Dancing and the Brain

Millions of Americans dance, either recreationally or professionally. How many of those who are ballroom dancing, doing the foxtrot, break dancing, or line dancing, realize that they are doing something positive for their bodies—and their brains? Dance, in fact, has such beneficial effects on the brain that it is now being used to treat people with Parkinson’s disease, a progressive neurological movement disorder.

“There’s no question, anecdotally at least, that music has a very stimulating effect on physical activity,” says Daniel Taras, MD, an HMS professor of neurology and director of the Parkinson’s Disease and Movement Disorders Center at Beth Israel Deaconess Medical Center (BIDMC). “And I think that applies to dance, as well.”

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Faculty First Person:
Bob Datta, MD ’04, PhD ’04

The work in my lab focuses on a core question in neuroscience: How is the brain wired to extract information from the environment and convert that information into action? To answer this question, my laboratory studies mice, specifically their olfactory system. The sense of smell is the most important sense for many mammals, including mice. We study how scents from food, predators, or mates trigger activity in specific neural circuits to enable mice to eat, for example, or to avoid being eaten. We think this work will teach us fundamental lessons about how the brain takes information and turns it into action.

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