

Out on a limb over language

Linguist **Daniel Everett** went to Brazil as a young Christian missionary to work with the Pirahã indigenous people. Instead of converting them, he told **Liz Else** and **Lucy Middleton**, he lost his faith and his family, and provoked a major intellectual row

We hear you've had some unusual visitors recently.

Two Hollywood producers flew out to see me – with a letter from Larry Turman, who produced *The Graduate*. They're interested in the story of my life. I'm also waiting to hear whether the Brazilian government will permit PBS Nova and the BBC to make a documentary about the Pirahã, who live in the Amazon basin. They want to go to the village where I've lived and worked for nearly 30 years.

How did you get involved with the Pirahã?

My wife Keren and I set out to become missionaries, but it didn't work out that way. We had to learn the language to work there but I became more and more fascinated by it, and eventually studied linguistics at "real" universities. After many years of living with the Pirahã I've learned a lot about their language and the problems it poses for linguistic theories. Their concept of truth also changed my entire religious persona. I went from being a Christian missionary to an atheist.

When did you stop believing?

In various stages. I arrived in Brazil in 1977, and by 1982 I was having serious doubts. Probably by 1985, after I had spent a year at the Massachusetts Institute of Technology, I had no more faith, but I didn't say anything about it for another 19 years.

Did you really not tell anyone – not even your wife?

No. When I did, we ended up getting divorced.

How did being with the Pirahã change your thinking?

They lived so well without religion and they were so happy. Also they didn't believe what I was saying because I didn't have evidence

for it, and that made me think. They would try so hard to understand what I was saying, but it was obviously utterly irrelevant to them. I began to think: what am I doing here, giving them these 2000-year-old concepts when everything of value I can think of to communicate to them they already have?

Working with the Pirahã has landed you in hot water professionally as well.

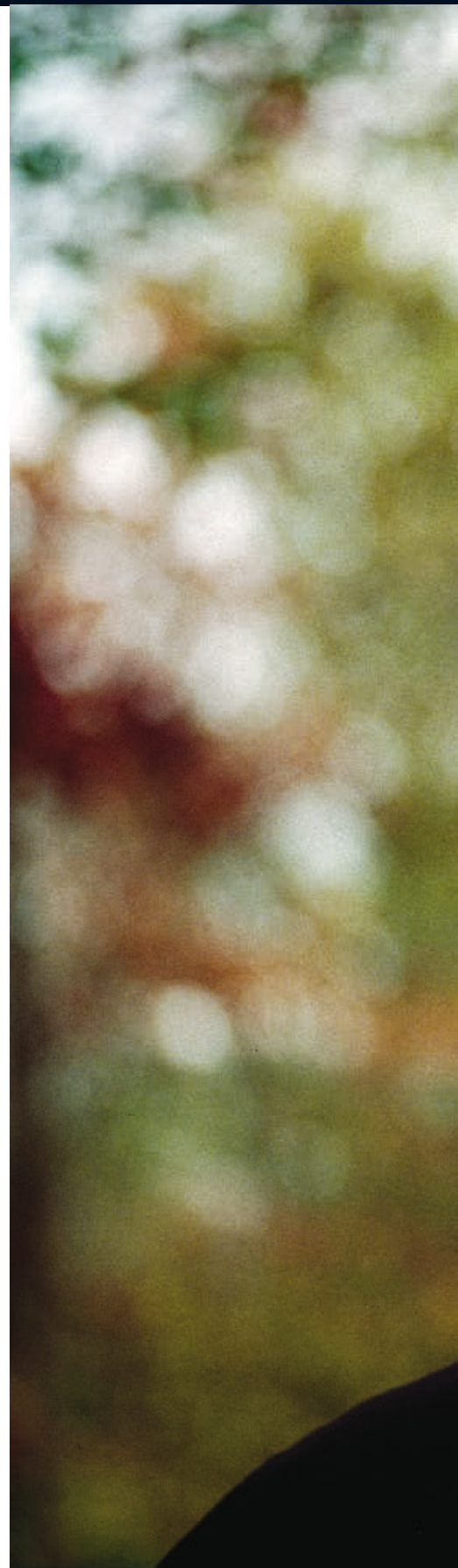
Yeah. I'm in trouble for putting forward theories based on my studies with the Pirahã that challenge the established order. One of the most publicised is my claim that they don't really have fixed words for numbers or colours. Worse still, I cannot find recursion in their language – the way we embed sentences containing other statements or concepts within sentences.

This seems to conflict with the views of Noam Chomsky, one of the fathers of linguistics.

Yes. Chomsky and I have had long discussions, and somewhere in the conversation he's going to say: if you're right, there's no difference between my granddaughter and a rock; rocks don't learn language, so obviously the ability to acquire language is inbuilt. Chomsky's approach is that we have innate knowledge of a basic grammatical structure, or syntax, that is common to all human

Profile

Daniel Everett is chair of linguistics, languages and cultures at Illinois State University at Normal. His upcoming book is *Don't Sleep, There Are Jaguars* (Random House and Profile Books, 2008). He and his family are the only non-Pirahã who currently speak Pirahã.





languages. Using a limited set of grammatical rules and a finite set of terms, we can produce an infinite number of sentences, including ones that have never been uttered before. For him, the killer argument is that without it, children could not acquire their native languages very quickly – hence the line about his granddaughter and the rock. Recursion is the reason that there are unlimited possible utterances in any language, so it must exist in all languages.

Why does it matter if Chomsky is wrong?

If he is wrong, it shows that the human ability to communicate is not reducible to the kind of “mathematical” system that Chomsky envisions. It means that language is something we gain by interacting with our fellow human beings, people who share our culture with us. I’m claiming that culture shapes grammar, that it can even affect the nature of what Chomsky called “core grammar” – the part of grammar that’s supposed to be innate. If it’s innate, it can’t be affected by culture. I say it can.

Are you a lone voice?

No. Geoffrey Pullum and Barbara Scholz of the University of Edinburgh, UK, wrote a recent paper where they laid out what they consider to be severe confusion in the approach of Chomsky and his adherents.

“If grammar is innate, it can’t be affected by culture. I say it can”

They argue that no one can, in principle, demonstrate that any human language is infinite – a core attribute of human language for Chomsky and his followers. All we can say is that for many languages, such as English, the most efficient grammar acts as though the language were infinite. That doesn’t mean the language is in fact infinite.

So where do you think language comes from?

I think there could be different sources, none of which involves universal grammar. We’re smart and we have big brains; we can remember stuff and we can process information differently from other animals. Human beings evolve in social groups and they have to be able to point out objects to one another and to say something about those objects. There has to be hierarchical organisation of the information that’s transmitted. But there is no need for recursion or hierarchical organisation to be a

property of language per se – though it must be a property of the brain. If I'm right, all brains have recursion, but not all languages do.

Why wouldn't a language have recursion if the brain has it?

It could be for cultural reasons or because of other functional pressures. The Pirahã live almost entirely in the present (*New Scientist*, 18 March 2006, p 44) so they have much less need for the complexity that recursion provides. I think I've shown that the Pirahã use recursive reasoning – for example in their stories – but you don't find recursion at the level of grammar. Others have proposed that recursive structures evolve from the kind of structures that the Pirahã have – that they represent an earlier state – so there's nothing really unusual about Pirahã language.

Does that imply they are less evolutionarily advanced than other people?

How do you evaluate "less advanced": does it mean they're stupid, or that their language perfectly fits their cultural needs and constraints? If you see that their language works exactly right in the cultural context and ecological mix in which they find themselves, then there is no sense in which they're inferior. When Pirahã have been kidnapped and raised outside the village, they do just fine and even speak Portuguese, with plenty of recursion. So there's no sense they're

“Field research is vital for being a linguist. You can't just read articles”

biologically inferior or stupid. When I walk with them in the jungle, the Pirahã think I'm incredibly stupid because I don't know my way back to the village, and I can't recognise the behaviour of different animals, or kinds of trees. I have no idea of what they can be used for. Any Pirahã child knows all this stuff.

Would linguists do a better job if they got to know the people who speak the languages they are studying?

Field research is a vital part of being a linguist, and if language and culture really are interconnected in the way I'm saying, you can't find that out by reading articles in your office. That includes Chomsky – I think he should have done more. Fieldwork is where the bulk of the lessons we're going to learn are. Recently, Steve Pinker said that we all know culture doesn't affect grammar in the way I say it does. I find that surprising when no one has investigated it.



Has Chomsky changed his view at all?

In a sense. He doesn't believe in all those specific rules he has proposed over the years, but he still believes grammar cannot be derived from any other cognitive capacity, and stands alone as a module of the brain that is encoded purely by genes. This is not going to change.

You have been branded a racist. Why?

It happened late in 2006. Brazilian river traders have said the Pirahã act like monkeys and talk like chickens, and I quoted them on a website somewhere. Maybe I wasn't clear enough in condemning them for saying that. The people who made these criticisms of me know very well I don't believe it, but they wrote to the Brazilian government. I don't know what's behind it. I called some of my friends in the government and they said there's a full investigation going on and that the new powers in Brasilia want to block my access to the Pirahã until this gets straightened out.

I have permanent residence in Brazil so they can't bar me from going there, but when I leave, the rumours start up again and I don't even know about them until they're so far along it's difficult to address them. This has to be sorted if any continuing research is going to be done, and it's really crucial that it is.

What sort of a relationship do you have with the Pirahã?

I count them as some of my very best friends. They are wondering why I'm not there right now. The last time I left, one of the young men said: "I really like you, please don't leave, just stay here." Part of that is because I have medicine, but part of it is because I'm the only foreigner they know that just sits around and can talk to them.

Did your children play with the Pirahã children?

My daughters would take off in the morning in a canoe with Pirahã girls and be gone from almost sunup to sundown many times. And my son Caleb had his own little bow and arrow and would run off playing with the Pirahã children all day. They could all speak Pirahã at one time, but after many bouts of malaria we stopped taking them quite so much.

Now they don't know what to make of all the controversy. I have a daughter who's in Brazil and she's always being told: "You're the daughter of that racist guy." Caleb is assistant professor of anthropology at the University of Miami in Florida, and he's done five years of his own fieldwork on another language in Brazil. He's the best linguist in the family. He grew up in the village, so this is all second nature to him – the fieldwork and figuring out these languages.

It sounds like you were a close family in the Pirahã's village.

Yeah, and that makes it very difficult because now two of my children aren't speaking to me. They're all very strong believers. My son is very intelligent, he knows all the arguments around Christianity, but he's still a theist. He thinks I've made a fundamental error in abandoning that, and this is very painful.

Do you think they'll come around to your way of thinking? Can you make amends in their eyes?

No, I don't know how. They clearly all love me but they just don't think it's healthy for me to be around them or their children.

What does the future hold for you?

I have enough data collected on the Pirahã to occupy me and any number of researchers for years to come, so I'm trying to get funding to get it all onto the web, so people can do their own experiments with it and listen to the hundreds of hours of the language being spoken or sung. And I just got married again.

Do you ever think you might be wrong about the Pirahã?

I admit the possibility, but I don't lie awake at night because I have done my very best. I've been honest about what I have claimed. The only thing that would keep me awake at nights is if I felt guilty that I had fibbed about something and was going to be found out. I think that what we need is more research programmes that look for exactly the connection between culture and grammar that I'm talking about.

What are you're most proud of?

Oh, my three children. ●