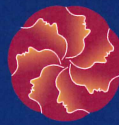


Mind & Life Institute presents



Mind and Life XXIV
Dialogues Between Buddhism and the Sciences

Latest Findings in Contemplative Neuroscience

with
His Holiness
the Dalai Lama

Hosted by the Department of Medicine | Mayo Clinic Rochester | Tuesday, April 24, 2012

Twenty-Five Years of Investigating the Mind

Mind and Life was co-founded in 1987 by the His Holiness the Dalai Lama, neuroscientist Francisco Varela and entrepreneur Adam Engle for the purpose of creating rigorous dialogue and research collaboration between modern sciences and the world's living contemplative traditions. We believe this integrated, multi-disciplinary research collaboration is the most effective approach to investigating the human mind, developing a more complete understanding of the nature of reality, alleviating suffering and promoting well-being on the planet.

Over the past 25 years, Mind and Life has become a world leader in cultivating this integrated investigation and in developing research fields that explore the effects of contemplative-based practices on the brain, human biology and behavior.

Building on decades of rigorous scientific research, profound and bold dialogues on the nature of mind and humanity, and poignant and insightful scholarly and contemplative participation in our work, we continue to expand and deepen our investigation of the mind. In addition to ongoing support for scientific investigation, we are also adding the perspective of the humanities as well as the first-person perspective from contemplative practice itself, elements essential to cultivating a comprehensive understanding of contemplative practices, their benefits, and uncovering how those findings can help individuals and societies.

We envision a world that understands the importance of exploring the mind and developing inner resources in ways that alleviate suffering rather than cause suffering; a world in which everyone has access to age-appropriate and culturally appropriate means for achieving insight.

We are grateful and appreciative for all of your support and interest, and warmly invite you to join us on this most important journey of discovering the mind.

The Mission of Mind and Life is to:

- Develop the strategy and conceptual framework for a rigorous, integrated, multi-disciplinary investigation of the mind that combines first-person and second-person direct human experience with a modern scientific third-person inquiry
- Develop a global community of scientists and scholars to conduct this investigation, and global communities of financial partners to provide the material resources to support this research
- Delineate specific research projects that are strategically designed to advance these emerging fields of research
- Communicate research findings to provide a scientific basis for developing and refining practices and programs designed to improve lives and societies; practices that cultivate the human qualities of attention, emotional balance, kindness, compassion, confidence and happiness

To learn more about Mind and Life, please visit our website at www.mindandlife.org

Today, Mind and Life is happy to be joining Mayo Clinic in presenting **Mind and Life XXIV: Latest Findings in Contemplative Neuroscience.**

PARTICIPANTS

Participants

Tenzin Gyatso, His Holiness the 14th Dalai Lama

Richard J. Davidson, Ph.D., Founder and Chair, Center for Investigating Healthy Minds; Director, Laboratory for Affective Neuroscience and the Waisman Laboratory for Brain Imaging and Behavior, University of Wisconsin–Madison

Thorsten Barnhofer, Ph.D., Clinical Senior Lecturer in Depression Studies at the Institute of Psychiatry, King's College, London

Willoughby Britton, Ph.D., Assistant Professor of Psychiatry and Human Behavior, Brown University Medical School; Director of Clinical Research, Brown University Contemplatives Studies Initiative

Norm Farb, Ph.D., Postdoctoral Researcher, Rotman Research Institute

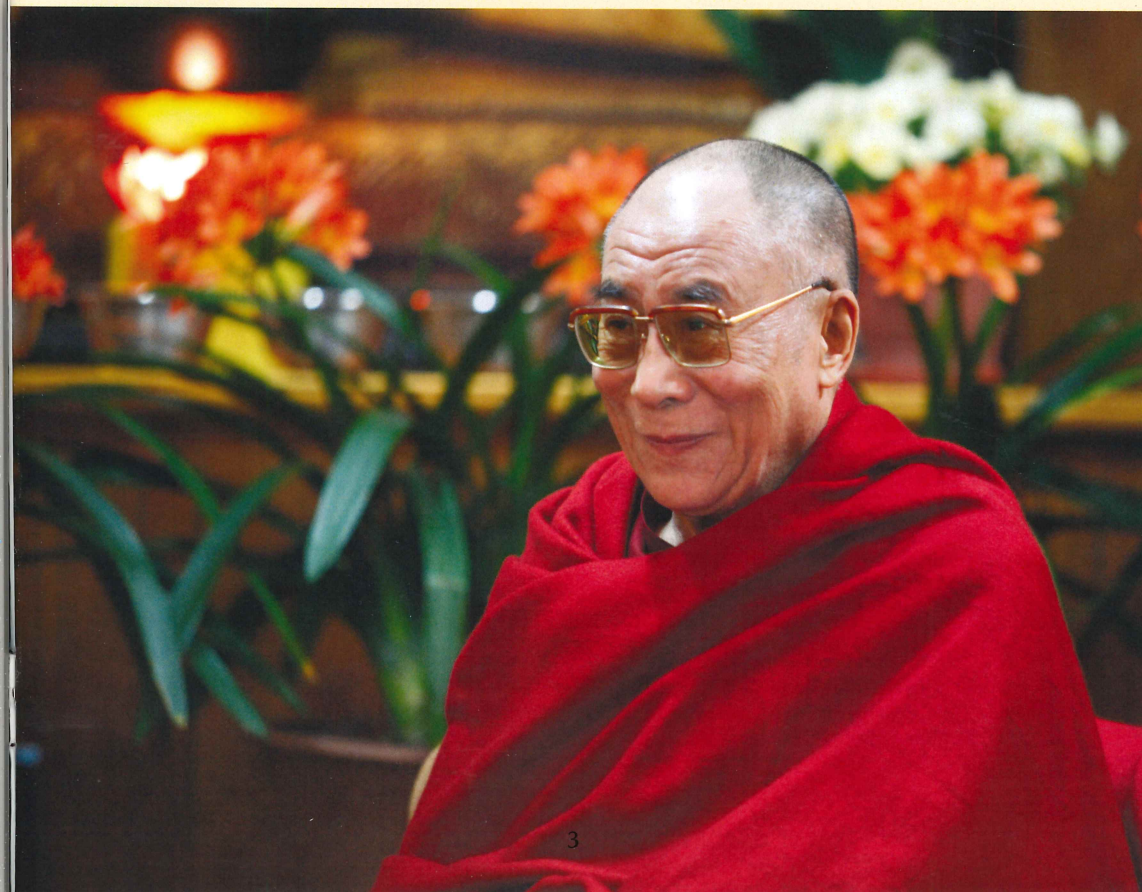
Baljinder Sahdra, Ph.D., Lecturer in Psychology, University of Western Sydney, Australia

David Vago, Ph.D., Instructor of Psychology, Functional Neuroimaging Laboratory, Brigham and Women's Hospital, Harvard Medical School

Helen Weng, M.S., Graduate Student in Clinical Psychology, University of Wisconsin–Madison

Interpreter

Thupten Jinpa, Ph.D., President, Institute for Tibetan Classics, Montreal



Thorsten Barnhofer, Ph.D.

Institute of Psychiatry, King's College, London

Depression is a highly prevalent mental health problem. In a considerable number of those affected, the disorder takes a lifelong and chronic course.

What are the central psychological mechanisms, and their genetic and neurophysiological underpinnings, that make depression persist, and how can training the mind through meditation help to bring about change?

Willoughby Britton, Ph.D.

Brown University Medical School; Brown University Contemplative Studies Initiative

Interviews with more than 60 meditation teachers, Buddhist scholars and practitioners explore the nature and phenomenology of meditation-related difficulties, the wide range of interpretations from progress to pathology, and possible risk factors which may exacerbate expected (but perhaps difficult or challenging) meditation effects into the need for additional support or psychiatric intervention.

Norm Farb, Ph.D.

Rotman Research Institute

I would like to discuss the idea that there are 2 distinct brain systems supporting conscious experience, and how they relate to well-being. On one hand there is attention towards external objects, which leads us to believe in a world composed of static, permanent 'things'. This external system is closely tied to a conceptual and seemingly permanent sense of self. On the other hand there is attention towards internal sensations that change from moment to moment. These experiences lead us to believe that nothing is permanent, but is instead constantly changing and fluctuating. Most people that I have studied show much greater activation in this first external type of attention, especially people with emotional problems. Balancing these two ways of seeing the world seems to be important to individual's sense of well-being. I would like to learn more about the Buddhist perspective on whether this internal system is 'special' in its ability to help develop wisdom, or whether other types of meditation may be equally effective.

Baljinder Sahdra, Ph.D.

University of Western Sydney, Australia

I have developed and validated a measure of an important Buddhist construct, nonattachment, defined as release from reification of mental representations. I have also found that nonattachment predicts less defensiveness while recalling historical transgressions of one's group members against other groups. Can nonattachment allow people to draw group boundaries without reifying them? Can it increase social inclusion by increasing empathy with members of other groups? Can it promote intergroup harmony? I plan to answer such questions in my future research.



ABSTRACTS

David Vago, Ph.D.

Functional Neuroimaging Laboratory, Brigham and Women's Hospital, Harvard Medical School

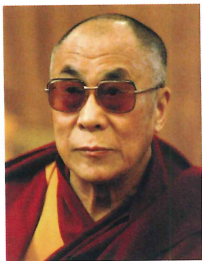
In the last two decades, the concept of mindfulness as a state, trait, process, and intervention has been successfully adapted in contexts of clinical health and psychology, especially with relation to treating stress, targeting emotion dysregulation, attention, and improving pro-social dispositions. Yet, there remains a lack of clarity in the operationalization of this construct and the underlying mechanisms of action. This talk will focus on process models for specific meditative practices that cultivate mindfulness, and that account for transformations related to achieving insight into the nature of one's mind. Specific neurocognitive processes are identified and precisely described in terms that integrate current research findings in the field of contemplative science. Our hope for this dialogue is to clarify some of the processes involved in developing mindfulness and disambiguating the construct from the associated processes themselves. An additional hope is that such research can further our understanding how mindfulness functions in a therapeutic context and provide a biologically-driven foundation for future investigation of specific meditation-based practices in the clinical and neurosciences.

Helen Weng, M.S.

University of Wisconsin-Madison

I will discuss the effects of compassion meditation training on the brain and altruistic behavior. Our research shows that two weeks of compassion meditation increases the stability of compassionate brain states, and that this stability is related to altruistic donations to charity. These results suggest that compassionate brain states can be trained in a novice population and may have real-world effects on helping others.

PARTICIPANT BIOGRAPHIES



Tenzin Gyatso, the XIV Dalai Lama, is the leader of Tibetan Buddhism and a spiritual leader revered worldwide. He was born on July 6, 1935, in a small village called Taktser in north-eastern Tibet. Born to a peasant family, he was recognized at the age of two, in accordance with Tibetan tradition, as the reincarnation of his predecessor, the XIII Dalai Lama. The Dalai Lamas are manifestations of the Buddha of Compassion, who choose to reincarnate for the purpose of serving human beings. Winner of the Nobel Prize for Peace in 1989, he is universally respected as

a spokesman for the compassionate and peaceful resolution of human conflict.

He has traveled extensively, speaking on subjects including universal responsibility, love, compassion and kindness. Less well known is his intense personal interest in the sciences; he has said that if he were not a monk, he would have liked to be an engineer. As a youth in Lhasa it was he who was called on to fix broken machinery in the Potala Palace, be it a clock or a car. He has a vigorous interest in learning the newest developments in science, and brings to bear both a voice for the humanistic implications of the findings, and a high degree of intuitive methodological sophistication.



Thorsten Barnhofer, Ph.D.

Thorsten Barnhofer is a Clinical Senior Lecturer in Depression Studies at the Institute of Psychiatry, King's College, London, and is currently supported through a Heisenberg-Fellowship from the German Research Foundation to conduct research on the treatment of depression using mindfulness meditation at the Freie Universität Berlin. The main focus of his work is on the investigation of cognitive and neurophysiological factors underlying the persistence of affective disorders and their modification using

mindfulness-based cognitive therapy interventions. Over the past eight years, he has worked as a clinical research psychologist in a team led by Prof. Mark Williams at the University of Oxford, where he has been involved in research on the effects of Mindfulness-Based Cognitive Therapy (MBCT) in suicidal and chronic depression, as a clinician, mindfulness teacher and researcher. He teaches MBCT retreats for mental health professionals together with Mark Williams and Melanie Fennell and is a licensed CBT-therapist and yoga teacher.



Willoughby Britton, Ph.D.

Willoughby Britton received a B.A. in Neuroscience, a Ph.D. in Clinical Psychology and is currently an Assistant Professor of Psychiatry and Human Behavior at Brown University Medical School and Director of Clinical Research of Brown's Contemplatives Studies Initiative. She spent several years in Asia studying meditative techniques and received her mindfulness instructor certification training at the Center for Mindfulness at the

UMASS Medical School. With the aim of investigating the link between contemplative practices, brain function, sleep, attention and affective disturbances, she has conducted RCTs on the neurophysiological effects of Mindfulness-Based Cognitive Therapy in depression; and education-based mindfulness training in middle school and university students in comparison to music and dance. Dr. Britton is interested in