

Building a publically-accessible data base of Piraha

1. The need for the data base

Regarding David Pesetsky's attempt to defend Chomskyan orthodoxy by turning the "early" Everett against the later Everett, it is based on a pretense, namely, that what the early Everett published on Pirahã language are facts of Pirahã grammar rather than interpretations of Pirahã speech by someone still under the influence of the spell of Chomskyan ideas about grammar. The only empirical data on Pirahã language unencumbered by such confounding factors would be a huge corpus of good-quality video recordings of Pirahã communicative interactions in real-life context. CHE, May 20, 2012

1.1. Background of Piraha studies

The Piraha language has been the object of linguistics studies since the SIL missionary Arlo Heinrichs first established contact with them in 1959, with the objective of learning to speak the language, analyzing the grammar, and translating the New Testament into Piraha. Heinrichs made some progress on each of these objectives, but because the situation was initially monolingual and there was no previous work to draw upon, aside from small word lists, when Heinrichs departed the Piraha area in 1967, little had been produced beyond a few attempts at Bible translation, a phonemic analysis, an orthography, and tentative notes on sentence and word structure. A few texts were collected and translated.

In 1967 Steven Sheldon began work among the Pirahas, with the same objectives as Heinrichs. He worked among the Pirahas almost continuously until 1976, publishing a paper in the *International Journal of American Linguistics* on Piraha tonal perturbations and producing several manuscripts on Piraha grammar and phonology. He collected and translated many texts in the language, a number of which were parsed later by the PI and are archived at the Massachusetts Institute of Technology. A sample of that collection of texts is appended to this application.

In 1977 the PI and Keren Madora (formerly Everett) entered the Piraha area as SIL members, serving with SIL until 2001, when they resigned from this organization (some of that history is recorded in Everett (2008)). In the 25 years since the PI first began work among the Pirahas, many audio recordings and transcriptions were collected. However, in the course of the PI's many moves to and from Brazil, the US, and England, many of the transcriptions were lost or transcriptions are available but recordings were lost.

In 2004, while Professor of Phonetics and Phonology at the University of Manchester, the PI had all of his available recordings of Piraha digitized, 101 hours of controlled elicitation of sentences and discourses. In addition to these 101 hours of digital audio, Essential Media of Australia recorded roughly 20 hours of high-definition video + audio of Pirahas conversing and telling stories to one another and

to the camera. These videos were made in conjunction with the documentary film project, *The Grammar of Happiness*, funded by the Smithsonian Channel, Arte France, and the Australian Broadcasting Corporation.

The PI has also digitized his field notebooks. Some of those notebooks are vernacular transcriptions of some of the recorded audio files. Other parts of the notebooks no longer correspond to any extant audio or video files, but are nonetheless replete with elicited sentences and texts following various field guides and questionnaires.

Very little of this large amount of Piraha data, documenting the history and language of the Piraha back over fifty years has been processed in such a way as to be accessible and useful to other researchers. A great deal of work needs to be done to prepare and digitize all of this Piraha data. This is the purpose of the present project.

This project is urgent and important for several reasons. First is that the Piraha language and culture are endangered and confronting new socio-economic pressures. The Brazilian National Indian Foundation, FUNAI, has built a permanent post among the Pirahas involving several new concrete and wood buildings, regular visiting staff of non-Piraha speaking Brazilians, a school, a clinic, electricity, and so on. Many Piraha today, since 2010, watch tv and eat rice, manioc meal, cookies, and other foods brought in by the government. The main difference between this new form of contact and previous contacts between Pirahas and outsiders is the permanence and authority of the government employees who have taken up residence with the Pirahas. The benefits to the Pirahas include regular health care. This is partially responsible for the rapid growth of the population from 350 or so in the late 1990s to over 700 today. Infant mortality has fallen sharply.

On the other hand, the presence of Brazilians on a regular basis, Brazilians who are there to teach the Pirahas about Brazil, to supervise their lands, and so on will almost certainly lead to linguistic and cultural changes in the short, mid, and long terms. Therefore, this will almost certainly be the last generation of monolingual Pirahas. It is essential to have a record of the language as it has been spoken until now, as both a record and a supplement to any future linguistic or cultural research among the people.

Another reason for the importance of this data base is the role that the Piraha language has played and continues to play in on-going debates about the nature of human language, from recursion to stress placement to discourse structure. It is vital that the data be made available for all interested parties to be able to search, analyze, and reach their own conclusions about the best analysis of Piraha grammar.

Another source of urgency for the data processing and archiving is that the PI is over 60, has moved into university administration, and will be beginning field research in another part of the world (Thailand) as of 2013. Therefore, there will not be many more chances for a project like this to be brought successfully to completion.

2. Composition of the data base

- HD professionally recorded videos

- Audio tapes and notebooks ranging back 35 years

3. Software and hardware required

4. Personnel

Prof. Dr. Miguel Oliveira

Experienced with the Piraha

Other qualifications

Undergraduate Students of the Federal University of Alagoas

Training of undergraduates

By Dr. Oliveira

Software

General Linguistics

By Dr. Everett

Piraha history and classification, phonetics, phonology

(including prosodic), morphology, pragmatics, semantics, and syntax.

In June of 2013, Everett will spend 2 weeks at the Universidade Federal de Alagoas, Brazil to offer courses on field methods and the Piraha language.

Jose-Augusto Diarroi-Piraha

For third year. Non-crucial but could be very helpful.

We would like to provide further training in Piraha grammar to Jose Augusto Diarroi-Piraha, known locally as "Verao" (from Instituto Linguistico de Verao). Jose-Augusto was born on the Maici River in a community of Diarroi women, Apurina men, and their children that was established by the Brazilian Servico de Protecao ao Indio in the first two decades of the 20th century. Apurina (Maipurean) men were taken from the Apurina homelands more than 1,000 miles away along the Purus River to help "pacify" the Pirahas. They were left on the Maici, among the Pirahas when the SPI finished its work. Taking wives from the nearby Diarroi (Tupi-Guarani) community near the Maici Mirim river, they established their own village, called "Ponto Sete" (Point Seven). In about 1970, a Piraha man, known in Portuguese as Otavio, married the Diarroi-Apurina woman, Raimunda, and they had several children, all living at Ponto Sete. In 1981, Brazilian river traders (of the Colario family) paid Tukaaga Piraha and some of his Piraha male relatives a new shotgun, cachaca, and trade goods (cloth, matches, fishing line and hooks, etc) to kill the Apurina-Diarroi, because the latter tried to stop the entry of the Colario family into their section of the river, which was rich in Brazil nuts, latex, copaiba, and other jungle products. Tukaaga killed (this story is related in Everett (2008)) Joaquim, a Parintintin man who had married into the community. Tukaaga then shot one of the Apurina men, Tome, who survived, after several months in a Brazilian hospital.

After a period of several months following the murder, the Pirahas as a group expelled all the residents of Ponto Sete (and one other family that had moved downriver to live by themselves at a place known as Terra Preta). All of Otavio's family left, including Otavio initially, though he eventually returned to the

Pirahas, since he spoke very little Portuguese and could not abide living in the Brazilian culture of the Marmelos river, where the survivors had relocated.

At this time, Jose-Augusto was a young boy. His first language was Portuguese, though he and his mother and siblings could understand his father's Piraha and make themselves understood, haltingly, in this language. About 2001/2, after spending nearly 20 years outside the village, speaking Portuguese exclusively, Jose-Augusto was employed by the Brazilian government to run a clinic among the Pirahas, since he had completed courses in basic health and was a certified "microscopista," one qualified to take blood, stool, and urine samples to check for malaria, parasites, and other maladies.

Jose-Augusto expressed to the personnel of Essential Media in 2010 his desire for me to help him with Piraha grammar, writing system, and so on to facilitate his work in the village. His fluency in Piraha has improved tremendously over the past several years. He is far from a native speaker, but he is able to make himself understood well to the Pirahas and he understands most of what they say.

We would like to bring Jose-Augusto from Humaita, Amazonas (closest city to the Piraha village where he often resides) to the University of Alagoas in Maceio, each of the three years of the project for 1-2 months of training with other students. He knows Dr. Oliveira well. And the PI has known him almost his entire life. He is eager for more training that could help him among the Pirahas, especially help in understanding Piraha grammar.

5. Methodology

6. Budget

Year 1

Year 2

Year 3