

No lotus position needed: Neuroscience pushes meditation into the mainstream

September 5 2013, by Jeff Strickler

When the Rev. Ron Moor began meditating 30 years ago, he did so in secret. "When I started, meditation was a dirty word," said Moor, pastor of Spirit United Church in Minneapolis. "(Evangelist) Jimmy Swaggart called it 'the work of the devil.' Because of its basis in Eastern religions, fundamentalists considered it satanic. Now those same fundamentalists are embracing it. And every class I teach includes at least a brief meditation."

The faith community isn't alone in changing its attitude. Businesses, schools and hospitals not only have become more accepting of meditation, but many offer classes on it. Meditating has gone mainstream.

Why? "Because it works," Moor said.

Adherents have been saying that for centuries, of course, but now there's a difference: Scientists can prove it.

Propelled by technological breakthroughs in neuroscience enabling researchers to monitor [brain activity](#), the medical community is awash in studies showing that meditating has beneficial physical effects on the brain. Those studies are being joined by others demonstrating that advantages include everything from raising the effectiveness of flu vaccines to lowering rejection rates for [organ transplants](#).

"Meditation has become a huge topic" in medical circles, said Dr. Selma

Sroka, medical director of the Hennepin County Medical Center Alternative Medicine Clinic. "The health benefits are so strong that if nothing else, people should learn the [relaxation techniques](#)."

The practice is being embraced by an audience that isn't interested in its religious contexts, typically Buddhist or Hindu, but is fascinated by its mechanics and techniques. Sroka compared the West's co-opting of meditation to what happened to yoga, which came to this country as a spiritual discipline and has morphed into a form of physical fitness.

Some would-be meditators opt simply to ignore the religious element, said Mark Nunberg, co-founder of Common Ground Meditation Center in Minneapolis. Although his center is a Buddhist organization, at least half the people who enroll in classes are there just for instruction in meditation, he said.

"It's the same practice" whether it involves religion or not, he said. "It's training the mind to be in the present moment in a relaxed way. It's the most practical thing in the world; some might even say it's just common sense."

WHAT'S IN A NAME?

You don't have to call it meditation. In fact, Sroka said, a lot of people would prefer that you don't.

Terms such as "mindfulness stress reduction" and "relaxation response" are less threatening to some folks. They also make it easier to introduce the practice in offices and schools, where even a tangential reference to religion can raise red flags.

Since 2001, doctors doing their residencies in the alternative-medicine clinic's family medicine program have been required to take a class in

meditation, not necessarily to pass on the information to their patients - although they are encouraged to do so, Sroka said - so much as to help them deal with the stress of their jobs. At first, the program ran into resistance. Then the hospital quit calling it meditation.

"I think a lot of it is in the language," she said. Because of meditation's association with Eastern religions, "members of other religions often are uncomfortable with the term. People want to know that I'm not selling them a religion."

The scientific community's interest in meditation springs from tests in which electrodes attached to subjects' heads show their brains calming down during meditation, lowering stress levels and increasing the ability to focus.

The tests are generating so much interest that leading experts have almost become rock stars. In October, 1,200 people turned out for a lecture by Dr. Richard Davidson at the University of Minnesota's Center for Spirituality and Healing. Davidson is a professor at the University of Wisconsin who has been on the cutting edge of using neuroscience to monitor meditation-induced changes in the brain.

He is convinced that the brain can be trained to deal with stress the same way a muscle can be conditioned to lift a heavy weight.

"Training the mind can lead to changes in the brain," he said.

FLEXING YOUR MIND MUSCLE

On the Minneapolis campus of the University of Minnesota, the Mindfulness for Students club meets every Friday for a 90-minute meditation. Attendance tends to surge right before finals.

"It's a great way to deal with stress," said Stefan Brancel, a junior who is president of the club. Meditation "makes you capable of stepping back and taking a bigger perspective instead of getting lost in the stress. Once you step back and see the situation for what it is, you can react to it."

The surge in scientific research focuses on brain imaging. The best known device is functional magnetic resonance imaging, or fMRI, which produces color-coded cross-section diagrams showing how the neurons in the brain are firing.

Davidson has used this imaging with Tibetan monks. While his findings have been stunning, questions arise over their applicability to the general public. Studying the brain waves of people who meditate for several hours a day is comparable to measuring physical fitness in Olympic athletes, critics say. The results might be impressive, but what do they mean for the average person?

That's why Mary Jo Kreitzer, founder and director of the Center for Spirituality and Healing, is excited about studies of meditation newcomers. Researchers at the University of Massachusetts have documented changes in the brains of novice practitioners who took an introductory eight-week class and meditated as little as 15 minutes a day.

Sroka said that the techniques can become second nature. In times of stress, "you slow down and breathe slowly," she said. "You get to the point where you do it routinely without even being aware of it."

Kreitzer agrees. "Mindfulness is an attitude that you carry with you," she said. "I think mindfulness really helps us move through life with ease."

She also challenges the notion that meditating requires a special room filled with incense, soothing music and floor mats on which practitioners twist themselves into the lotus position.

"You can sit, you can stand, you can walk," Kreitzer said. "I wouldn't advise doing it while you're driving, but other than that, [meditation](#) can be done anywhere."

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