大脑与政治信仰 Brains and politics

Hello, I'm Alice, and I'm Rob, and this is 6 Minute English!

大家好，我是爱丽丝，我是罗伯，这里是英语六分钟！

We've had a special request from our listeners in Lugano, Switzerland for a more complicated topic this week.

本周，我们收到了来自瑞士卢加诺听众的特别请求，他们想要了解一个更复杂的话题。

We're talking about the structure of the brain, and how it could be related to our political beliefs.

我们会讨论大脑的结构，以及它是如何与我们的政治信仰联系在一起的。

Scientists at University College London scanned people's brains and found that certain areas were more or less developed depending on people's political views.

伦敦大学学院的科学家们扫描了人们的大脑，发现某些区域的发达程度取决于人们的政治观点。

And - they found some interesting results! Before we hear them, I have a question for you Rob.

他们发现了一些有趣的结果！ 在我们听到结果之前，我有一个问题要问罗伯。

Are you ready? Of course.

你准备好了吗? 当然。

Now, which of these isn't a part of the brain?

下面哪个不是大脑的一部分?

And please excuse my pronunciation: a) corpus callosum, b) tomatosensory cortex, c) pons.

请原谅我的发音：a)胼胝体，b)番茄感觉皮层，c)脑桥。

Mmm–well, my Latin isn't that great, but I think I'll choose b, tomatosensory cortex.

我的拉丁语不是很好，但我想我选b，番茄感觉皮层。

It doesn't sound real to me.

我觉得这听起来不太真实。

OK. Well, as usual I won't tell you the answer now - but we'll find out at the end of the programme.

好的。和往常一样，我现在不会告诉你答案，但我们会在节目的最后找到答案。

Now let's learn a bit more about this connection between the structure of the brain and a person's political beliefs.

现在让我们来学习更多关于大脑结构和一个人的政治信仰之间的联系。

Let's think about the different ways we can talk about these.

我们来想一下讨论这些问题的不同方法。

添加的词汇

odd

英:/ɒd/ 美:/ɑːd/

adj. 奇数的；古怪的；临时的；剩余的；零散的 n. 奇数；奇特的事物；怪人

If someone is left-wing...they are considered to have liberal views.

如果某人是左翼.....他们被认为有自由主义观点。

And if they are right-wing.

如果他们是右翼的话。

If they are right-wing they are thought to be more conservative.

如果他们是右翼，他们被认为是更保守的。

Scientists carried out MRI scans on two British Members of Parliament–MPs - as well as 90 other students and postgraduates.

科学家们对两名英国国会议员以及其他90名学生和研究生进行了核磁共振扫描。

Their hypothesis–the theory they are testing to see if it is correct or not - is to find out if there is any difference in their brains.

他们的假设——他们正在测试这个理论是否正确——是为了找出扫描者的大脑是否有任何不同。

These MRI scans can measure the thickness of the grey matter in the brain–that's the outer layer of the brain which varies in thickness, and is full of neurons–nerve cells, which are very sensitive.

这些核磁共振扫描可以测量大脑灰质的厚度——灰质是大脑的外层，它的厚度变化不定，充满了神经元——神经细胞，它们非常敏感。

Here's a BBC Science correspondent, Tom Feilden: It's time to get down to the serious business of scanning our MPs–one left and one right-wing to see if we can find any differences in the structure of their brains.

下面是BBC科学记者汤姆·菲尔登的报道：是时候认真地扫描议员的大脑了——一个左派和一个右派，看看我们是否能在他们的大脑结构中发现任何差异。

Bit of scanner noise coming now.

现在有一点扫描仪噪音。

We're now standing in the control room of our MRI scanner...

我们现在站在核磁共振扫描仪的控制室里.....

Professor Geraint Rees is the Director of the Institute of Cognitive Neuroscience at University College London.

杰伦特·里斯教授是伦敦大学学院认知神经科学研究所的主任。

We're going to look in detail at the thickness of the grey matter - that's the outer covering of the brain.

我们将详细观察灰质的厚度——灰质是大脑的外层覆盖物。

The hypothesis we're testing is to see whether there is any significant difference in the shape or structure - the thickness of the grey matter covering the brain - between people who self-classify as either left or right wing.

我们正在测试的假设是，看看在自认为属于左翼或右翼的人之间，大脑的形状或结构(覆盖大脑的灰质厚度)是否存在显著差异。

So did people who self-classify themselves–describe themselves as being liberal or conservative - have different shaped brains?

那么，那些把自己归类为自由派或保守派的人是否有不同的大脑形态呢?

What the scientists found was that people who have thicker grey matter in one area of the brain–the anterior cingulate- described themselves as being liberal or left-wing, and those with a thinner layer described themselves as conservative or right-wing.

科学家们发现，大脑前扣带灰质较厚的人将自己描述为自由派或左翼，而那些灰质较薄的人将自己描述为保守派或右翼。

Here's Professor Geraint Rees: We find there are two areas of the brain–one called the anterior cingulate and the other called the amygdala, whose structure seems to vary according to their self-described political attitudes.

杰伦特·里斯教授说:我们发现大脑中有两个区域，一个叫做前扣带，另一个叫做杏仁核，其结构似乎根据他们自我描述的政治态度而变化。

The anterior cingulate is a part of the brain that's on the middle surface of the brain, at the front.

前扣带是大脑的一部分，在大脑的中间表面，在前面。

And we found that the thickness of the grey matter–where the nerve cells or neurons are - was thicker the more people described themselves as liberal or left-wing, and was thinner the more people described themselves as conservative or right wing.

我们发现，大脑灰质(神经细胞或神经元所在的地方)的厚度在认为自己是自由派或左翼的情况下越厚，认为自己是保守派或右翼的情况下越薄。

That's all very interesting, Alice–but what about people who change their political beliefs as they get older?

这些都很有趣，爱丽丝——但是那些随着年龄增长而改变政治信仰的人呢?

Does this mean their brain shapes change too?

这是否意味着他们的大脑形状也会改变呢?

We don't know yet if brain shape changes as people's political views change.

我们还不知道大脑形状是否会随着人们政治观点的改变而改变。

More research needs to be done - but scientist Professor Colin Blakemore from Oxford University says that grey matter can change shape in the brain.

虽然还需要做更多的研究，但牛津大学的科学家科林·布莱克莫尔教授表示，灰质可以改变大脑的形状。

For example, even playing computer games for a short period of time a week can change the shape of your grey matter: We know from lots of other recent studies, that the brain - even the grey matter of the brain, the part that's being measured in these studies - can change its organisation incredibly rapidly, simply teaching someone computer games for a few minutes each week, can cause their grey matter in certain areas of the brain to change thickness.

举个例子，甚至在短时间内玩电脑游戏，比如一个星期，你的灰质形状都会改变：从很多最近其他的研究中我们了解到大脑，甚至大脑灰质，被测量的部分在这些研究中，其组织可以迅速改变，每周简单教一些人玩几分钟电脑游戏，也会导致他们的大脑灰质在某些区域改变厚度。

So perhaps even people who seem hard-wired to believe certain things may be able to change their minds and the shape of their brains too.

因此，即使是那些似乎天生相信某些事情的人，他们的思想和大脑的形状也可能改变。

Now before we go let's answer our question.

在我们结束之前，解答一下之前的问题。

We heard a couple of terms used to describe parts of the brain.

我们听到了几个用来描述大脑部位的术语。

But which of the ones I gave you, Rob, at the beginning of the programme were real?

但是，罗伯，在节目开始时我给你的哪个选项是正确答案?

I think I said the one that sounded like a tomato?

我想我说的是听起来像番茄的那个?

It didn't sound like a real part of the brain.

听起来不像是大脑的一部分。

Well, Rob, you're right.

罗伯，你说得对。

The ***odd*** one out was the tomatosensory cortex.

有问题的是番茄感觉皮层。

The corpus callosum and the pons are parts of the brain.

胼胝体和脑桥是大脑的一部分。

And before we go, let's hear some of the words and phrases that we've used in today's programme: Political beliefs, Scanned, Left-wing, Liberal, Right-wing, Conservative, MRI scans, Hypothesis, Grey matter, Neurons.

在节目结束之前，让我们来听听今天节目中用到的一些单词和短语：政治信仰，扫描，左翼，自由党，右翼，保守党，核磁共振扫描，假设，灰质，神经元。

Thanks, Rob.

谢谢，罗伯。

Well, we hope you've had fun with us today on 6 Minute English - and that you'll join us again next time. Bye.

好了，我们希望大家在今天的六分钟英语中找到了乐趣，下次记得加入我们。再见。