Goldie Hawn Plunges into Brain Science

ASPEN. When I arrived at the Aspen Meadows Resort for the Second Annual Aspen Brain Forum last Thursday evening, Goldie Hawn was getting out of a vehicle near the entrance.

By Ingrid Wickelgren on September 28, 2011
last Thursday evening, Goldie Hawn was getting out of a vehicle near the entrance. I knew she was about to give the keynote address, but I was startled to practically run into the actress. A grandmother now, Hawn looked fabulous in over-the-knee black leather boots and a chunky silver belt strung around a black miniskirt. It wasn’t so much her looks, though, that made her instantly recognizable. Her trademark laugh and general effervescence mark her like a strobe light, quite visible even in the bright Colorado sun. I watched her stop to enthusiastically greet–hug, kiss–various other conference attendees, who seemed equally eager to chat her up, whether to advance their work or sidle up to celebrity, I couldn’t say.

Hawn spoke without notes, claiming to be a born communicator, a claim she backed up by her performance. As she talked, it occurred to me that vivaciousness and beauty did not alone propel her to stardom. Unlike most people who wing it, Hawn strung together rhythmic sentences that made sense. If the neuroscience community was going to be delivered an advocate, they could have done a lot worse.

She answered the obvious question first: Why is Goldie Hawn speaking at a brain conference? I already partly knew the answer. Just as any 7-year-old can now do, I had looked it up on the web. Six years ago Hawn established a nonprofit group called The Hawn Foundation “to promote children’s academic success in school and in life through social and emotional learning.” It is based on the notion that kids’ intellects do not exist in isolation from their emotions, their connections to others or the rest of their bodies. The MindUp program, the Foundation’s signature educational initiative, is designed to address these oft-neglected components of learning. It was a perfect fit for the forum, which this year addressed “The Cognitive Neuroscience of Learning: Implications for Education.” But more on that in a bit.
Hawn’s version was more personal. Decades ago (in 1972 she said), when she became famous, she felt newly anxious and something hard to imagine happened: she lost her signature smile. The change was foreign to Hawn—and not welcome. “When I was 11 years old, I decided that what I wanted to be in life was happy,” she said. “I thought, `All I want to do is hold onto this joy, this tickle I had when I was little.’” Having lost that tickle Hawn went spelunking, in her own psyche. She saw psychologists and began meditating, embarking on a nine-year psychological journey. Such an adventure might make lesser folks crazy or depressed in itself, but Hawn became surprisingly analytical about it. It led, she said, to her first understanding of the brain, “what it can do, how it can change.” She was particularly interested in neuroscience and spirituality, fancying questions such as “What is that God part of the brain?”

Hawn moved to rainy Vancouver, because her son, Wyatt, wanted to play hockey. While watching the rain outside her meditation room sometime in 2002, Hawn’s quest turned outward—in particular, to children. “I was a happy child,” she recalled. “I signed all my 4th grade papers, “Love, Goldie.” But in the wake of 9/11, she perceived U.S. children as being profoundly unhappy. “And I thought why can’t we do something that gets kids to understand their potential? Why don’t we teach our kids about the brain?”

Hawn was no brain expert, but she reasoned that teaching kids about the brain might make them more aware of their own thoughts and emotions. It might help them to develop the ability to think about thinking, or metacognition. That awareness would then give them better control over their own mind—directing their attention more appropriately or calming themselves down—in ways that could improve learning. Hawn seems to give kids lots of credit. I doubt most grownups would be similarly confident that kids could ably control their minds if shown how. Hawn saw this mission as urgent, though. She particularly
wanted to prevent stress from shutting down executive function, the self-control of thought, action and emotion that is essential for learning.

So Hawn asked a team of educators, neurologists, psychologists and social scientists to develop a new curriculum built, in part, around lessons about how the brain works. Nowadays teachers in about 65 U.S. schools, nearly 150 in Canada, seven in the UK and one in Venezuela are using MindUp. Some of its young students now weave brain anatomy into casual conversation. One six-year-old girl, Hawn says, explained that it was her aunt’s amygdala that saved her life when the aunt pulled her out of the way of an oncoming car. Another kid reportedly said, “Oh, that lights up my prefrontal cortex, I know how to do this.”

Not all scientists think explicit knowledge of brain anatomy is necessary for prepping kids for study. But it is kind of cool. And why not? “I don’t think kids need to know about the amygdala,” says Adele Diamond, a developmental cognitive neuroscientist at the University of British Columbia. “But kids enjoy learning about the brain. I don’t think it hurts.”

Another component of MindUp, also apparently aimed at metacognition, is meditation. For three minutes, students concentrate on their breathing. The activity not only promotes calm but also sharpens attention. “It is very hard to stay focused on something for three minutes,” Diamond says. “This is training the mind.”

An equally important objective of MindUp is social and emotional development. Kids are taught, for example, that random acts of kindness matter. They know about mirror neurons, Hawn says, and they learn that you become happy when you give to someone else, a lesson in line with the teachings of the Dalai Lama. Similarly, in “gratitude
Children regularly jot down what they are grateful for. I think this is also designed to make them feel good (Hawn invoked dopamine, the brain chemical for reward, in her talk), and to build better relationships. My kids are told to do this at Thanksgiving, and every November I have the passing thought that we really should be counting our blessings more often.

Preliminary data suggest the program works. Kim Schonert-Riechl, an applied developmental psychologist at the University of British Columbia and her colleagues tested the effectiveness of MindUp in 75 schools in her area. So far, the program seems to have had “incredibly positive effects,” says Diamond, who helped parse the data. It not only boosted kids’ self-reported feelings of happiness, liking of school, and sense of belonging, but also moderated kids’ cortisol levels, suggesting it lowered function.

Scientists I spoke to about MindUp were enthusiastic about its potential to benefit children, particularly those at risk of being unhappy and failing in school. A lot of it did make scientific sense. After all, meditation exercises of the type used in MindUp can help adults better orient their attention, according to work presented by psychologist Amishi P. Jha of the University of Miami. And stress can shut down the ability to think—so reducing it should do the opposite. Some studies exist on the effects of gratitude as well: expressing your appreciation for a romantic partner, for example, seems to solidify those important bonds. (See “The Happy Couple: Secrets to a Long Marriage,” By Suzann Pileggi, Scientific American Mind, January/February 2010.) MindUp is reportedly gaining the support of teachers as well. “Teachers love it,” Diamond claims. “That’s why it’s spreading.”

MindUp is far from the only educational program designed to nurture kids’ executive function through novel means or to focus on social and emotional needs. Among the experimental are Tools of the Mind and the Responsive Classroom. Sandra Brettler, a fourth-grade teacher from Seattle (who also holds a Ph.D. in neuroscience), wrote to me about the impressive results seen with the latter approach. “So much of our
struggle in education today does not take into account the whole student or our need for positive contributors to our society,” she wrote. “It’s a gift to be able to say that my students get daily practice in becoming cooperative, assertive, responsible, and empathetic community members and that through this lens, they become competent and advanced academic thinkers.”

But Hawn’s program is unique, if for no other reason, because she’s behind it. I couldn’t help admiring this scientific novice for doggedly following up on the instincts she had a decade ago, far-fetched as they might seem, and molding them into something undeniably real and data-driven. Hawn’s determination obviously cuts across disparate fields. “We are going to change education as we know it,” Hawn said.

*The views expressed are those of the author(s) and are not necessarily those of Scientific American.*