UPI.com
100 YEARS OF JOURNALISTIC EXCELLENCE

Fancier cortex may be key to intelligence

Published: July 20, 2009 at 8:34 PM

When it comes to intellectual potential, it may not be the brain's size that is important, but how many cortical modules are available, U.S. researchers say.

In an article published in Current Directions in Psychological Science, Eduardo Mercado III of the University at Buffalo in New York suggests the development and number of these vertical columns of interconnected nerve tissue -- parts of the brain called cortical modules -- may help explain the variations in how people learn skills and why the ability to learn new skills changes with aging.

How cortical modules form and function, he says, is key to what he calls cognitive plasticity -- the ability to learn new things. Since the network of neurons forming cortical modules develop over time, new techniques may help increase cognitive plasticity.

This creates the possibility of finding ways to increase intelligence and even rehabilitate brain damage. However, Mercado warns many factors need to be considered.

"New technologies for increasing cognitive plasticity have ethical implications far beyond those raised by doping in sports," he says in a statement. "The phrase 'changing your mind' may soon take on a whole new meaning."