



Why It's Smart to Be Bilingual

The brain's real super-food may be learning new languages.

BY CASEY SCHWARTZ



ON A SWELTERING August morning, in a classroom overlooking New York's Hudson River, a group of 3-year-olds are rolling sticky rice balls in chocolate sprinkles, as a teacher guides them completely in Mandarin.

This is just one toddler learning game at the total-immersion language summer camp run by the primary school Bilingual Buds, which offers a year-round curriculum in Mandarin as well as Spanish (at a New Jersey campus) for kids as young as 2.

Bilingualism, of course, can be a leg up for college admission and a résumé burnisher. But a growing body of research now offers a further rationale: the regular, high-level use of more than one language may actually improve early brain development.

According to several different studies, command of two or more languages bolsters the ability to focus in the face of distraction, decide between competing alternatives, and disregard irrelevant information. These essential skills are grouped together, known in brain terms as "executive function." The research suggests they develop ahead of time in bilingual children, and are already evident in kids as young as 3 or 4.

While no one has yet identified the exact mechanism by which bilingualism boosts brain development, the advantage likely stems from the bilingual's need to continually select the right language for a given situation. According to Ellen Bialystok, a professor at York University in Toronto and a leading researcher in the field, this constant selecting process is

strenuous exercise for the brain and involves processes beyond those required for monolingual speech, resulting in an extra stash of mental acuity, or, in Bialystok's terms, a "cognitive reserve."

Bilingual education, commonplace in many countries, is a growing trend across the United States, with 440 elementary schools (up from virtually none in 1970) offering immersion study in Spanish, Mandarin, and French, in that order of popularity.

For parents whose toddlers can't read Tolstoy in the original Russian, the research does offer some comfort: Tamar Gollan, a professor at University of California, San Diego, has found a vocabulary gap between children who speak

only one language and those who grow up with more. On average, the more languages spoken, the smaller the vocabulary in each one. Gollan's research suggests that while that gap narrows as children grow, it does not close completely.

The rule of thumb for improving in any language is simple practice. "The more you use it, the better off you are," Gollan says. "Vocabulary 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."

Gollan believes this deficit can be compensated for with extra study. A more complicated question is how and whether bilingualism may interact with other cognitive issues that can appear in early childhood, specifically attention disorders, says Bialystok. Because attention-deficit/hyperactivity disorder (ADHD) is linked to compromised executive functioning, it is unclear what impact learning a second language—which calls upon exactly these executive skills—might have on children with this condition. Research on this question is underway.

Some of the most valuable mental perks of bilingualism can't be measured at all, of course. To speak more than one language is to inherit a global consciousness that opens the mind to more than one culture or way of life.

Bilinguals also appear to be better at learning new languages than monolinguals. London-based writer Clarisse Lehmann spent her early childhood in Switzerland speaking French. At 6, she learned English. Later she learned Spanish, German, and, during three years spent living in Tokyo, Japanese.

"There's a witty humor in English that has a different sensibility in French," she says. "And in Japanese, there's no sarcasm. When I tried, it would be 'We don't understand what you're trying to say.'"

With five languages under her belt—and a working familiarity with Latin and Greek as well—Lehmann finally considers herself sufficiently multilingual. "Enough, enough!" she says. "I don't want to learn any more languages." **NW**