Culture Plays a Role in Dyslexia, Scientists Say

September 1, 2004 — LONDON (Reuters) - Dyslexia, a common reading and learning disorder, could be influenced by culture, researchers said Wednesday.

They discovered that a different area of the brain is affected in dyslexic Chinese children who read the character-based language than in western youngsters who use an alphabet language.

"The finding provides an insight ... into dyslexia by suggesting that rather than having a universal origin, the biological abnormality of impaired reading is dependent on culture," said Li Hai Tan, of the National Institute of Mental Health in Bethesda, Maryland.

The scientists used brain imaging techniques to look at areas of the brain in children with impaired reading.

Most studies of dyslexic Western children have focused on the left temporoparietal brain region, but the research by Li Hai Tan and his colleagues reported in the science journal Nature implicates different areas of the brain.

The scientists said the finding is important because it reveals brain differences in Chinese and English speakers with impaired reading.
It also supports the idea that strategies can be developed to stimulate the brain regions involved in dyslexia.

About 10 percent of the population may have some form of dyslexia, which causes difficulty in reading, writing and spelling. It tends to run in families but scientists say environmental factors may also contribute to it.

Last month Finnish scientists said they had found a gene called DYXC1 that they believe could be important in causing dyslexia.