

Brain's real super-food may be learning new languages

By Casey Schwartz, Newsweek

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.

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