

## **Explainer: What is foreign accent syndrome?**

June 20 2013, by Lyndsey Nickels



While it seems unbelievable, there's a scientific explanation for foreign accent syndrome – and it may surprise you. Credit: Baturix

In the past few days, a great deal of media attention has been paid to Leanne Rowe, a Tasmanian woman who has lived eight years with a French accent she acquired after a car accident. This phenomenon is known as foreign accent syndrome, a rare disorder that usually arises after brain damage as a result of, for example, stroke or head injury.

Foreign accent syndrome has always been the source of much media interest and the stories often sound sensational. There has been, for example, an American who spoke with a British accent, a British Yorkshireman with an Irish accent and another British man with a Russian accent.



More spectacular are tales of people waking from strokes or comas speaking fluently in languages they hardly knew before. While there is no scientific verification of cases of speaking a new language, speaking with a foreign accent is well documented, as shown in the video below.

This is not just an English phenomenon – one of the first cases was of a Norwegian woman who suffered <u>brain damage</u> as the result of being hit by bomb shrapnel during an air raid in World War II. She acquired a German accent and was subsequently shunned by friends and neighbours who thought she was a German spy.

It is obvious how in this case the change of accent can have distressing consequences. But even in less extreme cases, the change in perceived identity can be hard to cope with, as Ms Rowe reports. However, better understanding of the cause of the problem often helps the sufferer and those around them.

## What causes foreign accent syndrome?

Foreign accent syndrome is caused by brain damage which impairs the control of the muscles used to produce speech.

Speaking requires very precise control of the muscles of lips, tongue and jaw (the speech articulators) and the larynx (voicebox). If the placement of the articulators, speed or coordination of movements are slightly out of sync, then speech sounds will be altered. For example, when people are drunk the effects of alcohol on muscle control and coordination causes distortion of the speech sounds and leads to the perception of slurring.

Vowels are particularly susceptible: which vowel you say depends on where your tongue is in your mouth. Slight differences in where your tongue is – how far forward or back, how high or low in your mouth –



changes the vowel you produce. Different languages have different vowels and within a language one of the main differences between accents is in the vowels. Aussies accuse Kiwis of saying "fush and chups" and Kiwis of Aussies "feesh and cheeps"!

Research has shown people with foreign accent syndrome nearly always have trouble producing vowels. Brain damage affects their ability to control their tongue movements. There may be too much or too little muscle tension and therefore they may "undershoot" or "overshoot" their target. This leads to the vowels sounding different, and sometimes they may sound like a different accent.

Another commonly reported feature of foreign accent syndrome is a problem with the stress pattern of words and rhythm and intonation of sentences (prosody). People with foreign accent syndrome may speak slowly, separate out syllables and say each one with equal stress – for example, "banana" as "bar-nar-nar" rather than "buhNARnuh".

So, the problems with muscle movement and coordination cause in changes to the way the speech sounds. When the new speech sounds are similar to those of an existing accent, the speaker can be perceived to be speaking with a foreign accent. People with foreign accent syndrome don't speak with all the features of a foreign accent, but there are enough things about the way they speak to make it seem as though they have a different accent.

## In this case, why French?

Leanne Rowe describes herself as speaking with a French accent, and there have been other speakers with foreign accent syndrome also described as having a French accent. However, when these cases have been studied in more detail interesting observations arise.



One set of researchers found that for an English woman with a French accent the changes to her speech were not in fact only those associated with French speakers of English – there were changes that were typical of many different accents. Another study asked people to decide what accent they thought a person with foreign accent syndrome had: a quarter said French, a quarter African and others Italian, Chinese, Spanish, German, Welsh and more!

It seems then that there are features in the speech of people with foreign accent syndrome that remind listeners of other accents. There is <a href="evidence">evidence</a> that once a listener has formed an impression of which accent it may be, then other features of the person's speech which don't fit with that accent will be ignored.

Which accent a listener thinks someone has may depend as much on their experience as the features of the speech itself. This is why many people with <u>foreign accent syndrome</u> are not described as having a single accent.

In essence, the strategies that people use to try to overcome their problems with muscle coordination and movement result in speech changes that overlap in some ways with those of non-native speakers. For Ms Rowe, some of those features are similar to those of French speakers of English. So even though it might sounds like Ms Rowe spent years in France, her acquired accent is an accident, produced by problems with movement and coordination of her lips, tongue and larynx.

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