Have you always been interested in other languages?
I’ve been interested in other cultures, but I didn’t become aware that I had any language aptitude until I was in college and studied abroad in Poland. I grew up monolingual. I wish I had been exposed to more languages as a child.

When did you become interested in dying languages in particular? Do you remember the first one you studied?
I was a graduate student in linguistics when I met my first speaker of an endangered language in a small village in Lithuania. He spoke Karaim, which is estimated to have fewer than 100 speakers. I interviewed and recorded him, and that started my fascination.

How many languages are endangered? Can you give us a sense of the scale of the crisis?
There are about 7,000 languages spoken in the world today, and by current estimates, about half of them could go extinct in this century. That’s a rate of roughly a language every two weeks. About 80 percent of the world’s population speaks one of the 84 major languages.
But there are nearly 7,000 other languages, and each one of them is incredibly rich in its history, its mythology, its science. And most of them have never been written down, and they’re not recorded anywhere, so you can’t find them in a library or database. The information is only in people’s memories, so in that sense it’s very fragile.

Imagine if half of the important architectural monuments were going to be demolished in this century. Imagine if the pyramids and the Notre Dame cathedral were going to be demolished. These are universally recognized as treasures that belong to all of humankind. But a language is a much older and more intricate and complex monument to human genius than anything we’ve ever built with our hands. We are all going to be impoverished if these ideas are lost.

**What exactly are we losing?**

We don’t even know what we’re losing. I think we suffer from what I call a science bias—that if there is anything worth knowing, science knows it. But this is not the case. The Harvard biologist E.O. Wilson has pointed out that something like 80 percent of the plant and animal species in the world have not yet been “discovered” by scientists. This doesn’t mean that people don’t know about them; it means that they haven’t been taxonomized in our system of science. Indigenous people know intimately the plants and animals that live in their ecological niche. They understand how living things fit into a holistic system, what the dependencies are among them, the interactions, the various interlocking cycles. So there is an immense body of scientific knowledge encoded in indigenous languages, and in many cases it’s more sophisticated than what science knows.

And there are also cases where scientific information held in indigenous communities is ahead of what science knows. The Halkomelem Musqueam people of British Columbia are a river-based people who know a lot about fish. There were four fish that they grouped together under a single label. In our English classification, we call two of those fish salmon and two of them trout. From our English point of view, we might say that the Musqueam people got it wrong. But a genetic study in the 1990s revealed that all those fish do belong to the same species. That’s not to say that folk knowledge is always right, but it is the product of millenia of close observation of nature, so it can be more precise than what science knows.
Are we losing more than scientific knowledge when languages die?

Language extinction is also a deeply personal issue for many of the people I’ve interviewed. I have worked for a number of years with reindeer herders in Siberia, the Tofa people. They have survived in one of the harshest environments in the world, in a place so remote you can only get there during certain seasons of the year, by helicopter. They know everything there is to know about their environment.

They’re losing a lot of things as their language goes extinct. They had a creation myth that involved the world coming out of a duck’s egg. That’s been forgotten. They had a lunar calendar that very precisely linked up the seasons, the astronomical events, and the plant and animal cycles—and that was more precise than our solar calendar and didn’t need to be reset every four years. They’ve lost that. They had a linguistically encoded mental map of their terrain that was more precise than anything cartographers have produced using satellite photography for their territory. And they had a wonderful system that classified reindeer along four parameters.

And it’s fair to ask why we can’t just translate all this into English. I could take a word like “eder” in their language, which means “a three-year-old uncastrated, domesticated, rideable reindeer” and express that in English (as I just did). But languages are the product of millennia of fine-grained observation and packaging of information into hierarchies and taxonomies. These languages are like trees. They organize information into branches. When people shift over to speaking global languages, it all gets flattened out into a puddle.

How do you identify language hotspots around the world? Where are you focusing your attention now?

Inspired by the “biodiversity hotspots” model adopted in conservation biology, I coined the term “language hotspot.” Working with linguist Greg Anderson, we identify them by three criteria: high diversity (not just many languages but many language families), high levels of endangerment, and low levels of scientific documentation. We’ve identified 24 hotspots so far and expect to find more. With support from National Geographic and our own non-profit, the Living Tongues Institute, we are embarking on a series of expeditions to visit the language hotspots, meet the last speakers, and record some of the wisdom and knowledge they are willing to share with us. It’s been a great adventure—so far, we have visited Australia, Siberia, India, and Bolivia. This year we’ll be in Paraguay, Oklahoma, and Papua New Guinea.

You’ve said that “5-, 6-, 7-year-olds are the true decision-makers” in whether a language is spoken or abandoned. Why is that?

Language change happens from the bottom up, and children drive it. Adults are basically bystanders to this process. If a community wants to keep its language, it has to raise the popularity, usefulness, and prestige of that language in the eyes of the youngest members. It can do so by expanding the language into new domains such as text messaging, the Internet, videos, games, and so on, and by cultivating pride in the language as a unique cultural possession. Children do not have to give up one language to speak another. They can be smarter by being bilingual.

What is it like to speak with the last speaker of a language?

It’s really amazing and humbling to have the...
opportunity to meet the last speakers of a language, and I do feel an enormous responsibility. Many times, the recordings I make of these speakers are among the only recordings available. Sometimes they’re the first recording of a language, and in some cases they are what will be in fact the last recordings ever made of fluent speakers.

Are you hopeful about the future of indigenous languages?
I am. If we can show people that the world’s languages are in crisis, that they contain vast bodies of knowledge that we have yet to appreciate, and that they’re eroding and disappearing very quickly, they want to do something. And this is a field in which, with a few years of training, you can go out and work on a language that very few linguists or in some cases no linguists have worked on before.

Is there a way for students to get involved now in the effort to document endangered languages?
Most students enter college not knowing anything about linguistics at all. They think it means you’re a polyglot; they don’t understand that it’s the science of language. High school students can start to learn about linguistics now, even if it is not available in their classes, by visiting some of the many Internet-based resources. [Editor’s note: see sidebar.]

There are many opportunities in the U.S. to find out about local Native American languages that may be endangered or undergoing revitalization, such as Ojibwe (Anishinaabemowin) spoken in Michigan, Lenape in Pennsylvania, and Cherokee in North Carolina. It matters to all of us that we are losing some of humanity’s most valuable, most ancient knowledge, and we can all contribute to making the world more multilingual.

Learn More


**Language Hotspots**
www.languagehotspots.org

**The Linguists Documentary Film**
www.pbs.org/thelinguists

**Living Languages Digital Dialogue**
www.poptech.org/lldd

**The Living Tongues Institute for Endangered Languages**
www.livingtongues.org

Illarion Ramos Condori, a speaker of the secret Kal-lawaya language of Bolivia, demonstrates his knowledge of medicinal plants.