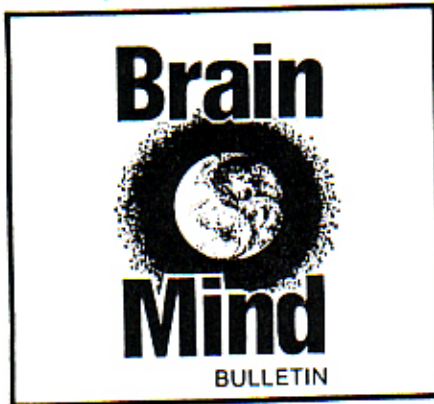


# Body sides switch dominance every 2-3 hours



June 16, 1986

Volume 11, Number 11

## Brain unified by chance to choose?

Move over, left brain and right brain—the for the “willing” brain.

A University of Massachusetts educator offers a new brain model for creative behavior. Portia Elliott emphasizes that “whole-brain teaching” must include letting the prefrontal cortex have its say—in the classroom.

In a recent article, Elliott urged math educators to go beyond the right- or left-hemisphere metaphor. They should also pay attention to the perceptual and psychomotor systems. And, even more important, they should give students a chance to exercise their “prefrontal volition” in choosing strategies and tasks.

She pointed out the weight of research now showing that creativity, at first deemed a right-hemisphere trait, involves both sides. But what directs their cooperation?

As Elliott sees it, there is a will involved

Continued on Page 2

A startling new finding: Not only do the brain hemispheres switch dominance every 90 to 120 minutes throughout the day, but the sides of the *body* switch regularly in their dominance of sympathetic tone.

Researchers sampled nervous-system transmitters by taking blood from both arms every 7.5 minutes for periods of three to six hours. They found that the catecholamines—dopamine, norepinephrine, epinephrine [adrenaline]—were more concentrated on one side or the other every two to three hours.

“This discovery offers a real window on the relationship of mind to metabolism,” said David Shannahoff Khalsa. Michael Ziegler, Brian Kennedy and Khalsa conducted the research at the University of California, San Diego, School of Medicine.

The investigation followed up on earlier studies at the Salk Institute showing left and right alternations in nasal breathing coincident with the basic rest and activity cycles (*B/MB*, Jan. 3, 1983). Plasma blood levels of norepinephrine rose seven minutes before the breathing shift.

The study suggests that the central nervous system controls the peripheral through the hypothalamus, known to affect the nasal mucosa and catecholamine levels.

Like Ernest Rossi (*B/MB*, May 26), Khalsa sees the cycles as a key to voluntary alteration of metabolism, mood and cognitive style. Identifying the crossover point is especially significant.

“My chief interest is in finding measurable changes that correlate with yogic medicine. The yogi, of course, tries to maintain a ‘life force’ understood to be the optimal balance of the two sides.”

His research thrust is now directed through the Khalsa Foundation for Medical Science (Box 2708, Del Mar, Calif. 92014).



Neuroscientist advisers include Pierre Fluor Henry, Nobelist Floyd Bloom and others from Scripps Institute, the University of California system and the University of Toronto.

The findings were reported in *Life Sciences* 38: 1203-1214.

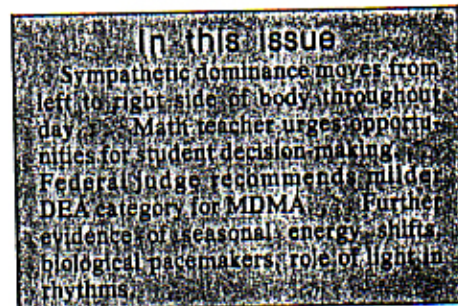
## Another Type A: healthy, charismatic

The correlation between personality and heart disease is not a simple one. Some of those who are evaluated as Type A appear unusually healthy, according to a recent study, and some Type B's are probably prone to heart disease.

The secret may be congruence of motivation, social skills, emotional responsivity and cognitive coping. Those who feel themselves in command and those who feel comfortable *not* being in command seem healthier than their competitive or frustrated colleagues.

“Independence seems to be a factor,” said Howard Friedman of the University of

Continued on Page 2



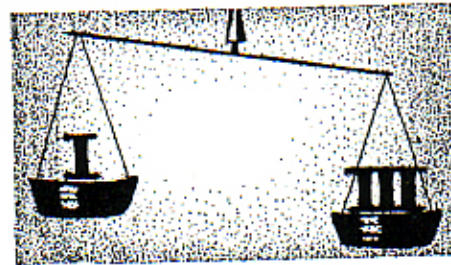
## Judge proposes more lenient schedule for MDMA

Administrative Law Judge Francis Young recommended May 22 that the Drug Enforcement Agency (DEA) reassign the substance MDMA from stringent Schedule I of the controlled substances category to the more lenient Schedule III. The shift would facilitate research.

The FDA administrator will make the final ruling.

In his 69-page opinion Young said the drug—used by a growing number of therapists prior to its being outlawed—is safe, has acceptable medical use and does not have a high abuse potential.

He rejected the DEA's claim that it had to abide by the views of its parent agency, Health and Human Services, pointing out that HHS based its statements of high abuse potential on the DEA's own recommendations.



Nothing in his opinion should be taken as critical of the DEA's emergency scheduling of the drug in 1985, Young said. That action, he stated, was based on evidence then available but “without opportunity for the presentation of countervailing evidence or argument.”

Pharmaceutical manufacturers supported the researchers' contention that Schedule I would make investigation of the

drug virtually impossible.

Regarding safety, the DEA argued that “there is no legitimate commercial manufacturer of MDMA in the United States.” Young said this equates safety with a corporate determination of profitable mass production. (Because MDMA was patented in 1914, there is no financial incentive for its manufacture.)

Physicians, Young said, are the only logical source for safety information. He summarized psychiatric testimony and lab findings.

He also pointed out that of two million reports of drug emergencies between 1972 and 1983, only eight mentioned MDMA. Young noted that the National Institute for Drug Abuse had earlier told the DEA that claims of high abuse potential were unsubstantiated.