

Can foreign languages drive you crazy?



On [The Science Show](#) they recently had [a program about how unfamiliar sounds, rhythms and tonalities can drive people crazy](#). I learnt that neuroscientists have been experimenting with the idea that when confronted with unfamiliar musical patterns the brain releases dopamine, which in large quantities can cause schizophrenia (in small quantities it makes you happy). As a striking example they cited Igor Stravinsky's [Rite of Spring](#), which when first performed in 1913, led to violent reactions in the audience and rioting in Paris. In a book called [Proust was a Neuroscientist](#), Jonah Lehrer in 2007 first proposed that the reason for the violence was that Stravinsky's use of asymmetrical rhythms, percussive dissonances, polyrhythms and polytonality was so new at the time that no one at the opera had ever heard anything like it. Consequently, the neurons in the listeners' brains started to fire all at the same time and their brains got flooded with dopamine and as a result of that little old ladies started to hit each other with their canes. This was the first time I ever heard any of this but when you look up "[classical music riot](#)" on Wikipedia, you get a list of 12 such events of mass violence following a musical premiere.

The good news is that the brain is of course our most flexible organ and within a short time we get used to new rhythms, tonalities and chords. Nowadays, most people think of Disney when they hear the kinds of asymmetries and dissonances that turned Stravinsky's bourgeois audience into rioters: "the music that was so fierce, so new and so disturbing on Monday [had] become kiddie music on Thursday," [as they put it on The Science Show](#).

What does all that have to do with foreign languages? I have for a long time been collecting anecdotes of interpersonal violence between speakers of different languages. Stories such as this tidbit of Australian bushranger lore about a gang of three men operating in early 19th century Tasmania: the bushranger gang consisted of two Irishmen, Scanlan and Brown, and and Englishman, Richard Lemon.

Lemon did not like Brown and Scanlan talking in Gaelic, of which he understood not a word. One morning when Brown was out hunting 'roos, Lemon crept up on Scanlan at the campfire, put a pistol to the back of his head and pulled the trigger. He then strung up the corpse by the heels on a gum tree, as if he were hanging a 'boomer' (big kangaroo) for skinning. "Now, Brown," he laconically observed when his partner returned, "as

there are only two of us, we shall understand one another better for the future.” (Hughes, R., *The Fatal Shore*, p. 227)

These were violent criminals and outlaws but I'm intrigued that they would turn against each other for something as comparatively trivial as linguistic choice. It's entirely possible, too, that they suffered from schizophrenia or some other mental disorder, seeing that they were stuck in the cruel and terrifying gulag that was colonial Tasmania.

So, can the sound of a foreign language act as a trigger for violence? Could it, in extreme situations, lead to a reaction in the brain that serves to remove inhibitions against violence? I don't know, of course, and am only speculating here. But dopamine might just be one little piece in a puzzle that has long intrigued me and that I'm addressing in more detail in [my new book](#): why is intercultural communication so often a story of cruelty, abuse and hatred rather than solidarity, compassion and kindness?

I'd love to hear from anyone who has stories to share about physical reactions they may have experienced on the sound of a foreign language.



Lehrer, Jonah (2007). *Proust was a neuroscientist* Houghton Mifflin Harcourt