

Bilingualism and your brain by Robyn Berghoff

Card text	Visual Notes
<p>Card 1</p> <p>Introduction: Welcome! In this course, you will learn about how bilingualism affects your brain.</p>	<p>Line drawing of a brain with two callouts, each containing a word in a different script (e.g., 你好, hello!)</p>
<p>Card 2</p> <p>Bilinguals are people who can speak two or more languages. Today, most of the world's population is bilingual.</p>	<p>Line drawing of a group of ethnically diverse people. Each person has a callout positioned at their mouth. Each callout says "Hello" in two different languages.</p>
<p>Card 3</p> <p>We use the term "monolingual" to refer to people who speak only one language.</p>	<p>Line drawing of a person with a callout positioned at their mouth. The callout says "Hello!"</p>
<p>Card 4</p> <p>Monolinguals, and even bilinguals, are often unaware of the many positive effects of bilingualism.</p>	<p>Line drawing of a person holding up their hands and shrugging their shoulders.</p>
<p>Card 5</p> <p>One obvious positive effect is that being bilingual enables you to communicate and connect with a wider variety of people.</p>	<p>Three small line drawings, each showing the same person communicating with a different conversation partner. The text in the callouts makes it clear that a different language is being spoken in each conversation.</p>
<p>Card 6</p> <p>As Nelson Mandela said, "When you speak to a person in a language that is their own, you speak to their heart."</p>	<p>Animation of a smiling cartoon heart.</p>
<p>Card 7</p> <p>However, did you know that bilingualism also has effects on your brain and how it functions?</p>	<p>Line drawing of a personified brain, smiling and waving.</p>
<p>Card 8</p> <p>Bilingualism exerts these effects because it requires the brain to constantly manage two or more competing language systems.</p>	<p>Line drawing of a personified brain with two callouts positioned at its mouth. The one on the left says "Dzień dobry!" The one on the right says, "Good day!"</p>

<p>Card 9</p> <p>Imagine your brain as a traffic officer at a busy intersection. There are cars coming from several directions. All of them want to go, but the traffic officer has to manage their movements to make sure that no accidents occur.</p>	<p>Line drawing of a personified brain at an intersection. The brain has a whistle and is holding up a hand to stop one row of cars while another row advances across the intersection.</p>
<p>Card 10</p> <p>When the traffic officer tells certain cars to go, they have to make sure that the other cars are stopped, otherwise an accident will happen.</p>	<p>Line drawing of a personified brain gasping with its hands over its mouth while it looks at two cars that have crashed into each other head on.</p>
<p>Card 11</p> <p>A bilingual's two languages are like streams of traffic coming from opposite directions at an intersection.</p>	<p>Overhead view of an intersection (line drawing). There are two rows of cars. In one row, each car is labelled "Arabic". In the other row, each car is labelled "Spanish".</p>
<p>Card 12</p> <p>Research shows that both of a bilingual's languages are always active: it is impossible to switch either language off, even in a situation where only one language is required.</p>	<p>Side-on view of the personified brain sitting across the bonnets of two cars, one labelled "Arabic" and the other labelled "Spanish", as both cars move forward (line drawing).</p>
<p>Card 13</p> <p>This means that when a bilingual wants to use only one of their languages, they have to put the other language on hold.</p>	<p>Side-on view of the personified brain trying to hold one car (labelled "Spanish") back while another car (labelled "Arabic") tries to move past (line drawing).</p>
<p>Card 14</p> <p>Sometimes, however, the situation changes rapidly, and the bilingual must put the brakes on one language while allowing the other one to start up again.</p>	<p>Line drawing of the personified brain chasing after a car (labelled "Arabic"), whistle blowing behind it in the wind, with a callout positioned at its mouth containing the word "Stop!"</p>
<p>Card 15</p> <p>All of this management can be quite a workout for the brain!</p>	<p>Line drawing of personified brain with a whistle around its neck sweating and panting, wiping a hand across its brow.</p>
<p>Card 16</p> <p>Recap: So, we have learned so far that people who speak two languages must constantly manage competition between these two</p>	<p>--</p>

<p>language systems. What effects does this constant management have on the brain?</p>	
<p>Card 17</p> <p>Firstly, compared to the brain of a monolingual, the brain of a bilingual contains more cells in areas involved in thinking and social interaction.</p>	<p>Line drawing of two personified brains. One is labelled “bilingual”; the other is labelled “monolingual”. The bilingual brain is bigger and more muscular than the monolingual brain.</p>
<p>Card 18</p> <p>Interestingly, how much the brain changes depends on various aspects of the bilingual experience, including the bilingual’s level of skill in each language and how often they are exposed to each language.</p>	<p>Line drawing of two personified brains of different sizes, both labelled “bilingual”, waving at each other.</p>
<p>Card 19</p> <p>This means that the brain of a bilingual who lives in a country with lots of languages, such as South Africa, differs from that of a bilingual living in a more monolingual country, such as England.</p>	<p>Line drawing of the same two brains from the previous card. The bigger one is waving a South African flag; the smaller one is waving a British flag.</p>
<p>Card 20</p> <p>The bilingual brain is like a muscle that grows as it is trained. In settings where many languages are spoken, the brain has to work harder as a traffic controller, because it switches between languages more often. Harder work causes greater changes.</p>	<p>Line drawing of the same two brains from the previous card. The one with the South African flag is panting with its whistle in its mouth. The one with the British flag is relaxing in a deck chair.</p>
<p>Card 21</p> <p>Structural changes in the brain are all very well and good, but what do they mean for how the brain actually works?</p>	<p>Line drawing of a personified brain holding a notebook, pen, and calculator.</p>
<p>Card 22</p> <p>One exciting benefit of the brain workouts that come along with bilingualism is that they protect against the decline in brain function that happens as we get older.</p>	<p>Line drawing of a personified brain with curly grey wig, glasses, and a walking stick, waving.</p>
<p>Card 23</p> <p>Research shows that in bilinguals, diseases</p>	<p>Line drawing of a personified brain scratching its head and looking confused. There is a</p>

<p>associated with memory loss and poor problem-solving show up later than in monolinguals.</p>	<p>thought bubble above its head containing a picture of a bunch of keys.</p>
<p>Card 24</p> <p>In other words, bilingual brains stay healthier for longer.</p>	<p>Line drawing of a personified brain flexing its biceps.</p>
<p>Card 25</p> <p>If you're already a bilingual, this is great news for you. However, even if you know only one language now, it's never too late to learn another one.</p>	<p>Line drawing of a personified brain sitting down with a book labelled "isiXhosa for Dummies".</p>
<p>Card 26</p> <p>Even older adults can benefit from starting to learn a new language late in life.</p>	<p>Line drawing of two personified brains with curly grey wigs and glasses sitting next to each other. Each is reading a different language textbook.</p>
<p>Card 27</p> <p>Recent research suggests that learning a new language can improve older adults' brain functioning and their self-esteem.</p>	<p>Line drawing of a personified older brain (with curly grey wig and glasses) high-fiving a personified younger brain wearing sneakers and a backwards-facing cap.</p>
<p>Card 28</p> <p>Why not start working out your brain, then? The social and cognitive benefits of bilingualism are enormous!</p>	<p>Line drawing of a personified brain with two callouts positioned at its mouth. One says "Let's do it!" The other says "Vamos!"</p>
<p>Card 29</p> <p>Summary: We have learned that bilingualism is a form of brain training that keeps your brain healthy as you age. It is never too late to start learning another language – start today and reap the benefits!</p>	<p>--</p>
<p>Card 30</p> <p>Activity: How many languages do you know, and how often do you switch between them in your daily life? Are there opportunities for you to use your different languages more often as a way of increasing your brain training? If you're monolingual at the moment, is there a language you'd be interested in learning?</p>	<p>--</p>

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