

学外语真的可以让你更聪明

题目：The benefits of a bilingual brain

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¿Hablas español? Parlez-vous français? 你会说中文吗? If you answered, "sí," "oui," or "会" and you're watching this in English, chances are you belong to the world's **bilingual** and multilingual majority.

你会说西班牙语吗? 你会说法语吗? 你会说中文吗? 如果你回答 "sí" "oui" 或"会" 而且用英文观看这视频, 你很可能是属于这世上双语或多语的大多数之一。

And besides having an easier time traveling or watching movies without subtitles, knowing two or more languages means that your brain may actually look and work differently than those of your **monolingual** friends. So what does it really mean to know a language?

除了在旅行或观看没有字幕的电影时可以更轻松之外, 懂得两种或更多的语言意味着你的大脑实际上可能与你的单语朋友的大脑在外观和工作方式上有所不同。那么, 了解一种语言的真正含义是什么?

Language ability is typically measured in two active parts, speaking and writing, and two passive parts, listening and reading. While a balanced bilingual has near equal abilities across the board in two languages, most bilinguals around the world know and use their languages in varying **proportions**. And depending on their situation and how they acquired each language, they can be classified into three general types.

语言能力通常以说和写二个主动部分, 和听和读二个被动部分来衡量。平衡双语的人, 两种语言的掌握能力是接近的。世上大多数的双语者, 以不同的比例了解和使用他们的语言。根据他们的状况和每个语言不同的掌握, 双语者可以分成三种类型。

bilingual

adj. 熟悉两种语言的 (人)

monolingual

adj. 单语的

proportion

n. 比例, 部分

For example, let's take Gabriella, whose family **immigrates** to the US from Peru when she's two-years old. As a compound bilingual, Gabriella develops two linguistic codes **simultaneously**, with a single set of concepts, learning both English and Spanish as she begins to process the world around her. Her teenage brother, on the other hand, might be a coordinate bilingual, working with two sets of concepts, learning English in school, while continuing to speak Spanish at home and with friends. Finally, Gabriella's parents are likely to be **subordinate** bilinguals who learn a secondary language by filtering it through their primary language.

例如，让我们以加布里埃拉为例，她的家人在她两岁时从秘鲁移民到了美国。作为复合型双语，加布里埃拉同时发展两种语言代码，有一套单一的概念，在她开始处理她周围的世界时同时学习英语和西班牙语。另一方面，她的十几岁的弟弟可能是一种协调型双语，使用两套概念，在学校学习英语，同时在家里和朋友之间继续说西班牙语。最后，加布里埃拉的父母可能是从属型双语，通过他们的主要语言来学习第二语言。

Because all types of bilingual people can become fully **proficient** in a language regardless of accent or pronunciation, the difference may not be apparent to a casual observer. But recent advances in brain imaging technology have given neurolinguists a **glimpse** into how specific aspects of language learning affect the bilingual brain. It's well known that the brain's left **hemisphere** is more dominant and analytical in logical processes, while the right hemisphere is more active in emotional and social ones, though this is a matter of degree, not an absolute split.

因为所有类型的双语者都可以完全熟练掌握一种语言，而不考虑口音或发音，所以对于一个普通的观察者来说，这种差异可能并不明显。但最近脑部成像技术的进步让神经语言学家看到了语言学习的特定方面是如何影响双语大脑的。众所周知，大脑的左半球在逻辑过程中更具优势和分析性，而右半球在情感和社会过程中更活跃，尽管这只是一个程度问题，而不是绝对的分裂。

immigrate
v. 移居，移民

simultaneously
adv. 同时地

subordinate
adj. 从属的

proficient
adj. 熟练的，精通的

glimpse
n. 一瞥

hemisphere
n. 半球

The fact that language involves both types of functions while **lateralization** develops gradually with age, has lead to the critical period **hypothesis**. According to this theory, children learn languages more easily because the **plasticity** of their developing brains lets them use both hemispheres in language acquisition, while in most adults, language is lateralized to one hemisphere, usually the left.

语言涉及两类功能，而侧化随着年龄的增长而逐渐发展，这一事实导致了关键期假说。根据这一理论，儿童更容易学习语言，因为他们发育中的大脑的可塑性让他们在语言学习中使用两个半球，而在大多数成年人中，语言被侧化在一个半球，通常是左半球。

If this is true, learning a language in childhood may give you a more **holistic** grasp of its social and emotional contexts. Conversely, recent research showed that people who learned a second language in adulthood exhibit less emotional bias and a more rational approach when confronting problems in the second language than in their native one.

如果这是真的，在儿童时期学习一种语言可能会让你对其社会和情感背景有更全面的把握。相反，最近的研究表明，在成年后学习第二种语言的人在面对第二种语言的问题时，表现出较少的情感偏见和更理性的方法。

But regardless of when you acquire additional languages, being multilingual gives your brain some remarkable advantages. Some of these are even visible, such as higher density of the grey matter that contains most of your brain's **neurons** and **synapses**, and more activity in certain regions when engage a second language.

但是，无论你何时获得更多的语言，多语言给你的大脑带来一些显著的优势。其中一些甚至是可见的，例如包含你大脑大部分神经元和突触的灰质的密度更高，以及在使用第二种语言时某些区域的活动更多。

lateralization

n. 偏侧优势

hypothesis

n. 假设

plasticity

n. 可塑性

holistic

adj. 整体的，
全面的

neuron

n. 神经元

synapse

n. 突触

The heightened workout a bilingual brain receives throughout its life can also help delay the onset of diseases, like Alzheimer's and **dementia** by as much as five years.

双语大脑在其一生中得到的高度锻炼也可以帮助推迟疾病的发生，如阿尔茨海默氏症和痴呆症，时间长达五年。

dementia

n. 痴呆

The idea of major cognitive benefits to bilingualism may seem **intuitive** now, but it would have surprised earlier experts. Before the 1960s, bilingualism was considered a **handicap** that slowed a child's development by forcing them to spend too much energy distinguishing between languages, a view based largely on flawed studies.

双语在认知方面有很大好处的想法现在看来很直观，但它会让早期的专家感到惊讶。在20世纪60年代之前，双语被认为是一种障碍，它迫使儿童花太多的精力去区分不同的语言，从而减缓了儿童的发展，这种观点主要是基于有缺陷的研究。

intuitive

adj. 直觉的

handicap

n. 残障，残疾

And while a more recent study did show that reaction times and errors increase for some bilingual students in cross-language tests, it also showed that the effort and attention needed to switch between languages triggered more activity in, and potentially strengthened, the **dorsolateral** prefrontal cortex. This is the part of the brain that plays a large role in executive function, problem solving, switching between tasks, and focusing while filtering out irrelevant information.

而最近的一项研究确实表明，在跨语言测试中，一些双语学生的反应时间和错误增加了，但它也表明，在语言之间切换所需的努力和注意力引发了背外侧前额叶皮层的更多活动，并有可能加强这一皮层。这是大脑的一部分，在执行功能、问题解决、任务之间的切换以及在过滤无关信息时集中注意力方面发挥着巨大作用。

dorsolateral

adj. 背外侧的

So, while bilingualism may not necessarily make you smarter, it does make your brain more healthy, complex and actively engaged, and even if you didn't have the good fortune of learning a second language as a child, it's never too late to do yourself a favor and make the linguistic leap from, "Hello," to, "Hola," "Bonjour" or "你好's" because when it comes to our brains a little exercise can go a long way.

因此，虽然双语不一定使你更聪明，但它确实使你的大脑更健康、更复杂、更积极地参与，即使你没有幸运地在童年时学习第二语言，现在帮自己一个忙，从"Hollo "到"Hola"、"Bonjour "或"你好"的语言飞跃，永远不会太晚，因为当涉及到我们的大脑时，一点点锻炼可以有很大的帮助。

leap

n. 跳跃，跳高