



NETWATCH: Free Journals For the Third World

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Tongues on the Brain

“Speaking in tongues,” or glossolalia—an intense, trancelike state where the speaker is ostensibly in direct connection with God—has been around for thousands of years.

Now psychiatrist Andrew Newberg and colleagues at the University of Pennsylvania in Philadelphia say they have captured glossolalia on brain scans. They recruited 5 black women from a local Pentecostal congregation, where speaking in tongues is common, and asked them to sing gospel songs and to speak in tongues. During each activity, the women were injected with a radioactive tracer that provided brain-scanning equipment with a snapshot, in effect, of which areas were most active as indicated by blood flow.

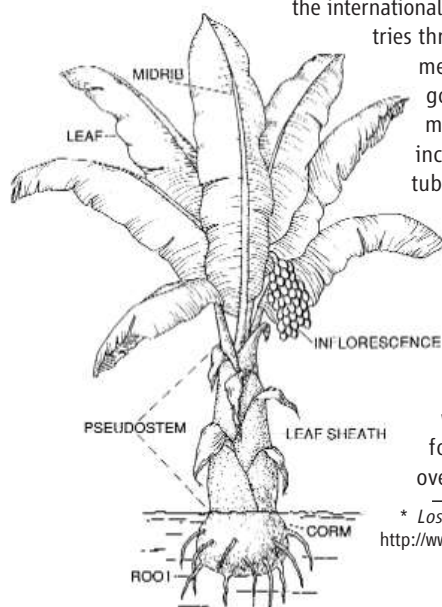
The scientists report in the November issue of *Psychiatry Research: Neuroimaging* that compared to when the women were singing, frontal lobe function decreased during glossolalia. “The part of the brain that normally makes them feel in control has been essentially shut down,” explains Newberg. And there was increased activity in the brain’s parietal region, which he says “takes sensory information and tries to create a sense of self and how you relate to the rest of the world.” Both of these shifts are the opposite of what happens to the brain in a meditative state, he says.

Psychologist Michael Persinger of Laurentian University in Ontario, who has done brainwave research with glossolalia, agrees that increased parietal activity “would be associated with ... an enhancement of ‘touching’ sensations over the entire body—i.e., being touched by the ‘spirit.’”

GETTING AFRICA BACK TO ITS ROOTS

The enset of Ethiopia (below), which resembles a banana tree and has a thick trunk filled with pithy starch, was called “the tree against hunger” in a 1997 report by the AAAS (publisher of *Science*), which said it was “very likely the most unstudied domesticated crop in Africa.”

Nine years later, little has changed. The enset is listed among 18 indigenous African vegetables that have been largely ignored by scientists and agriculture planners, in a report released last week by the National Research Council. “[L]ack of research attention to them is a disgrace of our time,” says the report* on Africa’s “lost crops,” written by a group chaired by Norman Borlaug, the father of agriculture’s Green Revolution who now is at CIMMYT, the international maize center in Mexico City. With countries throwing their research funding into commercial non-native crops, little work has gone into improving the cultivation of many resilient and nutritious vegetables, including beans, nuts, melons, roots, and tubers, that traditionally formed the backbone of African diets. Nowadays, Africa’s most widely consumed vegetables are largely of foreign extraction, says the report. The only exceptions are cowpea, yam, and okra.



The 378-page volume is the second in a series. The first, in 1996, dealt with the ignored grains of Africa. Soon forthcoming is one on the continent’s overlooked fruits.

* *Lost Crops of Africa, Volume II: Vegetables* at <http://www.nap.edu>

Alpha Paper Producers

Despite all of its political turmoil, Harvard is still on top of the charts, according to the research trend-tracking *Science Watch* in Philadelphia, Pennsylvania. The ranking of the top 100 federally funded U.S. universities is based on numbers of high-impact (heavily cited) papers published in 21 fields of science and social science over the past 5 years. Harvard and Stanford are the usual leaders in *Science Watch*’s quadrennial roundup; this year, the University of California (UC), San Francisco, and the University of Pennsylvania make their first appearances on the highest impact list.

Tops in the Sciences, 2001–2005

University Number of Fields in which ranked in Top 10

1. Harvard University	15
2. Stanford University	13
3. UC, Berkeley	10
4. University of Washington	8
5. Massachusetts Institute of Technology	7
6. Yale University	6
7. UC, San Diego	6
8. Princeton University	5
9. University of Pennsylvania	5
10. California Institute of Technology	5
11. UC, San Francisco	5
12. Columbia University	5

In separate rankings of universities in nine fields in biology, Harvard and Stanford emerge as the most prolific high-impact paper producers in clinical medicine and immunology, respectively.

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Researchers in the poorest nations can nab a free pass to environmental science literature, thanks to a collaboration between the United Nations Environment Programme, Yale University, and more than 200 journal publishers. Announced on 30 October, Online Access to Research in the Environment (OARE) takes after similar projects to eliminate barriers to medical and agricultural publications. Educational organizations in 70 “low-income” countries can apply for access to full-text content from 1000 databases and journals, including *Science*, *Nature*, and *Ecology*.

In 2 years, organizations from slightly wealthier countries can join for a small fee. >> www.oaresciences.org