Everybody has heard that it is hard for Japanese speakers to learn English, and vice versa. If this is so, why? Usual explanations have to do with structural differences like right-branching versus left-branching structures, or the very different vocabularies of the two languages. While these features present obstacles, I suspect that the a greater problem arises from neither structure nor vocabulary, but instead from the different sounds of the two languages. To put it simply, Japanese speakers and English speakers cannot hear each other.

I discussed hearing with a Japanese friend who reads and writes English fairly well, but who is shy about speaking English. I told her about my experiences with hearing. English comes through to me as clear as a bell, even at a distance in a crowded train. But Japanese seems not loud enough, muffled somehow, so that I cannot distinguish the sounds and have trouble playing them back in short-term memory.

My friend said she has a different experience. To her, Japanese is loud and clear. She hears Japanese as a continuous flow whose meaning is instantly complete. But English is an unreliable thing that comes through in fits and starts. She gets some words but not others. The experience is difficult to describe and definitely uncomfortable, even scary. When you are talking with someone, you want to exchange meaning, not miss half of it.

So I said, “When you know you are going to hear English, can't you just set your ear to expect it?” She laughed. “No, of course, I can't. If I knew how to do that, I could get rich teaching my method. And anyway,” she added mischievously, “you are supposed to be the expert. You tell me how to hear English!”

Unfortunately, hearing a language is not something you can do by will power. It is a mostly automatic neurological process. The only good news is that neurolinguists have been studying it lately. Let us review what is known.

**Physiology of hearing**

The human voice begins as vibrations of air produced by the vocal cords. The sound is changed in the vocal tract, consisting of the larynx, pharynx, mouth and nose. These are the acoustic chambers that form the frequencies and overtones that we think of as voice quality. They are controlled by muscles activated—very rapidly and subtly—by the brain. The neuronal patterns that activate these muscles are also involved in interpreting speech, so the complex neural processes of speaking are matched in hearing.

Starting at a very young age, as you hear your mother tongue, your brain develops patterns of connection that sharpen your sensitivity to the sounds of your native language or languages. The vocal distinctions of your native languages are heightened. The essential sounds become “attractors,” with the result that an incoming speech sound is experienced as one or another attractor, but not in between. For example, the timing of Japanese is based on the *mora*, a syllable-like unit of sound that is experienced as either one or two beats long—but not in between. Familiar examples of attractors in English are the sounds /r/ and /l/. Speech sounds close to them are interpreted as one or the other, but not in between. Phonologists refer to this pre-sorting as “phonological categorization.”

The usual experience for a monolingual speaker is that if a speech sound cannot be interpreted as one or another of the available attractors or categories, it is interpreted as noise, not as a speech sound at all. Here is where we find trouble between Japanese and English, because there are many subtle differences that make English very difficult to hear for Japanese speakers.

The concept of the distance between languages has perplexed linguists because it is difficult to define. How should we measure the distance between languages? By comparing grammar and vocabulary? By checking their relations within an imagined family tree of languages? There is no easy standard. Setting theory aside, the American Foreign Service Institute simply counts the number of weeks required for a native English speaker to learn a foreign language (these are individuals who have been chosen for full-time study because they seem to have an aptitude for languages). In FSI terms, German is 20 weeks away from English, and Japanese is a full 44 weeks away. These program lengths result from experience, not theory. When a theory is developed however, it will have to include phonological differences.

Japanese and English speakers time their speaking differently, use loud and soft sounds differently, and use the vocal tract differently. These differences are complex and interrelated, and I have found no systematic description of them. My impression is that most English speakers use the nasal cavities less, use the mouth more and shape the throat differently from Japanese speakers. If vocal tracts were pipe organs, English and Japanese speakers would set the stops all differently. And of course the stops are set differently for hearing, too.

**Differences are scary**

It is the differences that are scary. When you are asked to learn a language that you cannot hear clearly, it does not seem like a language. We are creatures of habit, and we usually expect to hear language sounds without even trying. Not being able to hear destroys the very fundamental condition that is most necessary for ease of learning. For people who are completely accustomed to understanding speech sounds without effort, panic is a natural outcome. The experience is independent of intelligence and education. It is the experience of not being able to trust your ears.

Actually, different people suffer different degrees of hearing specificity. A few lucky people are not hampered by the inability to hear foreign sounds. They do not even understand why the unhearing masses have a problem—but that is a discussion for another column.

The scariness of English is so pervasive in Japan that it is simply assumed. It gives rise to the idea that English is a very difficult language to learn. That, however, is an intellectual interpretation of an experience that hits the emotions, not reason.

Because the inability to hear native English sounds is so scary, the understandable remedy has been to use native Japanese speakers to teach English structure and vocabulary, and to shy away from attempts to speak and hear. This is not a wrong-headed strategy that can be corrected by an act of policy; it is natural behavior to cope with a gut-level emotional reaction. That reaction must be taken into account in any solution.

There are no easy solutions, but there are some things we can do. Students who have mentally given up on learning English, if they understand what is spooking them, may be able to face the problem directly and begin to solve it. One means is simply redoubled effort. Japanese teenagers and adults can learn to hear the phonology of English by dint of great effort and much repetition. Determined people do it by finding useful ways to practice. Good teachers can help by fitting students up with materials tailored to their needs.

Another, more long-range solution is to begin teaching English as early as possible, when the brain still has a higher degree of phonological receptivity. The best time to begin is earlier than middle school and, indeed, earlier than primary school if the resources are available. As I have said before, language learning begins in the womb.

Most textbooks seem to assume that speech sounds are universal and completely interchangeable between Japanese and English. Many language courses ignore the basic differences. But it will be helpful if educators and bureaucrats recognize that English is scary to that majority of Japanese students whose hearing is set only for Japanese. Such recognition might lead us to temper language programs with wisdom and mercy.

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*This series of columns is an attempt to reconcile language teachers, theorists and bureaucrats. Readers are invited to write The Daily Yomiuri or e-mail mrchilds@tokai.or.jp. The column will return on March 5.*

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