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# SCIENCE & SPACE

## Tribe has best excuse for poor math skills

Language lacks words for most numbers

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**WASHINGTON (Reuters) -- Some people have a great excuse for being bad at math -- their language lacks the words for most numbers, U.S.-based researchers have reported.**

Members of a tiny, isolated Brazilian tribe have no words for numbers other than "one or a few" or "many" and seem to have trouble counting, the researchers reported.

The Piraha tribespeople are clearly intelligent, so the finding opens questions into how language may affect thinking, the researchers say in this week's issue of the journal Science.

Peter Gordon of Columbia University in New York and colleagues studied the Piraha because there had been reports about their unique use of numbers.

"I was able to take three field trips ranging from one week to two months living with the Piraha along with Dr. Daniel Everett and Keren Everett, two linguists who have lived and worked with the tribe for over 20 years and are completely familiar with their language and cultural practices," Gordon writes in his report.

"They live along the banks of the Maici River in the Lowland Amazonia region of Brazil. They maintain very much of a hunter-gatherer existence and reject assimilation into mainstream Brazilian culture," he added.

There are only about 200 Piraha and they live in groups of 10 to 20. Their words for numbers appear limited to "one," "two" and "many," and the word for "one" sometimes means a small quantity.

"There is no word for 'number', pronouns do not encode number (e.g., 'he' and 'they' are the same word), and most of the standard quantifiers like 'more,' 'several,' 'all,' 'each' do not exist," Gordon wrote.

**Performance deteriorates**



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Gordon got the tribespeople to take part in some number matching tests.

"In all of these matching experiments, participants responded with relatively good accuracy with up to 2 or 3 items, but performance deteriorated considerably beyond that up to 8 to 10 items," he wrote.

"Piraha participants were actually trying very hard to get the answers correct, and they clearly understood the tasks," Gordon said in a statement.

While Piraha adults had difficulty learning larger numbers, Piraha children did not.

"One can safely rule out that the Piraha are mentally retarded. Their hunting, spatial, categorization and linguistic skills are remarkable and they show no clinical signs of retardation," Gordon added.

They also show some other unexpected differences from many world cultures.

"Not only do the Piraha not count, but they also do not draw," Gordon wrote.

"Producing simple straight lines was accomplished only with great effort and concentration, accompanied by heavy sighs and groans."

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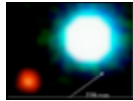
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