her life, was left in almost complete isolation. When she was finally discovered, she went through extensive speech therapy in addition to her psychological treatment, and while she made great improvements in many areas of her cognitive functions, speech was not one of them. Though she was able to learn some things, she remained somewhat inept in her language abilities (Hagen 47). In a similar situation, a girl named Isabelle was discovered at the age of six instead of thirteen. She was able to master sufficient linguistic skills needed to communicate after only two years of therapy, and after that point, could live a normal life (47). These cases were perfect examples of the CPH as Isabelle, who was within the critical period window, was able to speak her acquired language fluently in a very short period of time, whereas Genie, at the age of thirteen and in the extremities of this window of opportunity, could not extend her skills beyond a certain point. Interestingly enough, the CPH also applies to sign languages, not just the spoken dialects. Newport did a study on people who acquired American Sign Language (ASL) beginning at birth, between the ages of four and six, and sometime after puberty. Not surprisingly, the first category was completely fluent, while those who learned ASL after puberty struggled somewhat in their signing. Those who learned ASL within that critical period fell somewhere in the middle (47).

 In addition to the CPH, it is important that children learn the L2 from a native speaker. This allows them to better mimic pronunciation and intonation and speak fluently without an accent (Abbott). It also helps avoid mispronunciation and future confusion in the linguistic portions of their brains if they don’t have phonemes, or “the set[s] of speech sounds that serve to distinguish one word from another” (“phoneme”), of one language influencing the speech production of another, as would be the case in a non-native speaker (Lieven). Equally as important as learning from a native speaker is the long-term usage of the acquired language. In an interview conducted by Duke University with Therese Sullivan Caccavale (president of the National Network for Early Language Learning), she expressed that longer language sequences in school lead to better results and higher retention rates. I myself can attest to this fact, since my mother, a native speaker, taught me Italian and English from birth, and I studied French for five years under my school’s system. In Italian, I can speak primarily without an accent and consider myself conversationally fluent without having any knowledge of the grammar behind my thoughts, while in French, I know all the rules but speak with great difficulty and a noticeable accent. With this experience from both sides of the critical period, I can say with certainty that long-term exposure is crucial to language retention, regardless of the CPH. Since my mother stopped speaking to me in Italian around the age of two or three, I have always struggled to maintain my Italian skills. The only thing that truly helps is to continually find opportunities for practice. I visit Italy every summer, where I am completely immersed in the language and I find my language become more fluent as time goes on. And with the recent development of Facebook, Skype, and other popular communication mediums, I have the opportunity to talk to family and practice the language throughout the year without having to travel. With French, it is very similar. I stopped taking classes when I finished the course sequence (which was actually shorter than usual because I skipped a level) and since then have had practically no opportunity to practice. Whenever I do have to write or speak, it’s with a significant amount of difficulty. It has quickly become apparent that maintaining a language is like staying in shape, except it’s your brain that needs the exercise, not the body.

 The continuum model, however, is not perfect. There are too many variables that can influence a person’s bilingual ability for it to be charted in such a linear fashion, including speaking, reading, writing, comprehension, and grammar, among other factors (Crystal 413). Some interesting cases of bilingualism, though not uncommon, include so-called “dormant bilinguals” who know a second language but haven’t used it in a long time, and whose abilities have since atrophied, but not disappeared completely. There are also people who can understand and/or read, but not speak or write, a language. There are so many degrees of bilingual ability that it makes it very hard to define with one simple idea, but the continuum concept comes the closest by far (Crystal 412).

What it aims to express is that there really is no such thing as perfect fluency. Very few possess such a mastery of one language, let alone two. Moreover, bilinguals tend to be dominant in one language over another, though there are always the exceptions to the rule. According to Crystal, “The vast majority of bilinguals do not have an equal command of their two languages: one language is more fluent than the other, interferes with the other, imposes its accent on the other, or simply is the preferred language in certain situations” (412). Once more, I have plenty of experience in this area. Because I lacked the intense, long-term exposure needed throughout my childhood for my Italian to mature to that ideal level of native-like fluency, eventually my English started to interfere. There are times when I speak completely without accent in Italian, and others when my American accent slips through the cracks. I’ve noticed that this occurs most often when I’m hesitant or unsure about what I want to say. This could easily be fixed, I think, by strengthening my Italian skills and gaining the confidence needed to overcome that. This goes right along with this idea of the continuum in that if you change the dominance of one language over another, you change the bilingual’s position on it.

Based on these criteria for second language acquisition, the American school systems are inherently flawed in their system of foreign language instruction. Typically, foreign language classes are introduced in junior high or high school—precisely after the critical period window has closed. Already the students must fight an uphill battle to become proficient. Combine that with the fact that the instructors, though presumably qualified, are not always native speakers, students who might’ve fallen in the correct window of time won’t have a chance to gain accurate pronunciation and intonation. On top of this, the sequence of courses must end. Language instruction doesn’t last forever. There’s really no opportunity to speak outside of class. Anything a student learns is quickly forgotten and those few years of language instruction go completely to waste. With this in mind, schools should invest in longer course sequences that begin as soon as possible in order to maximize language acquisition during the critical period.

 Interestingly enough, bilingualism may actually have some consequences. There is debate over this issue, with some saying that there have been no proven disadvantages while others claim there are. One such claim made by Tamar Gollan, a professor at the University of California, San Diego, is that the simultaneous acquisition of two languages actually hinders vocabulary growth, and that while the difference between monolinguals and bilinguals diminishes as the bilinguals mature, the gap never fully closes. He explains that "[v]ocabulary tests, SATs, GREs--those are tests that probe the absolute limits of your ability, and that's where we find that bilinguals have the disadvantage, where you know the word but you just can't get it out" (qtd in Schwartz). While Gollan may have proof to support this claim, it’s also important to note that second languages might actually be helpful in the vocabulary setting. In my experience, knowing certain additional languages like French and Italian can be a useful tool because of the languages’ origins. They are both Latin-based languages, and since a significant portion of English words are also Latin-based, knowing those word roots can help give a sense of the word’s meaning. It doesn’t give an accurate definition, and there is always the concern for false cognates, but at least it’s a hint that monolinguals don’t get. As far as the SAT and other challenging vocabulary tests go, this might be useful but the tests, specifically the SAT, also put forth similar definitions from which to choose, and in this case, only pure vocabulary knowledge can help. In this way, according to Gollan’s research, bilinguals would surely be at a disadvantage. But Gollan also mentions this idea of having a word on the tip of your tongue that you can’t quite grasp. I have absolutely found this to be the case, and in talking with other bilinguals, have found that they agree. It might have to do with the concept of object permanence. Caccavale in her interview explains that “[b]ilingual students learn sooner that an object remains the same, even though the object has a different name in another language. For example, a foot remains a foot and performs the function of a foot, whether it is labeled *a foot* in English or *un pied* in French.” So it could be that when a bilingual person wants to express an idea, his or her brain gets caught up in trying to decide how to define it, since it understands quite well that objects have no one true name.

 These disadvantages pale in comparison to the benefits that being bilingual can bring and should in no way deter anyone from pursuing another language. Many benefits, however, are reserved for those who acquire their L2 within the critical period described earlier. Bilingualism can have tremendous impact on the mental development of children. Caccavale explains that “foreign language learning is much more a cognitive problem solving activity than a linguistic activity, overall.” The general flexibility of mind offered by childhood language instruction leads to higher critical thinking skills and creative abilities in children. In fact, recent research shows that bilingual children outperform others in both verbal and surprisingly mathematic standardized testing, even in cases where language instruction took time away from learning math (Caccavale).

 The reason behind this heightened mental flexibility is the sheer amount of effort the brain has to put forth in order to function with two different languages. For example, my two main languages that I use most often are English and Italian. When I’m speaking English, it doesn’t mean that only the English portion of my brain is lit up and working. In fact, both languages are constantly turned on and in use and it’s up to the brain to sort through everything and decide what’s relevant. This function is called the executive control system. It acts as a filter, choosing what’s important and ignoring what’s not. So in a strong bilingual who truly uses two languages often, this system is constantly working, making the brain just a little bit more “fit” than someone who only has to contend with one language (Cuda-Koen).

 Because the bilingual brain is so “in shape” regardless of the age of L2 acquisition, there is one other impressive benefit that people don’t usually guess. Multilingualism can actually delay the onset of Alzheimer’s. Speaking a language, especially more than one, is a constant learning process, and combined with the extra exercise gained from the executive control function, it “keeps the brain actively engaged” (Stewart). And of course there’s always the invaluable lifetime benefits that don’t depend on the CPH and can be enjoyed by anyone and everyone who commits to learning a second language. It opens the doors to countless opportunities in life. It’s always something impressive for employers when they’re looking to hire, and it provides the flexibility for you to work all over the world. You can travel and enjoy new places without being separated by the menacing language barrier that can inhibit a full cultural experience. It allows you to “inherit a global consciousness that opens the mind to more than one culture or way of life” (Schwartz). Truly, the world is your oyster.

So how does one go about becoming bilingual? Many of these benefits are accessible to anyone, regardless of age, so it’s imperative that people take advantage. One of the most common ways to learn a second language as a child is through a parent who is a native speaker, but if that’s not readily available, nannies can be another option. Studying abroad is often the most efficient, if challenging, way to learn. As a child, this would ensure the gain of developmental benefits and avoid the annoying accent. As an adult, even though there would be no developmental benefits and an accent would most likely be present, it is the best and quickest way to learn a language. But packing up and going off to live in a foreign country is usually not a feasible option, and because of this, immersion schools are quickly becoming more and more popular. There are currently 440 elementary schools in the United States offering bilingual instruction (Schwartz). According to Ken Stewart, the 2006 ACTFL (American Council on the Teaching of Foreign Languages) National Language Teacher of the Year, “it’s the next best thing to study abroad.” Children gain all the cognitive benefits of critical period L2 acquisition and actually perform better in their core curriculum classes. One recent study conducted in 2007 in Harwich, Massachusetts showed that foreign language students outperformed their monolingual peers on the state standardized test after only two to three years of sequential instruction, and significantly outperformed them in all subtest areas after seven to eight years (Caccavale). The “immersion programs are effective because they use second language acquisition as the vehicle for learning the general education curriculum…and [maximize] the instructional time by accomplishing two goals at once: language acquisition and content learning” (Abbott).

The traditional American school system should learn something from the immersion schools. The core curriculum classes would not have to be instructed in a foreign language, but at the very least, schools should begin language instruction as soon as possible in order to help their students as much as they can. It’s even beneficial to the school itself, since children would perform better in all of their classes, which would in turn reflect well on the school itself. Ideally, only native speakers should teach these language classes, but in reality, this isn’t a practical solution. The next best thing would have to be teachers with accurate pronunciation and a reasonable attempt at intonation as determined by a native speaker. This puts more pressure on foreign language teachers, but in the end, it will be much more beneficial to the students. And even though language instruction would begin so early, it should naturally continue longer. It might resemble how English classes are taught, with children learning grammar, spelling, and vocabulary from Kindergarten to junior high and then transition into writing, composition, and literature courses as students became more advanced, with cultural lessons woven throughout.

As more efficient language instruction was put in place, children would learn to be citizens of the global society we live in, and might even begin to challenge some social prejudices we have now regarding foreign language and immigrants. It would force them to open their eyes and see the world from a different perspective in a very subtle, but powerful way. In particular, the new language system would benefit each individual with more extensive mental development and higher performance in regular classroom instruction, as well as delay the onset of such a debilitating disease as Alzheimer’s. And this could all be accomplished simply by a reorganization and reprioritization of language instruction in America. In the end, the whole world would be better off for the better system.

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