



INSIDE MIND & LIFE

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The Chairman's Letter

Greetings,

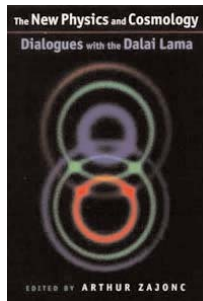
As we begin the year of 2005, I have reflected on our activities and accomplishments of the past year. Our MLXII meeting on neuroplasticity held October 18-22 in Dharamsala was a great success; you will read more about it in this issue. Our June 21-27 Mind and Life **Summer Research Institute** (MLSRI) held at the Garrison Institute was a phenomenal event as well. Several of our participants share their observations and insights on the 2004 MLSRI on the following pages.



Adam Engle

In addition, we have confirmed the November 8, 9, and 10 dates for our **Investigating the Mind 2005: The Science and Clinical Applications of Meditation** meeting, which will be held in Constitution Hall in Washington, DC. This meeting is open to the public.

On the publications side, *The New Physics and Cosmology: Dialogues with the Dalai Lama*, from our 1997 meeting, edited by Arthur Zajonc and published by Oxford University Press, came out in early 2004. William Kowinski wrote a comprehensive review of this book for the *San Francisco Chronicle* on April 11. We signed a contract with Harvard University Press for *Investigating the Mind: Buddhism and Science on How the Mind Works*, covering our 2003 Mind and Life XI meeting at MIT. Sharon Begley, the science writer for the *Wall Street Journal*, will write the book covering our Mind and Life XII neuroplasticity meeting. The book, published by Random House, will be released in late 2006 or early 2007.



Our research grant program experienced a good start in 2004. We solicited and accepted grant proposals from ML XI scientists and made four grants: Jonathan Cohen, Anne Treisman and Daniel Kahneman at Princeton; Stephen Kosslyn at Harvard; Daniel Reisberg at Reed College; and Dacher Keltner at University of California, Berkeley. We also solicited 20 research applications from Research Fellows who attended the 2004 MLSRI, and made 10 small grants to prominent researchers at Harvard, Columbia, Stanford, University of Maryland, UC-Berkeley, UC-San Francisco, UC-San Diego, University of Arizona, and University of Toronto.

In the media, our work received the following coverage:

Science & Theology News, December 2004, "Buddhism & Science for a Healthy Mind," by Geetinder Garewal.

Proceedings of the National Academy of Sciences, November 16, 2004, "Long term meditators self-induce high amplitude gamma synchrony during mental practice," by Antoine Lutz, Lawrence Greischar, Nancy B. Rawlings, Matthieu Ricard and Richard Davidson. This was the first paper to report the results of our research study at the University of Wisconsin.

Wall Street Journal, November 5, 2004, "Scans of Monks' Brains Show Meditation Alters Structure, Functioning," by Sharon Begley.

Smithsonian Magazine, May 2004, "What Does the Dalai Lama Have to Teach Psychologists about Joy and Contentment?" by Chip Brown.

O, the Oprah Magazine, March 2004, "Choose Happiness," by Mark Matousek. This article quoted Mind and Life.

Last, but certainly not least, we began a partnership with the John Templeton Foundation. Templeton helped fund our first Mind and Life Summer Research Institute. We thank them and our other wonderful sponsors who made all of the above possible in 2004.

With every best wish for 2005,

Adam Engle

Chairman and CEO
Mind and Life Institute

Neuroplasticity: Mind and Life XII, October 18-22, 2004 Dharamsala, India

The Science of Goodness

By Margaret Cullen

When I tell friends what a privilege it was to spend five days with His Holiness the Dalai Lama, they inevitably ask, "Why?" "He brought out the best in us" is my reply. "How, exactly, does he do that?" they want to know.

The Dalai Lama models our exquisite potential as humans. It is like dancing with a great partner, or playing tennis with a Wimbledon champ - such beings can pull us up to their level and model how we might aspire to their greatness. His Holiness brings out our pure nature, our capacity for kindness and goodness that is always there. He sees our beauty, just as Michelangelo saw the perfect form within a crude block of stone.

Helen Neville, in her presentation on "Human Developmental Plasticity", used the same metaphor when describing brain development. We begin with hundreds of trillions of synapses, many of which are redundant. It is life experience which shapes the brain system by reducing synapses and ultimately revealing a finely differentiated system.



Helen Neville and Richard Davidson at Mind and Life XII in 2004 in Dharamsala, India.

For example, a one year old child has twice the synapses in her visual cortex as her mother. However, throughout the life span, the brain, this powerful, plastic and utterly compelling organ that drove the conference, the research, and much of human history, is actually diminutive and fragile with the consistency of butter at room temperature.

This interplay of cutting edge scientific research with the highest and deepest of human aspiration creates the unique dialectic that is the hallmark of the Mind and Life Conferences. It is a conversation that is always teetering on the edge of what is known while providing a singular venue in which scientists and Buddhist leaders can exchange ideas, research and experience both formally and informally. Where Fred Gage from the Salk Institute could give a detailed account of neurogenesis in the morning and the Dalai Lama can good naturedly answer questions about everything from



Fred "Rusty" Gage and His Holiness the Dalai Lama discuss neuroplasticity at Mind and Life XII in 2004 in Dharamsala.

pure awareness to how to walk through air in the afternoon. (For those interested in trying, it's by pulling the earth elements out of molecules and strengthening them!)

The depth of commitment and development on the part of both the Buddhists and the scientists made for a very rich discourse - by turns, both affecting and fascinating. It was with ingenuous sincerity that the scientists asked the Dalai Lama, Nobel Laureate and world-renowned peace maker, for advice on teaching ethics to science graduate students (now a legal requirement). With his classically exquisite simplicity, the Dalai Lama responded that ethics are grounded in affection and warm-heartedness.

It was a priceless moment to see the implications of this register on the faces of the scientists as they contemplated the curriculum for such a course. Other questions were left hanging in the air, beguiling the attendees and allowing the impact of the conference to extend well beyond the five

days. For example, Evan Thompson asked us to consider the similarities and differences between the Buddhist idea of dependent origination and the western scientific concepts of emergence and reciprocal causation.

What science explores and measures, Buddhism cultivates and trains. As a result of the publication of Richard Davidson, et al's article in the Proceedings of the National Academy of Science, the scientific community has irrevocably glimpsed the extraordinary changes possible in the brain of the advanced meditator. His Holiness commented, "There is a limit to our potential to cultivate the physical body (athletes), whereas mental aspects are unlimited."

In the sublime presence of The Dalai Lama, we see that fellow human beings can heartily laugh at their foibles and love their enemies. But I think his warm presence and ability to connect with the taproot of goodness goes even deeper than that.

When asked, "Can you remember the happiest time in your life?" He said in his charming and disarming style, "I think . . . this moment. Here, with you!"

More photos from the Mind and Life XII meeting in 2004 in Dharamsala, India can be seen at:

http://www.mindandlife.org/dsala04.photo_section.html

2004 Mind and Life Summer Research Institute Reflections

The first Mind and Life Summer Research Institute was held at Garrison Institute, June 22-27, 2004. The Summer Research Institute advances collaborative research among neuroscientists, Buddhist and other contemplative scholar/practitioners.

The long-term objective of MLSRI is the advancement of a new generation of neuroscientists interested in exploring the influence of contemplative practice on mind, behavior, and brain function.

"It was pretty amazing to see how many of the participants already had a meditation practice firmly in place when they arrived at Garrison," commented Mind and Life Institute Chairman Adam Engle. "We were not expecting that."

Applicants totaled 254, while 89 people were chosen to participate as Research Fellows or Senior Investigators. Participants came from across the globe: Australia, Belgium,



Research Fellows and Senior Investigators gathered at the 2004 Mind and Life Summer Research Institute in Garrison, New York.

Germany, Switzerland, Israel, Canada, Mexico, and the United States.

The Templeton Foundation, Garrison Institute, Mental Insight Foundation and several anonymous donors sponsored the 2004 MLSRI.

Attendee Reflections

Judging from the participants' exit questionnaires, MLSRI was a great success. Here's what some of the participants had to say about the experience:

Linda E. Carlson, Ph.D., 2004 MLSRI Senior Investigator

"Upon returning from Garrison, students, friends and colleagues asked about my trip. Still basking in the warm glow of the experience, at first I didn't know what to say. Usually after a conference I relay fairly little, often a bit about the studies that were presented or the city in which it was held. This time was different — once I had time to reflect, I talked about the wonderful sense of community that was nurtured and deepened over the week, and the emotional and intellectual bond and respect that developed between the participants — faculty, students, post-doctorates and senior investigators alike. I discussed the focus on compassion, both in our work and our practice of meditation and life. I also highlighted the juxtaposition between meditating with a Tibetan monk in full robes one moment, easily transitioning to PowerPoint presentations of brain scans the next, and how natural this all felt. I'm grateful to all those whose vision and effort made such an unlikely experience possible, and look forward to watching and participating in the further unfolding of this wonderful process. May you all be happy, peaceful and free from suffering."



Participants listen intently to a presentation at the Summer Research Institute.

Nisha N. Money, M.D., 2004 MLSRI Research Fellow

"Attending the Mind and Life Summer Research Institute was one of the most remarkable experiences of truly and authentically bridging the interests and ideology of those of us on the quest to dissolve the boundaries between the spirit of consciousness and neuronal correlations. The discussions and insights gained from the group and one-on-one interactions were fuel for the soul, intellect and the evolution of our desire to become more aware and tuned into the real, objectively real, nature of reality. I feel this experience was an amazing catalyst in providing insight into how our inner and outer quest is essentially fluid in its interaction and more importantly - contained in one another. Again, thank you for allowing me to participate in this landmark experience and for creating this profoundly valuable venue."

2004 MLSRI Research Fellow

"It was an amazing experience to be surrounded by so many great minds and to continuously think about exciting research to do. It was for the first time that the two separate hemispheres of Buddhism and neuroscience started to come together and talk to each other, thereby uniting two important parts of my life. But most importantly I found it very valuable that we were starting to put together, as a group, a framework for future research in meditation, including specific research questions in delineated subfields of neuroscience and taxonomies and typologies of Buddhist knowledge and experience."

2004 MLSRI Research Fellow

"The MLSRI was an intense experience I think I will not forget for the coming years. It was intense in a good way, though. One of the most fascinating aspects of the MLSRI was the participants. Most of the people were truly sincere and poignant at the same time, and their sincerity and intellectual and spiritual capacities are something that I will miss. Meeting those people has humbled me and has bred hope in me that humanity is not completely doomed. As I reflect, I feel very fortunate to be able to attend the conference/retreat. I feel privileged and honored, and for this I would like to thank everybody who made this event possible. I hope that there is a MLSRI every year or at least every other year; if this happens, I have no doubt in claiming that many people will be nourished in the coming years."

2004 Summer Research Institute photos can be seen at: http://www.mindandlife.org/si04.photo_section.html

Important Dates

June 26-July 2, 2005 — Mind and Life Summer Research Institute, Garrison, New York

November 8, 9, 10, 2005 — Investigating the Mind 2005 Meeting, Constitution Hall, Washington, DC

November 13, 2005 — His Holiness the Dalai Lama Public Talk, MCI Center, Washington, DC

Mind and Life in the News

Recent News Articles

Financial Times, "Uplifting Thoughts" by Stephen Pincock, mentions Mind and Life Institute and talks about how Professor Richard Davidson's work stems from ongoing meetings since 1987 between scientists and the Dalai Lama. January 14, 2005

Time Magazine, "The Biology of Joy" by Michael D. Lemonick, discusses the results of numerous studies that center on happiness. Richard Davidson's research was the lead study. Matthieu Ricard is also extensively quoted. January 17, 2005

Psychology Today, "Happy Hour" by Carlin Flora also features the Davidson research. A sidebar article, "The Scholar of Delight" is an interview with Professor Daniel Kahneman about his research into the daily choices that influence a sense of well-being. February 2005

Additional articles about Mind and Life are at: <http://www.mindandlife.org/current.news.html>

Mind and Life Affiliates in the News

John Simon Guggenheim Memorial Foundation fellows for 2004 include **Stephen M. Kosslyn**, Harvard University. Professor Kosslyn participated in our 2003 Investigating the Mind meeting, our 2004 Mind and Life Summer Research Institute (MLSRI), and will participate again in our 2005 MLSRI.

Professor and Nobel Prize winner **Daniel Kahneman**, Princeton, received an honorary Doctor of Laws degree at Harvard University's June commencement ceremonies. Dr. Kahneman participated in our 2003 Investigating the Mind meeting, our 2004 MLSRI, and will participate in our Investigating the Mind 2005 meeting in November.