

Music to My Ears

By Kunio Yanagida

When the press of work forces me to stay at a hotel, I try to use my time writing, and I find the words flow easiest when I have the radio on to some quiet music by someone like Mantovani, Percy Faith or Paul Mauriat.

Some hotels choose to broadcast such orchestral music interspersed with traditional Japanese music on the assumption that its familiarity makes it suitable background music. But I find this kind of music very distracting when I am writing, even though it does not affect me that way any other time. It doesn't matter what kind of music they play when my mind is just idling. Only when I am thinking something out and trying to get it down on paper do *koto* and *shakuhachi* music break in on my thoughts and slow my mental gears.

It is not that I dislike traditional Japanese music by any means. Then why does it bother me so when I am trying to write? For a long time I didn't know why. In fact, it seemed like just an odd coincidence, and I got so I automatically turned the radio off whenever traditional music came on.

Blame it on the brain

Recently, however, I have learned that my affliction is not uncommon, and that it is because of how the Japanese brain functions. My source of information is a book entitled *No no Hakken* (Discovery of the Brain), a report on more than 20 years of research by Dr. Tadanobu Tsunoda of the Tokyo Medical and Dental University. This book is not a treatise on the structure of brain neurons but an exploration of how the brain hears language and various other sounds.

Research on the functions of the left and right hemispheres of the brain has

been popular since the latter half of the 1960s, and scientists everywhere have conducted a wide range of studies on how the two hemispheres differ. Dr. Tsunoda studied the differences in left and right brain functions in terms of hearing. He had his subjects wear stereo headphones and played different sounds on the two sides. On the right side, for example, he would send a single sound such as "a" and the subject was instructed to tap a key in rhythm with the sound pattern. At the same time, noise would be input on the left side, first at a very low volume and then gradually louder and louder. At a certain point the subject would lose track of the "a" sound in his right ear and his tapping would become erratic and uncertain. Next the sides were reversed and the test repeated, the rhythmic sound on the left and the noise on the right.

Dr. Tsunoda found that there was a significant difference in the noise level required to distract the listener from the "a" sound depending upon whether it was being heard by the left ear or the right ear. Since sound stimuli, like most things, are handled by the opposite side of the brain, a person who could keep track of the "a" sound when it was coming into his right ear would be "listening" with the left side of his brain and vice versa.

Scientists are generally agreed that it is the left side of the brain that comprehends language and the right side that "listens" to music and other non-language sounds. After testing many people of various nationalities, Dr. Tsunoda concluded that the left and right sides of the brain function differently in different cultures. For starters, Japanese hear vowels differently than other peoples, both Western and Asian. All people hear combinations of consonants and vowels with the left side of their brains, but when it

comes to just plain vowel sounds, Japanese still hear them with the left side of their brains while everyone else hears them with the right side. According to Dr. Tsunoda, the only other people who hear vowels the same way as the Japanese do are Polynesian-speaking people.

No one really knows quite why there is this difference. However, because second-generation Japanese living in North and South America have Western-type hearing characteristics, Dr. Tsunoda postulates that a person's language-hearing pattern is molded by the language environment he grows up in.

Japanese is unusual in being a vowel-based language, and it contains numerous homonyms made up of the same vowel sound; i.e., the sound "ai" (pronounced like the English "eye") can mean love, pity, meeting or indigo. Japanese is exceptional for its many homonyms made up solely of vowel sounds. The closest approximations are such interjections as "Ah!" and "Oh!" Hence, when a non-Japanese hears a drawn-out "Aa—" sound it is heard by the right side of the brain as music rather than language.

Of instruments and insects

How, then, does this explain the trouble I have concentrating when they play Japanese music on the radio? In his book, Dr. Tsunoda writes that one late summer evening he was sitting in his study trying to design the next stage in his research but couldn't seem to get anywhere. Suddenly he realized that he was hearing a loud chorus of crickets through the open window. The din of their chirping was keeping him from concentrating. Dr. Tsunoda immediately tested himself to discover which side of the brain he was hearing the crickets' chirping with. Sure

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enough, it was the language-oriented left side, and because man employs language to think, the crickets' din was overloading the left side of Dr. Tsunoda's brain and blocking his thought processes.

This experience led Dr. Tsunoda to expand his research and he eventually concluded that the Japanese person hears a wide range of sounds with the language-centered left side of the brain: people crying, someone laughing, a child's pleas, the chirping of insects, birdsong, the murmur of running water, the wind, waves, rain and, yes, traditional Japanese music. The right side of the Japanese brain is more limited, hear-

ing primarily the sounds of such Western musical instruments as the violin and organ, mechanical sounds and undefined noise. By contrast, the non-Japanese registers emotional sounds and the sounds of nature with the music-oriented right side of the brain, while the left side of the brain is devoted exclusively to language comprehension.

Euphonious poetry

Dr. Tsunoda's findings went a long way in explaining why I find Western music so conducive to thinking and traditional Japanese music so distracting.

They also convinced me that the important role played in Japanese literature by the sounds of nature have their source in the way the left side of the Japanese brain functions.

To give an example from the tenth-century *Kokin Waka-shu*, one of our most ancient books of poetry:

*A-ki-ki-nu-to me-ni-wa sa-ya-ka-ni
mi-e-ne-do-mo ka-ze-no o-to-ni-zo
q-do-ro-ka-re-nu-ru*

I cannot see that autumn has come, but the wind surprises me with its tidings.

The author of this *waka* (31-syllable poem) senses the changing of the seasons from the sound of the leaves rustling in the wind.

Likewise, the chirping of crickets is a traditional motif for loneliness and misery. In the *Shin Kokin Waka-shu*, a thirteenth-century anthology, a poet laments:

*Ki-ri-gi-ri-su na-ku-ya shi-mo-yo-no
sa-mu-shi-ro-ni ko-ro-mo ka-ta-shi-ki
hi-to-ri ka-mo ne-mu*

The crickets cry this frosty autumn eve as I spread my cloak and lie down alone.

Dr. Tsunoda suggests that reason is clearly distinguished from nature and emotions in the non-Japanese brain, but that reason, emotion and a sensitivity to nature are all combined in the Japanese brain. This in no way implies that one type of brain is better than the other. Neither is it possible to explain cultural characteristics solely by the differences in the way the right and left hemispheres of our brains function. Yet Dr. Tsunoda's findings are indicative of the fact that national and cultural characteristics are often rooted in physical and psychological phenomena that we tend not to notice, and tracing these characteristics to their sources can contribute to further mutual understanding among us all. ●

(This is the fourth of six parts.)