

News > Science

How the language you speak changes your view of the world

Panos Athanasopoulos | Wednesday 29 April 2015 | 21 comments

Facebook, Twitter, Email icons and 0 shares



The benefits of being bilingual start early *Corbis*

Bilinguals get all the perks. Better job prospects, a cognitive boost and even protection against dementia. Now **new research** shows that they



The past 15 years have witnessed an overwhelming amount of research on the bilingual mind, with the majority of the evidence pointing to the **tangible advantages** of using more than one language. Going back and forth between languages appears to be a kind of brain training, pushing your brain to be flexible.

Just as regular exercise gives your body some biological benefits, mentally controlling two or more languages gives your brain cognitive benefits. This mental flexibility pays big dividends especially later in life: the typical signs of cognitive ageing occur later in bilinguals – and the onset of age-related degenerative disorders such as dementia or Alzheimer’s are delayed in bilinguals by **up to five years**.

Germans know where they’re going

In research we recently published in *Psychological Science*, we studied German-English bilinguals and monolinguals to find out how different language patterns affected how they reacted in experiments.

We showed German-English bilinguals video clips of events with a motion in them, such as a woman walking towards a car or a man cycling towards the supermarket and then asked them to describe the scenes.

When you give a scene like that to a monolingual German speaker they will tend to describe the action but also the goal of the action. So they would tend to say “A woman walks towards her car” or “a man cycles towards the supermarket”. English monolingual speakers would simply describe those scenes as “A woman is walking” or “a man is cycling”, without mentioning the goal of the action.

The worldview assumed by German speakers is a **holistic** one – they tend to look at the event as a whole – whereas English speakers tend to zoom in on the event and focus only on the action.

The linguistic basis of this tendency appears to be rooted in the way different grammatical tool kits situated actions in time. English requires its speakers to grammatically mark events that are ongoing, by



rang”. German doesn’t have this feature.

Research with second language users shows a relationship between linguistic proficiency in such grammatical constructions and the frequency with which speakers mention the goals of events.

In our study we also found that these cross-linguistic differences extend beyond language usage itself, to nonverbal categorisation of events. We asked English and German monolinguals to watch a series of video clips that showed people walking, biking, running, or driving. In each set of three videos, we asked subjects to decide whether a scene with an ambiguous goal (a woman walks down a road toward a parked car) was more similar to a clearly goal-oriented scene (a woman walks into a building) or a scene with no goal (a woman walks down a country lane).

German monolinguals matched ambiguous scenes with goal-oriented scenes more frequently than English monolinguals did. This difference mirrors the one found for language usage: German speakers are more likely to focus on possible outcomes of people’s actions, but English speakers pay more attention to the action itself.

Switch languages, change perspective

When it came to bilingual speakers, they seemed to switch between these perspectives based on the language context they were given the task in. We found that Germans fluent in English were just as goal-focused as any other native speaker when tested in German in their home country. But a similar group of German-English bilinguals tested in English in the United Kingdom were just as action-focused as native English speakers.

In another group of German-English bilinguals, we kept one language in the forefront of their minds during the video-matching task by making participants repeat strings of numbers out loud in either English or German. Distracting one language seemed to automatically bring the influence of the other language to the fore.



blocked, bilingual subjects acted like English speakers and matched ambiguous and open-ended scenes. When we surprised subjects by switching the language of the distracting numbers halfway through the experiment, the subjects' focus on goals versus process switched right along with it.

These findings are in line with other research showing distinct behaviour in bilinguals depending on the language of operation. Israeli Arabs are more likely to associate Arab names such as Ahmed and Samir with positive words in an Arabic language context than in a Hebrew one, for example.

People self-report that they feel like a different person when using their different languages and that expressing certain emotions carries different emotional resonance depending on the language they are using.

When judging risk, bilinguals also tend to **make more rational economic decisions** in a second language. In contrast to one's first language, it tends to lack the deep-seated, misleading affective biases that unduly influence how risks and benefits are perceived. So the language you speak in really can affect the way you think.

This article was originally published on [The Conversation](#). [Read the original article](#).



Start your day with The Independent's news email



COMMENTS

[Log in or register to comment](#)

Ituknar Anmaa

30 days ago

There are at least a dozen or so languages spoken in my son's reception class of 16. Most of the children speak two or even three languages at home. For some reason the Express seems to think this is a bad thing. Scientist have found that being multi lingual is actually advantageous for children's intellectual development <http://www.nih.gov/news-events/nih-research-matters/bilingual-effects-brain>

A new study found certain brain functions that are enhanced in teens who are fluent in more than one language. The finding gives new insight into how our senses help shape our brains.

About 1 in 5 children nationwide speak a language other than English at home. Children who grow up learning to speak 2 languages tend to learn English words and grammar more slowly than those who speak only English. But studies have found that bilingual children tend to be better than monolingual children at multitasking. They are also better at focusing their attention—for example, homing in on a voice in a noisy school cafeteria.

Dr. Nina Kraus and her colleagues at North western University have been using scalp electrodes to analyse activity in the brain circuits that process complex sounds (called the auditory brainstem response). They noted that musicians show attention and memory advantages similar to those seen in bilinguals. In past work, the researchers found that musicians have enhanced auditory brainstem responses to the timing and harmonics in sound. The scientists decided to test whether bilingual teens, whose brains are still developing, would also show an enhanced response to complex sounds.

The researchers studied 48 incoming first year high school students, 23 of whom were proficient in both Spanish and English. The rest were proficient only in English. The study was funded by NIH's Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD). Results appeared in the April 30, 2012, advance online edition of the Proceedings of the National Academy of Sciences.

The researchers played the speech syllable “da” to the teens, using electrodes to record the intensity of their auditory brainstem response. Bilinguals showed a larger response than monolinguals. When the sound was played with a background of babble, monolingual teens had a less intense response than when it was played alone. In contrast, bilinguals showed virtually identical responses with and without the background babble.

In another experiment, the teens were given a selective attention test



a period of 20 minutes. The bilingual teens outperformed the monolingual teens on this test.


The researchers then compared the results of the 2 sets of experiments. Among bilingual teens, the intensity of the auditory brainstem response during the babble test correlated with attention test scores. In contrast, there was no correlation among the monolingual teens. These findings suggest that the bilingual experience may help improve selective attention by enhancing the auditory brainstem response.

“Bilingualism serves as enrichment for the brain and has real consequences when it comes to executive function, specifically attention and working memory,” Kraus says. The team next plans to explore whether learning a language later in life can bring similar benefits.

“The bilingual juggles linguistic input and, it appears, automatically pays greater attention to relevant versus irrelevant sounds,” says team member Dr. Viorica Marian. “Rather than promoting linguistic confusion, bilingualism promotes improved 'inhibitory control,' or the ability to pick out relevant speech sounds and ignore others.”

—by Harrison Wein, Ph.D.

Reply Share

0 likes  

AnttiKivivalli

30 days ago

Yes, and you know what: We Finns are good at nonverbal communication!

Many would think that say Italians are good at nonverbal communication with all their gestures but hey, that's like shouting when the subtle message doesn't get through.

This idea came very strongly some twenty years ago when a Canadian friend was in Finland and we were resting after an intensive workday at a cup of tea and the tv was on in the room. Finally Howard said: "Look at that Finnish movie or whatever on tv right now! They haven't said anything for ten minutes!" I looked at the tv, saw the man there washing his face and said: "Yes, but I know what he is thinking."

Be subtle, learn Finnish.

Reply Share 1 reply

+1 likes  

phipholino

30 days ago



I'm trying to "be subtle" for 3 years already!!! :(

Gallardo

31 days ago

MY goodness! I will stop thinking in English right away.
Hahaha, just kidding.

Reply Share


0 likes  

MissRachelKat

31 days ago

So I should start speaking and thinking in Spanish to make more rational decisions?

Reply Share

0 likes  

i100 TRENDING



Some of the non-Muslim gender segregated groups David Cameron isn't banning



Who would have won the general election if the parties had spent the same amount of money?



The staggering toll of Isis on Iraq, in numbers



The Oscars' problem with diversity, summed up in one damning gif



Inequality in America, summed up by one heartbreaking paragraph

MOST POPULAR



5 of the worst atrocities carried out by the British Empire



Petition launched to stop Kanye West recording David Bowie covers



David Bowie's Labyrinth returning to Odeon cinemas



All the things that cost more than a barrel of oil, including a barrel

VIDEO



Jason Rezaian makes first public appearance since being freed by Iran



Leonardo DiCaprio launches blistering attack on oil companies



Heartwarming video shows new-born premature twins holding hands

SPONSORED FEATURES



Funding the future of innovation



Spain by boat



How to help your children apply for university



Settin' off from the dock of the Bay: Kayaking in Georgian Bay

Follow us:



- [User Policies](#)
- [Privacy Policy](#)
- [Cookie Policy](#)
- [Code of Conduct](#)
- [Complaint Form](#)
- [Contact Us](#)
- [Contributors](#)

- [All Topics](#)
- [Archive](#)
- [Newsletters](#)
- [iJobs](#)
- [Subscriptions](#)
- [Advertising Guide](#)
- [Syndication](#)

