The Bilingual Brain

It used to be thought that being bilingual was a bad thing
- that it would **confuse** or hold people back, especially children.

Turns out, we couldn't have been more wrong.

Learning new languages is an exercise of the mind.

It's the mental equivalent of going to a gym every day.

***Benefits** of being bilingual*

In the bilingual **brain**, all our languages are active, all at the same time.

The **continual effort** of **suppressing** a language when speaking another, along with the mental challenge that comes with regularly **switching** between languages, exercises our brain.

It **improves** our concentration, problem solving, memory, and in turn our creativity.

It's now **widely accepted** that there are huge benefits to being bilingual.

A key **breakthrough** came back in 2007 in Toronto, when Ellen Bialystok and her team made a **discovery** that shook the scientific community - and has massive real-world **implications**.

Cognitive Reserve

It was the first study which **suggested** that bilingual people - people who speak more than one language - develop dementia four to four-and-a-half years later than those who don't.
It was a powerful **confirmation** of the idea of cognitive reserve.

Now, what is cognitive **reserve**?

Cognitive reserve is the idea that people develop a reserve of thinking abilities, and this protects them against losses that can **occur** through ageing and disease.

As well as **delaying** the **onset** of dementia, bilingual people have been shown to **recover significantly** better after a **stroke**.

confuse
запутывать, усложнять

benefit
польза, выгода

brain
мозг

continual
постоянный

effort
усилие

suppress
сдерживать, подавлять

switch
переключаться

improve
улучшать

widely accepted
общепринятый

breakthrough
прорыв, достижение

discovery
открытие

implications
последствия

suggest
предлагать

confirmation
утверждение, доказательство

Learning anything new helps build cognitive reserve. But there's something special about language.

Language is particularly broad and complex. It affects ideas and concepts, **perception**, different sounds.

The more complex a **certain** skill is, the more likely it is to have a positive effect on cognitive reserve.
When is the best time

So when is the best time to learn a new language?

Well, here's part of the answer.

The brain is a complex set of neural networks.

When you're learning a new language as a child, you're building new networks.

But when you learn a language later in life, you have to **modify** the **existing** networks and make more connections.

Because learning languages later in life can be more challenging, the benefits can also be greater.

Brain networks

But a 2023 study at Great Ormond Street suggests this is just part of the story.

So we invited three groups of children that were aged eight to 10.

We had a group of children who were monolinguals.
A group of children who had early **exposure** to Greek and English from birth - they were our early bilinguals.
And finally, we had a group who had been **exposed** to English between the age of two and five, and they were our later bilinguals.

So what we did that no-one had done before, is that we asked the children to lie in the scanner while doing nothing - and just **stare** at a cross.

And during this, we **measured** their brain activity.
What we found that was really exciting for us is that our early bilingual group had the strongest **connectivity** in the network at rest.

reserve
резерв
occur
происходить, встречаться

delay
задержка, промедление

onset
начало

recover
восстанавливать, выздоравливать

significantly
знаменательно

stroke
приступ; удар; паралич

perception
восприятие, понимание

certain
определенный, некоторый

modify
видоизменять, модифицировать

existing
существующий

exposure
воздействие

exposed
подверженный действию

And these groups of regions are regions that light up when we're doing nothing and just **mind-wandering**.

A little bit like if you're going to the gym every day, your **muscles** might look bigger at rest.

Similarly your brain might be better connected at rest, because you are learning a language early.

And this is something no-one had found before.

And there's more

One lesser-known **behavioural** effect of bilingualism in both children and adults is the **ability** to see the other people's **perspective**, or to understand that it is possible to have different points of view.

Recent studies have also found that people tend to react more emotionally in their first language, and more rationally, in a more abstract way, in their second.

And the way it is usually explained is that the first language is the one which we use to speak with family, with friends - in informal settings.

The second language is usually learned at school, at the university, at work.

Scientists are **discovering** new upsides to being bilingual all the time.

And it's not just our brains that benefit.

Learning new languages, and speaking more than one language, is very important - not only for individuals, but also for societies.

Learning new languages can open doors to new cultural experiences, life opportunities.

Different people, different communities, and different ways of seeing the world.

And with that, we'll say a final...
Bye!

stare
пристально смотреть
measure
измерять, мерить

connectivity
связность, связь

mind-wandering
блуждание ума

muscles
мышцы

similarly
аналогичным образом, так же

behavioural
поведенческий

ability
способность, возможность

perspective
вид, взгляд

recent
недавний, последний

discover
обнаруживать, открывать