Scientists to share insights into compassion with the Dalai Lama

By Janet I. Tu

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At the University of Washington, researchers are testing whether toddlers will imitate them when they push buttons and pull open drawers.

At The Gottman Institute in Seattle, a psychologist has put together a program for parents of newborns to help them create stronger relationships with each other and their baby.

And halfway across the country, at the University of Wisconsin-Madison, a neuroscientist studies changes in the brain when people meditate on compassion.

What these researchers have in common: Their work contributes to the scientific exploration of compassion — insights they'll share with the Dalai Lama during a five-day "Seeds of Compassion" gathering that starts here Friday.

The Tibetan Buddhist leader will headline the gathering, where events and workshops will examine numerous aspects of compassion: why it’s important, what science says about its roots, what children and adults can do to develop it and what specific steps society can take to nurture it.

"We’re not talking about compassion as some nebulous concept," said Ron Rabin, executive director of the Bellevue-based Kirlin Charitable Foundation, which focuses on early-childhood development. Seeds is an initiative of the Kirlin Foundation. "We want sustainable, actionable, measurable results."

Scientists play a big role in that.

Psychologists, neuroscientists and other experts will speak at the gathering’s opening day about their research and how people can use that knowledge.

Compassion arises from the "interaction of biology and culture — including the family environment and larger culture in which we are raised," said Andrew Meltzoff, a developmental psychologist and co-director of the UW Institute for Learning and Brain Sciences.

"The roots of compassion is one of the grand challenges for science today."
How toddlers learn

At the UW's institute, researchers are examining how 3-year-olds learn through imitation.

Rebecca Williamson, a postdoctoral fellow, sits at a small table, pushing a button, then opening a drawer to get at a small toy. She sees if the child will do the same.

Meltzoff says one of the most important ways children learn is by imitating adults, including how well they treat others.

Further, his view — which he calls the "like me" theory — is that the ability of babies to imitate the movements of others ultimately leads to compassion.

It goes like this:

When a baby opens and closes her hand or shakes a rattle, a parent will often do the same, and back and forth. The baby feels what it's like to make movements in her body, and over time, realizes that other human beings can make movements just "like me."

That's paving the way for empathy — for "standing in the shoes of somebody else," Meltzoff says.

Imitating behavior helps infants and young children eventually understand that "you are also 'like me' in terms of your underlying feelings or emotional states. ... When I feel sad, you may feel sad."

Meltzoff and his colleagues are also studying how adult brains work.

When they took brain scans of adults, they discovered that two parts of the brain became very active when adults saw pictures of somebody in pain.

"We're beginning to look at the seat of empathy in human beings," Meltzoff said. "It takes what otherwise can be a fairly abstract and ephemeral part of human nature — our feelings of compassion for others — and helps look at the biological mechanisms for that."

That's helpful, he said, if society wants to help people who lack empathy — bullies, for instance.

Growing compassion

Current research also indicates compassion can be enhanced through practice, similar to how one gets better at playing the violin or tennis, says Richard Davidson, a neuroscientist and professor of psychology and psychiatry at University of Wisconsin-Madison.

The conventional wisdom had been that a person's level of happiness or irritability is pretty much fixed by late adolescence, Davidson said. But current evidence shows that "the brain exhibits what we called neuroplasticity — the organ is built to change in response to training."

Though Davidson focuses much of his research on Tibetan monks who've practiced compassion meditation for years, he also works with those with much less experience.
"There’s no question that even short-term practice produces discernible changes in the brain," he said. "After two weeks practice, 30 minutes a day, you can detect very notable changes in the brain in rank novices."

More adults being more compassionate would be welcomed by John Gottman, a psychologist and co-founder of The Gottman Institute in Seattle, which conducts research on relationships.

Gottman's view is that a baby's temperament is shaped even as early as in the womb.

It makes a difference, for instance, if parents fight often while the mother is pregnant.

"Cortisol — the stress hormone — gets past the uterine barrier," Gottman said. "If a mother is pregnant in a family that loves and accepts her, it's a whole different uterine environment for the developing fetus. ...

"You can predict how much a baby smiles, or how quickly they calm down, by how the parents interact with each other," he said.

All of which is to say that the more compassionate the environment, the better for the baby.

That view isn't particularly new, Gottman acknowledges.

"I think Hallmark Cards knew that 50 years ago," he said. "But maybe what's new is even having that as a goal — that the world would be a better place if people were more compassionate to each other."

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