

nguist

The Linguist, formerly The Incorporated Linguist, is the official journal of the Chartered Institute of Linguists.

FEBRUARY/MARCH 06: 45/1

TOMATIS

The voice in your ear

Ravneet Ahluwalia discovers Tomatis therapy helps language students progress in leaps and bounds

"One Italian student was having huge problems with his English," says Ella Williams, founder of the Listening Centre in north London. "But after just one two-hour session with us he came back changed. He had all the grammar, he knew when to use which tense, he was full of the information but he couldn't find that 'magic' to just glue it all together. After the session he was much more talkative and responsive."

The former opera singer established the centre after discovering a technique that had a profound effect on her singing abilities. Tomatis therapy is based on the idea that we cannot reproduce sound frequencies we cannot hear, and has been used to treat everything from dyslexia to autism. Williams' centre uses the technique to help with language learning, music, learning difficulties, and rhythm and coordination problems.

Dr Alfred Tomatis discovered the link between speaking and listening in the 1950s, while experimenting with opera singers who were having difficulties with their voices. The French ear specialist soon made the connection with language learning, suggesting that by training the ears to listen for the specific sounds of a new language we would be able to reproduce those sounds more easily.

According to Tomatis, all languages use the same base tones (125-250 Hz), but each language uses a different set of overtones. French, for example, uses low-pitched sounds (1,000-2,000 Hz), while British English uses high-pitched tones (2,000-12,000 Hz) the high-pitched 's' can be heard in many English words, whereas the 's' at the end of French words is rarely vocalised.

Tomatis argued that the muscles of the middle ear become flabby if they are not exercised - attuned to the frequencies of our native tongue and 'deaf' to foreign frequencies. In order to strengthen the middle ear he invented the Electronic Ear, a sophisticated device which forces the muscles to stretch and relax by repeatedly switching on and off problematic tones.

The second part of his treatment focuses on learning the structure of the language. During the first few sessions, students listen to high-pitched phrases in the new language, as these are the sounds they would have heard in the womb. They are then 'born' and lower-pitched phrases are allowed through. Finally they begin to repeat words and sentences.

The whole experience may sound a little New Age, but Tomatis's initial findings are based on sound scientific research. During his experiments with opera singers he used a special filter to prevent a singer hearing a specific sound and discovered that he soon lost the ability to reproduce the blocked sound. The prestigious Académies des Sciences et de Médecine de Paris were so impressed they recognised the three Laws of Tomatis in 1957. A year later, Tomatis won the gold medal for Scientific Research at the World Fair in Brussels for his Electronic Ear.

In 1976 the effectiveness of his method was tested in a school in Coomen, Belgium. A class of 30 high-school students was divided into two groups, well balanced in terms of their academic abilities and listening skills. The first group was taught English using standard methods for the entire school year; the second group received Tomatis training for three months, followed by six months of regular English lessons. At the end of the school year the Tomatis group out-performed the control group by a huge margin, and after the summer holiday the difference had increased as the control group had forgotten much of what they had learnt.

Tomatis now has fans all over the world. At the time of his death in 2001, he had established nearly 200 Listening Centres in countries as far-flung as Australia and Venezuela. But despite his achievements, Williams stresses that Tomatis therapy is not a quick-fix language tonic. Rather, it requires basic knowledge of the language and a lot of hard work. "Tomatis can take someone who is stuck in beginners and push them into intermediate and then into advanced. It's quite magical but you have to put the work in," she explains.

Her Italian student made great progress because he already had a lot of theoretical knowledge of English. His problem was that he couldn't hear the frequencies of British English and could not, therefore, reproduce accent and intonation – the elements that give a language its distinct flavour and enable us to be understood. "If you can't hear the sound it's like you are outside the door," explains Williams. "You hear the sound and it suddenly makes sense, you can put all the information into practice."

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