INTERNATIONAL SYMPOSIUM for Contemplative Studies

THURSDAY – SUNDAY
October 30 – November 2, 2014
BOSTON, MASSACHUSETTS
The International Symposium for Contemplative Studies seeks to encourage and help shape a cohesive interdisciplinary field of contemplative studies in which basic and applied science, scholarship, education, the arts, and contemplative traditions collaboratively develop an integrated way of knowing.
On behalf of the Mind & Life Institute, it is our pleasure as members of the Planning-Committee to welcome you to the second International Symposium for Contemplative Studies (ISCS).

ISCS brings together scientists, scholars, artists, and contemplatives to explore neuroscience, clinical science, philosophy, humanities, education, economics, the arts, and other domains. These distinct, though overlapping, fields of research and scholarship focus on advancing our understanding of the human mind and examining how training the mind through contemplative practices may lead to valuable insights that promote a reduction in suffering, enhanced health and cognitive/emotional functioning, and increased social harmony. It has become clear that a multidisciplinary integrative approach is critical for understanding the mind and its relation to health, ethical behavior, and society at large. The ISCS seeks to encourage and help shape a cohesive interdisciplinary field of contemplative studies in which basic and applied science, scholarship, education, the arts, and contemplative traditions collaboratively develop an integrated way of knowing.

There has been a growing consensus regarding the need for a recurring venue for researchers, practitioners, scholars, and students in the emerging contemplative fields to come together to share new findings and to network with established and potential collaborators. Our goal is to provide such a venue through this event — the second in what we hope will be a regular, biannual conference. The first ISCS, held in Denver in 2012, was an overwhelming success with more than 700 attendees. Reflecting the rapid growth in our field, we are pleased to welcome even more participants to this year’s ISCS in Boston, where we will host more than 100 concurrent sessions and more than 200 posters, in addition to our esteemed keynote and master lectures.

We wish to extend our deep gratitude to each of you for joining us and for the important work that you do. We hope you will be enriched by the many fine presentations, as well as your encounters and conversations with colleagues over the coming days.

With warmest wishes,

Arthur Zajonc  
Planning-Committee Co-chair  
President, Mind & Life Institute

Al Kaszniak  
Planning-Committee Co-chair  
University of Arizona

Planning-Committee Members  
Sona Dimidjian, University of Colorado, Boulder  
Wendy Hasenkamp, Mind & Life Institute  
Amishi Jha, University of Miami  
Harold Roth, Brown University

Pictured left to right: Sona Dimidjian, Wendy Hasenkamp, Amishi Jha, Al Kaszniak, Harold Roth and Arthur Zajonc.
Our program consists of a rich variety of keynote addresses, master lectures, organized and individual papers, poster presentations, contemplative arts, and practice.

Every morning before the conference, Richard Freeman and Mary Taylor will lead yoga practice for all levels, followed by meditation led by a different teacher each day from a variety of traditions. During the conference, keynote addresses will draw participants together across broad themes while master lecture sessions will bring together speakers in small groups for focused presentations. Master lectures will include time devoted to discussion with questions from participants.

The remainder of the conference schedule is devoted to concurrent panel discussions, platform presentation sessions, and poster presentations — all of which were submitted, reviewed, and accepted by our Review Committee. Every effort was made to balance the diversity of the overall program with the highest quality of work available across the fields of contemplative science and contemplative studies.

We hope you are able to take in the variety and depth available in these quality presentations and sessions, and that your experience will be enlightening to your field and perhaps to your own research or profession.

Welcome!

2014 INTERNATIONAL SYMPOSIUM PLANNING-COMMITTEE
Al Kaszniaek, PhD, Committee Co-chair, University of Arizona
Arthur Zajonc, PhD, Committee Co-chair, Mind & Life Institute
Sona Dimidjian, PhD, University of Colorado, Boulder
Wendy Hasenkamp, PhD, Mind & Life Institute
Amishi Jha, PhD, University of Miami
Harold Roth, PhD, Brown University

2014 CONTEMPLATIVE EDUCATION PRE-CONFERENCE PLANNING-COMMITTEE
Daniel Barbezat, PhD, The Center for Contemplative Mind in Society/Amherst College
Grace Bullock, PhD, Committee Co-chair, Mind & Life Institute
Adi Flesher, EdM, Garrison Institute
Sheryl Petty, EdD, Brown University
Emiliana Rodriguez, EdM, AtentaMente
Rona Wilensky, PhD, Committee Co-chair, PassageWorks Institute

Download the ISCS App!
→ Access and create your own schedule, bookmark events, take presentation notes, and download presentation content.
→ Create your own profile to connect with fellow ISCS attendees and presenters using built-in social media platforms.
→ Receive event messages and real-time notifications right on your phone.
→ Access interactive venue maps, ISCS info, restaurant recommendations, and much more.

https://crowd.cc/directory

Download the Crowd Compass Directory to access the ISCS app using the link above or QR code. Enter “The International Symposium for Contemplative Studies” into the search bar and click on the event to access the app.
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome Letter</td>
<td>1</td>
</tr>
<tr>
<td>Program Overview and Planning-Committees</td>
<td>2</td>
</tr>
<tr>
<td>Thursday, October 30 – Day at a Glance</td>
<td>4</td>
</tr>
<tr>
<td>Pre-conference Introduction and Opening Keynote</td>
<td>5</td>
</tr>
<tr>
<td>General Conference</td>
<td>8</td>
</tr>
<tr>
<td>Friday, October 31 – Day at a Glance</td>
<td>10</td>
</tr>
<tr>
<td>Keynote Lecture</td>
<td>11</td>
</tr>
<tr>
<td>Master Lectures</td>
<td>12</td>
</tr>
<tr>
<td>Concurrent Session</td>
<td>14</td>
</tr>
<tr>
<td>Poster Session</td>
<td>24</td>
</tr>
<tr>
<td>Saturday, November 1 – Day at a Glance</td>
<td>47</td>
</tr>
<tr>
<td>Keynote Lecture</td>
<td>48</td>
</tr>
<tr>
<td>Master Lectures</td>
<td>49</td>
</tr>
<tr>
<td>Concurrent Session</td>
<td>53</td>
</tr>
<tr>
<td>Poster Session</td>
<td>65</td>
</tr>
<tr>
<td>Sunday, November 2 – Day at a Glance</td>
<td>89</td>
</tr>
<tr>
<td>Concurrent Session</td>
<td>90</td>
</tr>
<tr>
<td>Keynote Lecture</td>
<td>97</td>
</tr>
<tr>
<td>Venue Site Map</td>
<td>98</td>
</tr>
<tr>
<td>Invited Speaker Bios</td>
<td>100</td>
</tr>
<tr>
<td>ISCS Sponsors</td>
<td>113</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>114</td>
</tr>
<tr>
<td>Mind &amp; Life Institute</td>
<td>115</td>
</tr>
<tr>
<td>Feedback</td>
<td>116</td>
</tr>
<tr>
<td>Restaurant Listings</td>
<td>116</td>
</tr>
</tbody>
</table>
The International Symposium for Contemplative Studies opens on Thursday with the Education Pre-Conference, bringing together leaders in contemplative and transformative education to explore the issues and barriers to personal and social transformation in educational systems, and work collectively to identify solutions at the individual, classroom, systemic, and community levels.

The Symposium officially kicks off at 5:00 PM on Thursday with an opening keynote address followed by a brief guided meditation to ground the conference in contemplative practice. All guests are invited to attend a reception following the opening keynote where light hors d’oeuvres and drinks will be served.

**Registration**

7:00 AM – 8:00 PM

4th Floor Registration Window

<table>
<thead>
<tr>
<th>Time</th>
<th>Main Track</th>
<th>Contemplative Track</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 AM – 7:00 AM</td>
<td></td>
<td>Yoga</td>
</tr>
<tr>
<td>7:00 AM – 8:30 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:30 AM – 10:15 AM</td>
<td></td>
<td>Pre-conference Introduction and Opening Keynote</td>
</tr>
<tr>
<td>10:15 AM – 10:30 AM</td>
<td></td>
<td>Coffee &amp; Tea Break</td>
</tr>
<tr>
<td>10:30 AM – 11:45 AM</td>
<td></td>
<td>Pre-Conference Workshops</td>
</tr>
<tr>
<td>11:45 AM – 1:15 PM</td>
<td></td>
<td>Lunch</td>
</tr>
<tr>
<td>1:15 PM – 2:30 PM</td>
<td></td>
<td>Pre-Conference Workshops</td>
</tr>
<tr>
<td>2:30 PM – 2:45 PM</td>
<td></td>
<td>Coffee &amp; Tea Break</td>
</tr>
<tr>
<td>2:45 PM – 3:30 PM</td>
<td></td>
<td>Pre-Conference Closing Keynote</td>
</tr>
<tr>
<td>3:30 PM – 5:00 PM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00 PM – 6:15 PM</td>
<td></td>
<td>ISCS Opening Keynote</td>
</tr>
<tr>
<td>6:15 PM – 8:00 PM</td>
<td></td>
<td>Welcome Reception</td>
</tr>
<tr>
<td>6:30 PM – 8:00 PM</td>
<td></td>
<td>Art Exhibit</td>
</tr>
</tbody>
</table>
A Tale of Two Movements: What Transformative and Contemplative Education Can Learn from Each Other

john a. powell, Haas Institute for a Fair and Inclusive Society (HIFIS)

How can we work together to create educational systems that support students in becoming compassionate, competent, and responsible members of the wider community? While justice and fairness are needed to support effective participation in the classroom, how do we ensure that students feel they belong and are included in the educational process? Together, we will explore a vision of education that draws from and includes the strengths of both the contemplative and transformative education movements. Both the contemplative and transformative fields of education are concerned with systemic positive change in education. Contemplative education integrates practices that promote self-reflection, compassion, and an ability to become more aware of one’s perceptions and actions. The contemplative focuses on the “inner” dimension of being and strives for an integration of the inner and the outer. The transformative education field seeks to develop the social skills and ethical dispositions necessary to support effective participation in a democracy that is just and fair to all of its citizens. Both approaches have much to teach and learn from each other. This dialogue will enable us to inhabit the space of a South African proverb, Sawubona, which means “We see you.” By “seeing” each other beyond our differences we can create community that can support the personal and socially transformative ways of living and being in an increasingly complex world.
Pre-Conference Workshops

PART 1: 10:30 AM – 11:45 AM
PART 2: 1:15 PM – 2:30 PM

BOYLSTON
Teaching for Radical Transformation
Rhonda Magee, University of San Francisco
Maria Pacheco, The Education Alliance at Brown University

We aim to co-create learning communities in which to explore approaches to infusing transformative education with contemplative practice, with the aim of fostering radical inclusivity and social justice. We believe that practices that support us in turning toward our own positionality, our suffering and the suffering of others (especially based on factors such as race, gender, sexual orientation, national origin, and/or families in distress), the vulnerability we all experience (particularly that of the systemically marginalized), our personal agency and will (even in the midst of powerful systems), and interpersonal care and effectiveness are essential to radical inclusivity and to successful and joyful collaboration. Together, we’ll experience and reflect on practices that support and embody teaching to transform.

PROVINCETOWN
Mind the Gap: Understanding the Distance Between Contemplative and Transformative Education
June Rimmer, Center for Educational Leadership, University of Washington
Pamela Seigel, Courage & Renewal Northeast, Wellesley College

What is the distance between the contemplative and transformative movements in education? What are the tensions between them? How do we understand this gap? What can each movement teach us that will guide our vision for a K12 education that serves and supports all children in reaching the highest level of academic learning, and understanding of themselves and their world? Through dialogue and reflective practice we will engage these questions, share our personal experiences, and identify how inner and outer work represent a paradox that needs to be creatively held. Participants will identify new and emerging inner- and outer-life skills that prepare contemplative and transformative teachers and administrators to engage in and lead personal and social transformation. Key to such skill development is an intentional connection between contemplative education and the seemingly ever-persistent need for equity and social justice. Together participants will clarify how contemplative and transformative education can combine to create a new vision for education that addresses the increasingly drastic social inequalities that plague our world.

SALON A
Environmental Education
Jamie Cloud, Cloud Institute for Sustainability Education
Patricia St. Onge, Seven Generations Consulting and Coaching

We are at a moment in time when the thriving of all beings on our Planet Mother is in question. What happens when we become aware and engaged as members of living systems? How does that awareness bring deeper meaning to learning within and outside of formal education systems that cultivates a more sustainable life? Through dialogue and reflective experiences, we will collectively explore these and other questions. We will consider what is needed to move us forward as we step into the fullness of who we are in our families, communities, and the world. We will share some examples of our work with people and communities who are exploring the mutually beneficial relationships between Education for Sustainability and contemplative practice, and ask participants to share their wisdom and experience so that we can begin to envision how we might work together to affect meaningful inter- and intra-personal transformation.

SALON B
To Be or Not to Be...That is the Answer: Empowering Underserved Parents to Be Present for Their Children at Home, School, and as a Community Change Agent
Zakiyah Ansari, New York State Alliance for Quality Education (AQE)
Doug Coatsworth, Colorado State University

The true heart of parenting extends from doing right for one’s own child to looking out for the best interests of all children. It involves understanding what that means and recognizing that the world is not always receptive. This can often be confusing and frustrating for parents. This discussion will emphasize our collective experiences in facilitating a mindful approach to parenting children and youth, and in organizing parents to be advocates for their children’s education. We will explore various transformative approaches intended to assist parents in managing some of these parenting, family, and community systems challenges. We will discuss myriad ways in which this is happening in diverse communities across the country, and consider how these approaches complement each other in promoting better academic and social outcomes for children and their families.

SALON C
Getting from Here to There: Perspectives on System Change in Education
Janice Jackson, National Equity Project
Jerome Murphy, Harvard University

The education of the world’s children is an essential enterprise for any society. This session will examine and deepen our understanding of the vision and work of the mindfulness and social justice movements as they work to reshape education. Together, we will explore places of convergence...
and difference in our respective views of how educational systems change as we envision a common future for the education of the world’s children. Our dialogue will center around three key questions: Where are we now? Working together, where might we go in 10 to 15 years? What are the opportunities and challenges of working together to reshape education systems so that all learners are prepared to make a contribution to a globalized world?

**SALON D**

Re-imagining the Vision of Education: Preparing Contemplative and Transformative Teachers and Administrators

Christopher Knaus, University of Washington, Tacoma

Laura Rendón, University of Texas, San Antonio

The fostering of academic, social and emotional student development and the cultivation of outer- and inner-life skills for all students requires a newly designed vision of education. This session will examine the re-envisioning of education through engaging participants in reflection and lively discussion about critical questions regarding realizing and embodying education by connecting the contemplative and transformative education movements. Participants will explore and generate the foundations of an educational vision that prepares students to be present to and transform the world in which they live.

**ST. BOTOLPH**

From Grassroots Community Building to Generating a Movement: An Investigation of What it Means to Embody Our Vision for Change

Leslie Booker, Urban Sangha Project

Kristen Zimmerman, Movement Strategy Center

As educators, administrators, activists, and movement builders, we are more powerful when we bring our whole selves to our work, see our connectedness to others, and embody the change we seek to create in the world. We will explore strategies for linking personal, collective, and systemic transformation to influence social change. Using personal narrative, experiential activities, reflection, and dialogue, facilitators and participants will explore examples and experiences of what this transformation and change might look like. Participants will learn embodied skills they can take back and apply to their classrooms, organizations, and other contexts to enhance systemic and educational change.

**TREMONT**

The Awakened Educator: On Contemplative Practice, Applied Research, and Social Transformation in Education

Yvette Jackson, National Urban Alliance

Robert Roeser, Portland State University

How can we re-envision and reform educational institutions based on our personal and collective aspirations, intentions, and motivations as awakened educators? We will collectively explore issues at the intersection of contemplative practice in education (e.g., mindfulness and compassion), applied research on those practices in school settings, and educational transformation efforts aimed at equity, social justice, and the success and flourishing of all in schools. Questions we will discuss and explore include: How can we develop an applied practical approach and research agenda at the intersection of contemplative and transformative education that encompasses culturally diverse children, educators, families, and systems? How can insights from education, applied developmental/prevention science, and developmental neuroscience contribute to this effort?

**Closing Keynote**

2:45 PM – 3:30 PM

**SALON A - D**

Epiphanies, Tensions, and Horizons: Pathways Forward

Sheryl Petty, Annenberg Institute for School Reform at Brown University

Arthur Zajonc, Mind & Life Institute

In this session, we will reflect on the lessons from the day’s workshops, examine their implications for the fields of contemplative and transformative education, and outline potential pathways forward. We will consider the following questions: How did these conversations impact how we see ourselves and our work? What new areas of focus emerged through these conversations? Are we thinking differently about our respective work as a result of these sessions? Going forward, what are the opportunities for collaboration, creativity, and change? Are there outstanding questions for the education field and beyond? What will be needed to take advantage of these new spaces for collaboration and sustainable change?
We live in a time of increasingly fragile social institutions: a political system distorted by increases in inequality; financial markets that create unsustainable debt; and an economy that drives a scarcity mentality and ever-escalating consumption, diminishing the quality of time-starved and stress-filled lives. We have crises in health care, education, and in the life-support systems of planet Earth. To address these intertwined problems, we will need a shift in consciousness and a new kind of leadership in every social sector — next-generation leaders who are equal to today’s challenges in all their complexity and who are skilled at leading themselves and others with compassion and equanimity. This talk will synthesize some of the current thinking about the key elements of education for the kind of compassionate and ethical leadership that we sorely need now, and too often lack.
Scientists and artists are often the vanguard of civilizational developments. They serve as seers who envision a trajectory of growth, and innovators who develop new ways to respond to their unfolding understandings of reality. The roles of scientist and artist converge in the paintings of Iwasaki Tsuneo (1917–2002) who, on retiring from a career as a research biologist, created an artistic genre to express the resonances he saw between Buddhist and scientific investigations about the nature of reality. Iwasaki's originality lay in melding insights from his scientific expertise with a Buddhist tradition of contemplative calligraphy. Integrating sacred words of a Buddhist text prized for liberative power with images both microscopic and cosmic, the Zen ink paintings on exhibit offer visual counsel on how reality can be perceived through the lens of wisdom to see the realm of compassion. The paintings encode metaphysical content into images drawn from scientific insights, nature, and Buddhist symbology by shaping the Chinese pictographs of the Heart Sutra to communicate the wisdom that pulses through daily life. Expressing the interdependent, impermanent, and empty nature of phenomena, Iwasaki delivers profound insights through his evocative images. By merging the spirit of the investigative traditions of science and Buddhism, the paintings reveal how the art of perception can generate healing insights. With the compassionate aim of relieving suffering, these paintings offer visual wisdom for a multicultural, scientifically informed, image-driven world.
Friday’s schedule starts early with yoga at 6:00 AM followed by a guided meditation session. His Holiness the 14th Dalai Lama will give a keynote address and participate in a dialogue with Richard J. Davidson and Amishi Jha. The afternoon continues with a selection of five concurrent master lectures, a short break, and then two consecutive 45-minute slots of concurrent sessions in which participants can choose from more than 20 diverse presentation options. Finally, in the evening, there will be an open poster session as well as a contemplative arts performance.

### Day at a Glance

<table>
<thead>
<tr>
<th>Time</th>
<th>Main Track</th>
<th>Contemplative Track</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 AM – 7:00 AM</td>
<td></td>
<td>Yoga</td>
</tr>
<tr>
<td>7:00 AM – 7:30 AM</td>
<td></td>
<td>Contemplative Practice</td>
</tr>
<tr>
<td>7:30 AM – 7:50 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:50 AM – 9:00 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00 AM – 11:30 AM</td>
<td>Keynote Dialogue with His Holiness, the 14th Dalai Lama</td>
<td></td>
</tr>
<tr>
<td>11:30 AM – 1:30 PM</td>
<td>Lunch</td>
<td>See local restaurant listing at the back of this program</td>
</tr>
<tr>
<td>1:30 PM – 2:15 PM</td>
<td>Master Lectures</td>
<td>Contemplative Practice</td>
</tr>
<tr>
<td>2:15 PM – 3:00 PM</td>
<td></td>
<td>Coffee &amp; Tea Break</td>
</tr>
<tr>
<td>3:00 PM – 3:45 PM</td>
<td>Concurrent Session</td>
<td>Contemplative Practice</td>
</tr>
<tr>
<td>3:45 PM – 4:00 PM</td>
<td></td>
<td>Concurrent Session</td>
</tr>
<tr>
<td>4:00 PM – 4:45 PM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:45 PM – 5:00 PM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00 PM – 6:00 PM</td>
<td>Poster Session</td>
<td>Art Exhibit</td>
</tr>
<tr>
<td>6:00 PM – 7:00 PM</td>
<td></td>
<td>Dance Performance</td>
</tr>
</tbody>
</table>

REGISTRATION

7:00 AM – 3:00 PM
4th Floor Registration Window
Keynote
9:00 AM – 11:30 AM

BALLROOM
Science and Society: An Interactive Dialogue with His Holiness the Dalai Lama
Tenzin Gyatso, His Holiness the 14th Dalai Lama
Richard J. Davidson, Center for Investigating Healthy Minds at the Waisman Center, University of Wisconsin-Madison
Amishi Jha, Department of Psychology, University of Miami
This session will involve an interactive dialogue regarding science and society between His Holiness the Dalai Lama and panelists Dr. Richard J. Davidson and Dr. Amishi Jha. The following questions will serve as anchoring themes: As we reflect on the value and benefits of the ongoing 25-year dialogue between Buddhists and scientists, what are the most surprising advances and challenges that have emerged? As contemplative practices are increasingly being incorporated into major sectors of society, from health care and education to business and military applications, are there any guiding principles that should be considered in this proliferation?

NOTE: Doors open at 7:00 AM. Please arrive early. No bags or laptops allowed.
Dreamless Sleep and Consciousness
Evan Thompson, University of British Columbia, Vancouver

One of the major debates in classical Indian philosophy concerned whether consciousness is present in dreamless sleep. Advaita Vedanta, Buddhism, and Sankhya-Yoga argued that consciousness is present in dreamless sleep, whereas Nyaya denies this. Consideration of this debate, especially the reasoning Advaita Vedanta used to rebut the Nyaya view, calls into question the standard neuroscience way of operationally defining consciousness as “that which disappears in dreamless sleep and reappears when we wake up or dream.” The Indian debate also offers new resources for contemporary philosophy of mind. At the same time, findings from cognitive neuroscience have important implications for the Indian debates about cognition during sleep, as well as for Indian and Western philosophical discussions of the self and its relationship to the body. Finally, considerations about sleep drawn from Advaita Vedanta, as well as the Yoga school and Indo-Tibetan Buddhist philosophy, suggest new experimental questions and protocols for the neurophenomenology of sleep and consciousness.

Theme: Philosophy/Humanities

Contemplative Inquiry and Science
Paul Ekman, Paul Ekman Group
B. Alan Wallace, Santa Barbara Institute for Consciousness Studies

Why Don’t We All Have Global Compassion? (Paul Ekman)
Is compassion a gift like athletic skill, only given to the few, or a potential that could be readily activated in all people, and if so how? Trying to answer this question, I outline more than 100 questions for research that could move us forward, a few of which will be presented. I also distinguish two forms of compassion in terms of the immediacy of the compassionate focus, and five more types of compassion in terms of the target of compassion, yielding 10 (2 [immediacy] X 5 [target]) types of compassion without also considering three motivations for compassion. The reason for specifying this taxonomy is to generate researchable questions that could increase the likelihood of attaining global compassion.

What Constitutes Compelling Evidence, And For Whom? (B. Alan Wallace)
“Exceptional claims require exceptional evidence” is often presented as the heart of the scientific method and as a model for critical thinking, rational thought, and skepticism everywhere. Accordingly, materialists view any evidence that is incompatible with their beliefs as highly questionable at best, for such evidence is immediately deemed to be limited, weak, and not enough to overcome the extraordinary nature of these claims. In any interdisciplinary or cross-cultural evaluation of evidence, however, we find that claims that are ordinary for one group are extraordinary for another. For example, the widely held materialistic claim that “the mind is what the brain does,” meaning that it is either identical to the brain or else a function or emergent property of the brain, is widely promoted in scientific journals and the popular media. But careful examination of the evidence for such a belief shows that it is based on inconclusive empirical findings and circular reasoning. From a traditional Buddhist perspective, this is an exceptional claim — one that has never been put to the test of empirical confirmation or refutation — that has been soundly refuted by the evidence gleaned from contemplative inquiry into the origins of consciousness.

Theme: Philosophy/Humanities

Buddhism, Behaviorism, and the Brain: Towards a Better Understanding of the Mechanisms and Mitigation of Craving, Grasping, and Addiction
Sarah Bowen, Departments of Psychiatry and Behavioral Sciences, University of Washington, Seattle
Judson Brewer, Yale School of Medicine and Yale Therapeutic Neuroscience Clinic, Yale University

The seemingly intractable behavioral cycles and suffering of addiction offer a vivid and painful illustration of the necessity and challenge of behavior change. Decades of tireless research on the nature of, and mechanisms underlying, addiction have led to scientific and clinical advances, yet relapse remains the most common outcome for individuals struggling with addictive behaviors. Recently, scientists have turned attention to the integration of ancient and contemporary theories and practices to better understand the learning processes that may underlie craving and addiction, and to develop increasingly effective ways to support sustainable behavior change. This presentation will explore the integration of Buddhist understandings of the nature of craving and attachment with modern behavioral psychology, cognitive neuroscience, and fMRI neuroimaging. We will explore specific classical and operant conditioning-based mechanisms and brain regions implicated in the craving/aversion process underlying habit formation, relapse cycles, and behavior change. We will look at clinical applications based on such models, and will briefly review the evidence base from clinical studies of smoking cessation and alcohol and drug addiction.

Theme: Basic Science, Clinical Science
Contemplative Science Goes to School: Improving the Context for Teaching and Learning in the Elementary School Years Through Contemplative Approaches

Patricia Jennings, University of Virginia
Curry School of Education
Kimberly Schonert-Reichl, Faculty of Education, University of British Columbia

The classroom has been long recognized as an important context for development, particularly during the elementary school years. Optimal learning environments are physically and emotionally safe and provide students with a sense that their thoughts and feelings are valued and respected. This session will focus on the ways in which contemplative approaches can be utilized to improve the classroom context for teaching and learning. More specifically, the results from two recent empirical investigations examining the effectiveness of contemplative programs for teachers and for students will be presented. The two teacher programs that will be discussed include: (1) the CARE for Teachers program, and (2) the SMART in Education program. Both programs integrate mindfulness and emotion skill training to promote teachers’ well-being, efficacy, and mindfulness as a means of improving classroom climate, teacher-student relationships, and student academic and behavioral outcomes. The program for students, called MindUP, is a social and emotional learning curriculum that integrates mindfulness and positive psychology for elementary school students. In the first study, the effectiveness of the CARE program on teacher, classroom, and student outcomes was examined. In the second study, singular and joint effects of SMART in Education and MindUP were examined in relation to classroom context, student-teacher relationships, and student outcomes. Taken together, the results of these studies demonstrate the value of contemplative approaches to improving classroom learning environments and student outcomes. Implications for educational policy and school reform will be discussed.

Theme: Education

The Varieties of Contemplative Experience: Context Matters

Willoughby Britton, Department of Psychiatry and Public Health at Brown Medical School, Brown University Contemplative Studies Initiative, Brown University

Buddhist-derived meditation practices, particularly mindfulness meditation, are being applied to medical conditions, psychiatric disorders, schools, and businesses for stress reduction and the promotion of well-being. These secular applications are largely contextualized in a medical health model, without much attention to or knowledge of traditional Buddhist texts, which carefully outline contemplative practices trajectories and associated experiences. As a result, the widespread application of meditation in clinical and secular settings is proceeding without much knowledge of the full range of experiences that can arise in the context of practice. As more people begin to meditate in the West, more are encountering meditation experiences that are well documented in Buddhist texts yet unexpected in secular contexts. Without adequate knowledge of the range of possible meditation-related experiences, there is a risk that in the secular applications — where meditation training is divorced from its traditional religious, social, and cultural contexts — these experiences could be misunderstood, pathologized, or improperly managed. In order to thoroughly understand the contemplative path and all that it entails, our research team interviewed more than 60 well-known meditation teachers, practitioners, and Buddhist scholars about the range of contemplative experiences that can arise in the context of meditation practices.

Theme: Clinical Science, Basic Science
Concurrent Session 1
3:00 PM – 3:45 PM*

*Note, sessions listed as “Double Session” run from 3:00 PM-4:45 PM.

ARLINGTON

Varela’s Promise: A Search for the Neural Correlates of the Phenomenological Reduction
Ishan Walpola, McGill University, Montreal Neurological Institute

In 1999, alongside Natalie Depraz and Pierre Vermersch, Francisco J. Varela proposed a description of the structural dynamics of becoming aware. This account proceeds through the method of phenomenological reduction (or épochè). For Varela, the emergence of a unified cognitive moment relied upon dynamic links between functionally specialized regions of the brain. We propose an investigative methodology to explore the neural correlates of the phenomenological reduction that is based on evidence of dynamic and flexible coupling between the frontoparietal control network and the default mode network. This coupling might provide a mechanism to account for the three stages of the reduction: (1) suspension of habitual thought and judgment (metacognition via frontoparietal control network activation); (2) conversion of attention from exterior (dorsal attention network coupling) to interior (default mode network coupling) cognition; and (3) letting go, or a receptivity towards experience (frontoparietal network decoupling).

Authors: I Walpola, K Appourchaux, A Raz
Theme: Basic Science

BERKELEY

Remote Emotional Memory for Depictions of Human Suffering Following an Intensive Meditation Intervention
Brandon King, University of California, Davis

Meditation training is presumed to influence individuals’ emotional engagement with others’ suffering. Although evidence is accumulating for the prosocial effects of intensive practice in meditation, little is known about how training may alter primary cognitive representations of compassion-eliciting stimuli. We assessed individuals’ remote (six-year) incidental memory for emotional images viewed both before and after a three-month intensive shamanic retreat. Physiological patterns at initial stimulus encoding suggest that training may selectively enhance negative affect (potentiated startle) and stimulus orienting (cardiac deceleration) to suffering-related, but not fear-related, stimuli. At retrieval, participants were able to differentiate old from new images more than six years after initial exposure, and they showed preferential remembrance of suffering-related stimuli, as assessed via speeded response. We suggest that intensive meditation training strengthens motive system responses to depictions of suffering, leading to extended and elaborated processing, as evident in memory retention over very long intervals.

Authors: BG King, AP Zanesco, PR Shaver, TL Jacobs, SR Aichele, DA Bridwell, KA MacLean, BA Wallace, BK Sahdra, CD Saron
Theme: Basic Science

CLARENDON

Distinctions of Contemplative Practice in Different Religious Traditions and Relevance to Neuroscience
Vera Ketelboeter, MIT

Contemplative practices of the many traditions of the West and of the East have different characteristics. For example, the absorption of mystics (in Christian or Sufi traditions) has a different character than does Buddhist contemplation. Whereas the mystic enters into the subtle domain of mind in the experience of a higher power (in the face of which his sense of separate self is drawn into surrender), the Buddhist faces the root dimension, in the depths of which the sense of “I” versus “other” originates. The structure of egoity (in its identification with the material, “subtle,” and “causal” or “root” dimension) offers a framework for understanding different traditions and their relation to each other.

Authors: V Ketelboeter
Theme: Practice

DARTMOUTH

Validation of the Perceived Compassion Scale
Dent Gitchel, University of Arkansas at Little Rock

A self-report scale measuring perceived compassion, in its embodied and functional aspects, will be presented, including preliminary psychometric validation results. There has been some debate as to whether compassion can be measured through self-report. Neff’s Self-Compassion Scale,
possibly the most widely used instrument, operationalizes compassion in terms of mindfulness, common humanity, and self-kindness. Others (e.g., Gilbert) do not think that compassion can be measured directly. Gilbert, instead, measures fear of compassion in both giving and receiving and toward oneself. This scale attempts to measure compassion as a multidimensional construct based on a secular interpretation of Mahayana Buddhist principles. Some of the relevant dimensions include awareness of suffering in its various levels (e.g., physical, psychological, and spiritual discomfort), equanimity, compassion self-efficacy, and compassion outcome expectations. This scale will be the first to give a comprehensive secular operationalization of both compassion and suffering. Psychometric challenges and limitations of measuring compassion will also be discussed.

Authors: WD Gitchel
Theme: Basic Science

EXETER
Trauma-Informed Mindfulness Based Stress Reduction to Promote Intra- and Interpersonal Flourishing Among Survivors of Traumatic Violence
Amber Kelly, Quinnipiac University

Interpersonal violence is a significant threat to public health with serious ramifications to family and society. Mindfulness based stress reduction (MBSR), originally designed for those dealing with chronic illnesses, is now being offered to individuals with histories of surviving interpersonal violence. Yet, to be optimally effective, MBSR should be modified to address the unique needs of this vulnerable population. This presentation will show the results of one trauma-informed MBSR (TI-MBSR) model for a community-based sample of female interpersonal trauma survivors, using a mixed quantitative-qualitative methodology to assess the effects of the intervention on inter- and intrapersonal flourishing. This study united first-, second-, and third-person methods of inquiry, measuring changes on psychometric measures of depression, posttraumatic stress disorder (PTSD), anxiety, attachment, and relational communication. Follow-up phenomenological interviews were used to enrich and deepen quantitative findings and learn the lived experience of participants in their experience of the program.

Authors: A Kelly, E Garland
Theme: Clinical Science

FAIRFIELD
Can There Be a Jewish Contemplative Studies?
Jay Michaelson, Brown University

As neuroscience and contemplative studies “come of age,” researchers are increasingly inquiring into non-Asian traditions, particularly Abrahamic ones. This paper addresses some of the methodological concerns implicated by this westward turn, focusing on Jewish contemplative practice. First, it provides an introduction to the major phenomenological types of Jewish mystical/contemplative practice. Second, it addresses the nature of methods of Jewish contemplative practice, and third, the experiences (if any) such practices are designed to bring about, as well as the points of similarity and difference from “Buddhist” (chiefly Buddhist modern) practices, as they have been understood (and constructed) by contemplative science. Finally, and focusing primarily on the dissonances between the different approaches, the paper presents a tentative method for including Jewish practitioners in contemplative studies and contemplative neuroscience.

Authors: J Michaelson
Theme: Philosophy/Humanities

MAINE
Dogen’s “Nonthinking”: What the Founder of Soto Zen Can Teach Us About Intentionality and Discrimination During Shikantaza Meditation
Adam Valerio, Temple University

This paper investigates Zen master Eihei Dogen’s emphasis on the role of “nonthinking” (fushiryo) in shikantaza (“just sitting”) meditation by viewing nonthinking as a cognitive process existing in dynamic relation to thinking (shiryō) and not-thinking (fushiryo). Dogen’s ostensibly mysterious shift away from the Ch’an terminology of “no-thought” (mugen) and “no-mind” (mushin) provides vital insight into the cognitive functioning associated with advanced stages of this meditation. Previous scholarly understandings of shikantaza have been limited due to mischaracterizations of the presence, lack, or nature of intentionality, discrimination, and consciousness during the cognitive processes of thinking, not-thining, and nonthinking. Despite mindfulness often being labeled as a metacognitive director of attention, insight into the nature of nonthinking challenges our construction of the relationship between intention and attention, both in reference to the open-monitoring meditation of shikantaza and more broadly in our understandings of how numerous meditative self-cultivation practices function to improve our lives.

Authors: A Valerio
Theme: Philosophy/Humanities

MIT
Deep Reading as Contemplative Practice
Maureen Hall, University of Massachusetts Dartmouth
Aminda O’Hare, University of Massachusetts Dartmouth
Robert Waxler, University of Massachusetts Dartmouth

Deep reading as contemplative practice has implications for a free and democratic society. Sven Birkerts gets the credit for coining the term “deep reading.” Deep reading is about slowing down and activating the power of narrative. Through the activation of mirror neurons, readers are transported to new situations. Mary Helen Immordino-Yang and others add to the growing body of scientific research that is developing an understanding of how mirror neurons help to activate deep reading and how reading happens in the brain. Deep reading has the unique capacity to teach human beings how best to create a narrative self, and, when coupled with focused conversation, how best to create a community for learning — a neighborhood where students and teachers can negotiate meaning together. Deep reading requires human beings to call upon and develop attentional skills to be thoughtful, fully aware, and to participate in a democratic society.

Authors: MP Hall, RP Waxler, AJ O’Hare
Theme: Education, Practice
“This peace, this rest, this eternity”: Meditation and Consciousness in Modernist Literature

Hiie Saumaa, Columbia University

This paper explores the role of the meditative mind in modernist literature and theories of consciousness. Modernist authors, such as Virginia Woolf, Marcel Proust, and William Faulkner, are known for their fascination with subjective perception and self-conscious interiority, as well as representations of trauma and illness. This paper shows how the hitherto unexplored trajectory of the meditative mind provides an intriguing countercurrent to our vision of modernist literature as foregrounding shock and wounds. The paper sheds light on what happens to the concept of meditation when it enters literature and shows that literary authors help us understand the meditative mind.

Authors: H Saumaa
Theme: Philosophy/Humanities

The Social Dimension of Suffering – An Enactive Perspective

Elena Cuffari, University of the Basque Country

We assume that humans are social beings that necessarily and existentially strive for connection and recognition from others. When social interactions fail to contribute to this basic desire, they constitute one of the greatest sources of human suffering. Being with others requires a negotiation between needing to ensure one’s own existence while also recognizing others’ being/needs. Acknowledging this existential struggle calls for an ethical practice in the midst of interacting. We propose an enactive, normative account of co-negotiated self-maintenance in which individuals own their striving for recognition while at the same time sustain openness to the other’s striving. On this approach we assume that some desires, like wanting recognition, are actually existential needs, and that some craving is existentially necessary. We explore ways in which mindfulness helps raise awareness of intra- and inter-individu-
Dancing Compassion: Using Dance to Cultivate Personal and Social Awareness in the Classroom

Judy Austin, Fort Lewis College

This presentation will explore the use of dance and choreographic methodology as embodied practices for guiding classroom explorations of ethical issues and active compassion. Movement is used as the primary medium to discover mindful awareness expanding from the personal to the relational and then to social justice awareness and engagement. This presentation will use themes from Ethics for the New Millennium as a contextual framework for structuring ethical inquiry informed by the writings of John Makransky and others. The curriculum presented here is designed to begin with nonverbal embodied exercises to deepen participants’ experience of presence and loving compassion before layering on cognitive processes. Lesson plans that may be adapted for a variety of ages include a Warm-up, an Experiential Exploration in which to establish familiarity with the tools to be further utilized, an exercise Addressing Specific Content, and ideas for an Artistic Expression of the Concept.

Authors: J Austin
Theme: Arts, Education

The Role of Contemplative Practice in Developing Authentic Leaders

Susan Skjei, Authentic Leadership Program, Naropa University

Recent research in the fields of neuroscience and emotional intelligence point to the importance of authenticity, self-awareness, and interpersonal awareness for effective leadership. However, development of these qualities in leaders has been elusive and difficult to achieve through conventional means. Contemplative practices such as meditation, reflective inquiry, mindful dialogue, and various embodiment disciplines offer specific methods for cultivating awareness and have the potential to be very beneficial for leaders — especially when they are facing challenging workplace situations. Naropa University’s Authentic Leadership certificate program has been offering instruction in a variety of contemplative practices to leaders over the last 12 years. In this interactive workshop, we will explore current challenges facing leaders in business, education, and nonprofit sectors, and experience some of the contemplative practices and methods that are offered in the Authentic Leadership certificate program.

Authors: S Skjei
Theme: Other

Turning Towards or Turning Down? Mindfulness and Relaxation as Distinct Forms of Emotion Regulation

Norman Farb, Department of Psychology, University of Toronto

Mindfulness in the West is often described as a bare attentional process, but it is unclear how such attention regulates emotional arousal to promote well-being. One hypothesis suggests that mindfulness involves “turning towards” experience: Through curiosity, openness, and acceptance, emotional experience is enhanced, and this attentional enhancement obviates the need for other conditioned responses. An alternative hypothesis is that mindfulness involves “turning down” experience, rapidly recognizing emotional perturbations and countering them with a relaxation response. In a neuroimaging study, we compared a Mindfulness-Based Stress Reduction (MBSR) intervention against a Progressive Muscle Relaxation (PMR) active control condition. Relative to PMR, mindfulness training more powerfully increased emotional acceptance, increasing rather than suppressing emotional processing in the brain, and better improving the ability to resist emotional distractors in our experimental task. These findings support the characterization of mindfulness as “turning towards” experience, suggesting that mindfulness and relaxation are effective but distinct regulatory strategies.

Authors: NAS Farb, AK Anderson, K Corcoran, R Bloch, D McKeon, ZV Segal
Theme: Basic Science

Engaged Compassion: Humanizing the Sacred and Secular

Enver Rahmanov, Graduate Theological Union

How can we advance true compassion in an increasingly pluralistic society? My paper will examine some possibilities in the light of ideas postulated by His Holiness the Dalai Lama in his book Beyond Religion, in which he stated that we are born free of religion but we are not born free of the need for compassion. To explore this thought, my paper will first focus on contextual analysis of compassion in religion, particularly in Mahayana Buddhism and Christian Liberation Theology. I will then compare it to a secular understanding of compassion, including as it is generally presented in neuroscience and positive psychology. The goal of my paper will be to contribute to a dialogue on compassion that is recognized both as an active virtue in several sacred traditions and an engaged inner quality in the secular ethics, and on the importance of advancing them equally for broader transformation of the society.

Authors: E Rahmanov
Theme: Philosophy/Humanities
ends, including the training of well-being and psychological health. This panel discusses conceptual issues related to the construct of mindfulness in psychological research and reviews recent, nonclinical work in this area. Instead of proposing a single definition of mindfulness, we favor the view of mindfulness training as a continuum of practices embedded within a variety of axiological frameworks. We map mindfulness-related states and traits into a well-defined multidimensional phenomenological matrix that can readily be expressed into a neurocognitive framework. This phenomenal and neurocognitive matrix of mindfulness is presented as a heuristic to guide formulation of next-generation research hypotheses from both cognitive/behavioral and neuroscientific perspectives. We review selected findings on mindfulness as Organizational Transformation across all schools in teaching and learning, research, engagement, and cross-disciplinary collaboration. The approach has been to assess the organizational culture, intellectual norms, pedagogical practices, and gaps in student outcomes to consider how contemplative ideas, values, and practices can potentially contribute to transformative growth, and then operationalize into a series of strategic initiatives. Six University of Virginia faculty involved in this process from different schools — College of Arts and Sciences, Nursing, Education, and Commerce — will offer insights into this process by which contemplation can function as a gateway to organizational transformation within schools and disciplines, and also between them in new partnerships. In addition to school-specific initiatives, this includes articulating new models of classroom learning that go beyond content acquisition and critical thought, fashioning new partnerships between humanists and scientists, and building innovative models of collaboration between arts and sciences and the professional schools.

Authors: A Lutz, AP Jha, JD Dunne, CD Saron
Theme: Basic Science

DOUBLE SESSION
3:00 PM – 4:45 PM
SALON C - D
Contemplation as Organizational Transformation in a Research I University: The University of Virginia as a Case Study
Dorothea Bach, University of Virginia
Susan Bauer-Wu, University of Virginia
David Germano, University of Virginia
Patricia Jennings, University of Virginia
David Mick, University of Virginia
Kurtis Schaeffer, University of Virginia
The founding of the Contemplative Sciences Center at the University of Virginia provided an opportunity for institutional transformation across all schools in teaching and learning, research, engagement, and cross-disciplinary collaboration. The approach has been to assess the organizational culture, intellectual norms, pedagogical practices, and gaps in student outcomes to consider how contemplative

light of this cultural diversity, does recent data from developmental and cross-cultural psychology provide evidence for relevant kinds of universality among human beings? Further, can this psychological data serve as evidence that certain behaviors or attitudes, such as compassion, should be cultivated by all human beings? And finally, how do specific conceptions of prosocial behavior, secular education, and human goodness impact the design of Buddhist-based contemplative trainings and scientific research on these interventions?

Authors: JH Davis, PC Condon, G Desbordes, HY Weng, EE Robbins, JJ Makransky, BD Dodson-Lavelle
Theme: Basic Science, Clinical Science, Education, Philosophy/Humanities

DOUBLE SESSION
3:00 PM – 4:45 PM
SALON F
Can We Measure Mental Balance? Scientific and Contemplative Perspectives On Equanimity
Gaëlle Desbordes, Athinoula A. Martinos Center for Biomedical Imaging
Dusana Dorjee, Centre for Mindfulness Research and Practice, Bangor University
Elizabeth Hoge, Massachusetts General Hospital and Harvard Medical School
Catherine Kerr, Translational Neuroscience, Contemplative Studies Initiative; Department of Family Medicine, Brown University
Sara Lazar, Psychiatry, Massachusetts General Hospital
Andrew Olendzki, Barre Center for Buddhist Studies
David Vago, Harvard Medical School
In light of a growing interest in contemplative practices such as meditation, the emerging field of contemplative science has been challenged to describe and objectively measure how these practices affect health and well-being. We recently proposed that equanimity could serve as a measurable outcome of contemplative practices, both in basic science investigations and in clinical applications. Equanimity can be defined as an even-minded mental state or dispositional tendency.
toward all experiences or objects, regardless of their origin or affective valence (pleasant, unpleasant, or neutral). In this panel, we will define equanimity from the perspective of both classical Buddhism and modern psychology, and present recent psychological, physiological, and neuroimaging data that have been used to assess equanimity, either directly or indirectly. In conclusion, we propose that equanimity captures potentially the most important psychological element in the improvement of well-being through contemplative practice, and therefore should be a focus in future research.

Authors: G Desbordes, A Olendzki, DR Vago, EA Hoge, T Gard, SW Lazar, CE Kerr, D Dorjee
Theme: Basic Science, Philosophy/Humanities

DOUBLE SESSION
3:00 PM – 4:45 PM
SALON G
Yoga’s Self-Regulatory Functions in Promoting Psychological Health: A Proposed Model
Jessica Noggle-Taylor, Harvard Medical School
Crystal Park, University of Connecticut
David Vago, Harvard Medical School
Angela Wilson, Kripalu Center for Yoga and Health

Research suggesting beneficial effects of yoga on myriad aspects of psychological health has proliferated in recent years, yet there is currently no overarching framework by which to understand yoga’s beneficial effects. In this session, we provide a theoretical framework and systems-based conceptual model of yoga that focuses on self-regulation. We begin by contextualizing yoga in historical and contemporary settings, and then detail how specific components of yoga practice may affect cognitive, emotional, and behavioral systems under stress and result in physical and psychological health. The model describes yoga as a comprehensive skillset of behaviors that facilitate bidirectional feedback between, and integration of, top-down executive control processes and bottom-up viscerosomatic processes in the context of autonomic and emotion-adaptive behaviors. We will present the clinical relevance and available evidence for yoga affecting self-regulatory pathways integrating data from the extant psychological, physiological, and cognitive neurosciences in support of this model.

Authors: A Wilson, T Gard, J Noggle-Taylor, C Park, D Vago
Theme: Basic Science, Philosophy/Humanities

DOUBLE SESSION
3:00 PM – 4:45 PM
SALON H - I
Philosophical Foundations for Contemplative Pedagogy in Higher Education: New Research in the Field
Susan Burggraf, Naropa University
Barry Kroll, Lehigh University
Erin McCarthy, St. Lawrence University
Harold Roth, Contemplative Studies Initiative, Brown University
Judith Simmer-Brown, Contemplative and Religious Studies, Naropa University

As the field of contemplative education in higher education enjoys unprecedented growth and more and more faculty across disciplines are integrating contemplative pedagogical practices in their classrooms, it is vital to continue building the relatively new theoretical foundations for the field. This panel brings together five of the most innovative academics who are developing new theoretical foundations for contemplative education: Susan Burggraf (Naropa University), “Contemplative Modes of Inquiry in the Context of Adult Development”; Barry Kroll (Lehigh University), “Contemplative Practice and Argumentation”; Erin McCarthy (St. Lawrence University), “Synergies: Comparative Feminist Philosophy and Contemplative Education”; Harold Roth (Brown University), “No-Person Learning in the Context of Integrative Contemplative Pedagogy (ICP)”; and Judith Simmer-Brown (Naropa University), “Ethical Considerations in Contemplative Teaching.”

Authors: S Burggraf, B Kroll, E McCarthy, H Roth, J Simmer-Brown
Theme: Education

DOUBLE SESSION
3:00 PM – 4:45 PM
SALON J - K
Neurocognitive Processes of Addiction: A Therapeutic Role for Mindfulness?
Brett Froeliger, Department of Neuroscience, Medical University of South Carolina
Eric Garland, Integrative Medicine, College of Social Work and Huntsman Cancer Institute, University of Utah
Zev Schuman-Olivier, Harvard Medical School/Cambridge Health Alliance

Several neurocognitive processes have been implicated in addiction, including motivated attention, reward processing, emotion regulation, stress reactivity, delay discounting, and inhibitory control. These processes appear to depend on functionally integrated cortico-limbic-striatal circuits whose dysfunction supports the acquisition, maintenance, and reinstatement of addictive behaviors. Novel interventions that target the neurocognitive processes underlying addictive behavior may hold promise as effective treatments for persons with substance-use disorders. While an emerging body of evidence suggests a potential therapeutic effect of mindfulness-based interventions (MBIs) for people with substance-use disorders, this effect may be mediated through multiple mechanisms. This panel presentation includes data from several studies using behavioral neurocognitive measures to investigate the effects of mindfulness training and dispositional mindfulness on neurocognitive processes among people with substance-use disorders. A theoretical model describing how mindfulness can modulate these neurocognitive processes among people with substance-use disorders will be discussed.

Authors: B Froeliger, EL Garland
Theme: Clinical Science
Mindfulness in Education for Teachers and Students

Lisa Flook, Center for Investigating Healthy Minds, University of Wisconsin, Madison

Simon Goldberg, University of Wisconsin-Madison

Early childhood is an especially sensitive period in life, and a time when the brain undergoes rapid development. As such, training during this period has the potential for significant and lifelong impact. Educators of young children play a pivotal role in shaping student outcomes and success. Therefore, we are harnessing mental training techniques that have been shown to promote mental and physical health in various contexts, and applying them in early education settings within public schools. We will present findings from research on mindfulness training with teachers and preschool students. Elementary school teachers who participated in an eight-week modified mindfulness-based stress reduction training showed reduced stress and burnout, increased self-compassion, and improvements in classroom teaching practices. Among preschoolers who received training in a 12-week kindness curriculum, findings demonstrate increased self-regulation and prosocial behavior as compared to a waitlist control group. Implications of this research and future directions will be discussed.

Authors: L Flook, SB Goldberg, RJ Davidson  
Theme: Education

The Social Side of Mindfulness: From Lab to Life

Jordan Quaglia, Virginia Commonwealth University

Traditional contemplative perspectives emphasize social benefits of mindfulness and meditation, yet little research has investigated their social implications. Social situations involve distinct challenges for regulating affect, including the involvement of others’ emotions. This presentation briefly summarizes our prior lab-based work demonstrating that trait mindfulness predicts neural and behavioral responses consistent with efficient top-down attention to and discrimination of others’ emotions. I then discuss a new study examining mindful emotion regulation in real-life social contexts. In 36 romantic couples, we assessed each partner’s trait mindfulness and Emotional Go/No-Go performance prior to experience sampling of emotions and felt connection with others during social interactions. Concurrent actor-partner analyses revealed that Emotional Go/No-Go performance mediated the relation between mindfulness and emotional well-being in real-life social interactions, and emotional well-being mediated the relation between mindfulness and felt social connection. Results suggest that mindful attention to one’s own and others’ emotions supports emotional well-being and felt connection with others in daily social life. These findings, bridging lab-based and real-life measures of social experience, offer an empirical foundation for advancing research on benefits of contemplative training for self and other.

Authors: J Quaglia  
Theme: Basic Science
texts? How do we forge a radical, integral, contemplative education that challenges the “pathology of normalcy” (Fromm) and does not succumb to technocracy, materialism, or spiritual bypassing?

Authors: D Forbes
Theme: Education

DARTMOUTH
Mindful Games: Games as a Tool for Meditation and Reflection
Wanda Gregory, University of Washington
Most think of games today as encouraging violence or addiction amongst their players. However, there is a growing trend in the game industry towards the development of games that encourage a more contemplative, reflective form of gameplay. This presentation looks at the possibility of games becoming the modern form of meditation. Games are already being used to help patients deal with the adverse effects of chemotherapy brain injuries, posttraumatic stress disorder (PTSD), stress, and depression. Games have been found to be successful as a way of enhancing cognitive functions through trends in what is called “neurogaming.” There are games for the body and mind, so why not the soul? This presentation will explore how games can be used to help encourage a more mindful state, and look at examples of games from the past, present, and future that fall under this category.

Authors: W Gregory
Theme: Education, Practice

EXETER
How Contemplative Practice Infuses Clinical Practice with Serious Illness
Anthony Back, University of Washington
Physicians and nurses who work with patients dealing with serious, life-threatening illness experience stress, empathic overload, compassion fatigue, and burnout. In this qualitative study funded by the Mind & Life Institute and the John Templeton Foundation, we are conducting extended qualitative interviews with at least 25 clinicians with an established contemplative practice in the Buddhist tradition. Our aim is to understand the first-person perspective on how these practitioners bring or draw on their contemplative practice as clinicians. In particular we are probing issues that include stress, moral distress, empathic overload, and burnout, but also the effects of training attention, enhancing emotional self-regulation, and working from an intention to relieve suffering. Results of the qualitative analyses will be presented, with anonymized quotes from the interviews and observation.

Authors: A Back
Theme: Clinical Science

FAIRFIELD
Contemplative Neuroscience, the Phenomenology of Attention and the Mereology of the Subject
Sean Smith, University of Toronto
In this paper, I argue that results from contemplative neuroscience can help resolve a dispute between Husserl and Gurwitsch regarding whether attention is endogenous or exogenous. The empirical results indicate that attention is endogenous, i.e., that we are subjectively aware — and to a certain extent in control — of the direction of our attention. Thus, there can be no proper account of the phenomenology of attention that does not describe what it is like to attend from the side of the subject. If that is the case, then this result also bears on an important issue at the heart of Buddhist metaphysics: the mereology of the subject or the nature of the self. I will argue that the mereological nihilism inherent in the Abhidhamma tradition is false, and that the notion of “not-self” must be understood in a more nuanced way in light of these results.

Authors: S. Smith
Theme: Philosophy/Humanities

HARVARD
Stress Mitigation with Mindful Embodied Techniques in a Basic Science Class
Carol Worthman, Emory University
Basic sciences in higher education confront a paradox, reaching the minds of many and the hearts of few. Compulsory requirements for graduation or professional schools push a high course demand, large classes, and a culture of Darwinian grading that contribute to student performance anxiety, fear of failure, intellectual disengagement, and a test-driven approach to content. A professor specializing in stress who teaches a large requirement-fulfilling undergraduate human biology course partnered with a yoga-adept graduate student to implement a class redesigned so as to mitigate stress triggers and engage students with course content through their own embodied experience. Construction of class dynamics and five week-long explorations aimed to cultivate a mindful approach to human biology and its connection to lived experience through kinesthetics, breath, emotions, sleep, and nutrition. We report qualitative and quantitative student performance outcomes.

Authors: CM Worthman, P Dallaghan
Theme: Education

MAINE
Prospects for an Empirical Research of Buddhist Religious Practice from within Buddhist Contexts
Bhikshuni Trinlae, Practical Theology, Claremont School of Theology
I argue for a contemporary academic theological discipline of Buddhist empirical practical theology, wherein qualitative and quantitative contemplative research of the lived experience of Buddhist religion is systematically conducted from within the historical, cultural, and social contexts of religious practice. After briefly reviewing certain philosophical issues with respect to a specifically Buddhist practical theology, I demonstrate how traditionally Christian academic practical theology models can be generalized to enable empirical research and pragmatic reflection on praxis in a wide range of contexts of the lived experience of Buddhist practitioners. Buddhist meditators, congregations, clergy, teachers, leaders, and scholars can all benefit from increased scholarly discourse focused on issues of praxis. More generally, this argument extends beyond the contexts of Buddhism to any religion or spiritual tradition. The scope for scholarship within non-Christian religions, as
Buddhist Meditation and Psychophysical Actor Training

Franc Chamberlain, Drama, Theatre and Performance, University of Huddersfield
Deborah Middleton, Drama, University of Huddersfield

This panel explores relationships between meditation, Buddhism, and psychophysical actor training. Despite the flourishing of research into the effects of meditation in health, education, and other contexts, there have to date been few reports on the contribution of meditation to the performing arts, and even less attention paid to the ways in which acting and actor training can contribute to a broad understanding of the nature and role of contemplative modalities. This international panel comprises artists and academics whose research and practice explore the dialogue between the insights and techniques of the Buddhist meditation tradition and the embodied psychophysical experiences of the actor. We will discuss the potentials for contemplative performance to embody, and engage audiences in, experiences of mindful awareness. The session will include short practical demonstrations and the opportunity for discussion.

Authors: F Chamberlain, D Plá, D Middleton
Theme: Arts

NEW HAMPSHIRE

Exploring Sleep Paralysis

Terje Sparby, Bender Institute of Neuroimaging, Justus Liebig University Giessen

The exploration of non-ordinary states of consciousness can have a potentially deep impact on our understanding of ourselves and the world. These states, however, are difficult to bring into a scientific discourse due to issues connected to their properties of reproducibility and ineffability. But these obstacles do not pose impossible challenges. Recently, there has been rapid progress on this front within the field of sleep research. In this article, I present my work on the sleep paralysis state from an interdisciplinary perspective that draws on phenomenology, the humanities, psychology, and neuroscience. I consider different hypotheses about the phenomena typically connected to the state, ranging from depictions as hallucinations (paranoid delusions, a manifestation of social anxiety, projections of our own selves) to considering them as spiritually significant (as in the indigenous Hmong worldview). Based on this, I suggest ways of approaching the topic of non-ordinary states in general, and sleep paralysis in particular, from a neurophenomenological perspective.

Authors: T Sparby
Theme: Philosophy/Humanities

PROVINCE TOWN

The Tears of a Scholar: Bringing Mindfulness into Higher Education

Laurie Cozad, Division of Interdisciplinary Inquiry, Lesley University
Susan Gere, Division of Counseling and Psychology, Lesley University
Catherine Koverola, Graduate School of Arts and Social Sciences, Lesley University
Nancy Waring, Mindfulness Studies Program, Lesley University

Deep feeling for life characterizes monks, healers, and scholars. However, the current context of higher education in the United States leaves behind the quest for meaning in favor of corporate cost cutting and employment-focused endeavors by which we are judged. This panel of scholars seeks to share the ongoing process of creating a master’s degree program that integrates the heart of ancient practices for awareness and transformation with religious studies and critical inquiry.

Authors: S Gere, C Koverola, N Waring, L Cozad
Theme: Education
REGIS

“Interaction First”: How Gendlin’s Process Philosophy Grounds the First Person Perspective
Donata Schoeller, University of Chicago
Eugene Gendlin’s “focusing” is frequently referred to as a Western form of meditation. Attention toward “felt meaning” and the experiential effects of verbalization enable a deep sense-making process. It is used in psychology, pedagogy, qualitative research, creative work, and in meditation retreats. Besides his acclaimed research in psychology, Gendlin is also a philosophical “pioneer” (Petitmengin) in describing and conceptualizing a microgenetic and responsive nature of experience. His “Process Model” conceives the body in ways that allow a different thinking about time, space, perception, behavior, language, and feeling. Drawing on the traditions of phenomenology, classical pragmatism, Wittgenstein, and psychotherapeutic research and practice, Gendlin lays out a responsive, embodied and interactive ground for understanding cognition and language that is carried forward by the very way we think, feel, and experience.
Authors: E Casey, N Dunaetz, D Schoeller
Theme: Philosophy/Humanities

WELLESLEY

Transforming Moral Distress: Lessons from Philosophy, Neuroscience, and Contemplative Practice
Alisa Carse, Philosophy, Georgetown University
Cynda Rushton, Johns Hopkins University Berman Institute of Bioethics and School of Nursing
For clinicians exposed daily to pervasive suffering, death, and moral conflict in their work, maintaining composure, courage, and resilience is especially difficult and can lead to moral distress. In this experiential, interactive workshop, we will present collaborative work, supported by the Mind & Life Institute, between clinicians, philosophers, and leaders in contemplative practice and neuroscience. We will showcase a theoretical framework in which the challenges of moral distress are analyzed and an understanding of its moral costs are sharpened and expanded. We will identify promising strategies based on social psychology and neuroscience that have been pilot tested with clinicians in an academic medical center. We will demonstrate simple contemplative practices aimed at stabilizing the emotional and mental continuum so that courage, compassion, and resilience can arise to support moral responsiveness and morally grounded action.
Authors: C Rushton, A Carse
Theme: Basic Science, Philosophy/Humanities

VERMONT

A Profile Is Not a Self: A Buddhist Critique of Privilege and Power in the Construction of Social Media Platforms
Kevin Healey, Media Studies, University of New Hampshire
Rich Potter, University of Illinois at Urbana-Champaign
Taking as our starting point the appropriation of Buddhist principles such as “mindfulness” by Silicon Valley organizations, this paper outlines a normative framework for the critique of constructions of the self in online platforms, with a primary emphasis on Facebook. Through an analysis of public statements from CEO Mark Zuckerberg, we highlight tensions between the particular constructions of the self afforded by Facebook’s platform and Buddhist understandings of the self as articulated by Ron Purser, David Loy, and James Austin. We argue that Zuckerberg’s pronouncements about privacy, sharing, openness, and connectivity represent an ideological view of the self that reflects issues of power and privilege pervasive among Silicon Valley organizations — namely, the role of marketing and data collection in constraining users’ experience and exacerbating social and economic inequality. We conclude by outlining strategies for addressing these issues of privilege and power at both individual and institutional levels.
Authors: K Healey, R Potter
Theme: Philosophy/Humanities

YARMOUTH

Mind the Gap in Resilience: Opportunities to Mapping Community Needs in Health
Edna Kahhale, Catholic University of São Paulo
Aurea Pascalicchio, Health Institute, Catholic University of São Paulo
Resilience is an essential ingredient to a healthy life. The world population is getting older. The study of the phenomenon of resilience has often been examined in the psychological domain, but its complexity requires further investigation from both conceptual and methodological perspectives. The interdisciplinary approach is important to understand mind-body practices and their effects on health. Studies show how contemplative practices help people change in ways that promote a reduction in suffering and improve resilience. The paper being presented is a literature review exploring the conversations around resilience, contemplative practices, and qualitative methodology.
Authors: AAE Pascalicchio, EMP Kahhale, CA Araujo
Theme: Other
### POSTER SESSION AT A GLANCE

<table>
<thead>
<tr>
<th>#</th>
<th>SESSION TITLE</th>
<th>AUTHORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Emotion Regulation, Reappraisal, and Heart-Rate Variability</td>
<td>JR Krygier, JA Heathers, JJ Gross, MJ Abbott, AH Kemp</td>
</tr>
<tr>
<td>2</td>
<td>Bhastrika Pranayama Training Decreases P300 latency and Increases its Amplitude on Physically Fit Soldiers</td>
<td>DF Santaella, AM Ribeiro, RH Silva, KC Andrade, DB Araujo</td>
</tr>
<tr>
<td>3</td>
<td>Expanding Awareness: Paying Attention to a Functional Magnetic Resonance Imaging Study from South Africa</td>
<td>K Fitzgerald, P Luck, BJM Steyn, EM Meintjes</td>
</tr>
<tr>
<td>4</td>
<td>The Impact of Mindfulness on Cognition-Emotion Interactions</td>
<td>AJ O’Hare, MP Hall, EG Ames, R Harenberg</td>
</tr>
<tr>
<td>5</td>
<td>Reduced Response to Stressful Events during Chanting Amitofo: A Combined fMRI and EEG study</td>
<td>JL Gao, HH Sik, JC Fan, B Wu, PCW Fung, Albert So, CQ Chang, ZG Zhang, YS Hung</td>
</tr>
<tr>
<td>6</td>
<td>A Revolutionary Healing Method of Mindfulness: Bridging the Body and Mind Through Body-Based High Level of Perception (BBHP) Training</td>
<td>S Kim</td>
</tr>
<tr>
<td>7</td>
<td>Mindfulness May Reduce Cognitive and Attitudinal Emphasizes on Negativity</td>
<td>LG Kiken, NJ Shook</td>
</tr>
<tr>
<td>8</td>
<td>Mind the Trap: Mindfulness Practice Reduces Cognitive Rigidity</td>
<td>J Greenberg, K Reiner, N Meiran</td>
</tr>
<tr>
<td>9</td>
<td>Comparing Physiological, Psychological, and Social Outcomes Across Meditative Practices</td>
<td>VL Kettering, G Zahedzadeh, JA Barraza, ML Spezio, PJ Zak</td>
</tr>
<tr>
<td>10</td>
<td>Contemplative Practice Correlates of Mindfulness, and Mystical and Kundalini Experiences</td>
<td>JM De Castro</td>
</tr>
<tr>
<td>11</td>
<td>Mindfulness and the Nociceptive Processing of Painful Stimuli</td>
<td>EW Gossett, K Wesson-Sides, SC Terry, K Bennett, HW Bulls, BR Goodin</td>
</tr>
<tr>
<td>12</td>
<td>Mindfulness Disposition, Emotion Regulation Ability, and Strategy Use in Older and Young Adults</td>
<td>B Schirda, A Aldao, RS Prakash</td>
</tr>
<tr>
<td>13</td>
<td>Higher Levels of Trait Mindfulness Are Associated with Enhanced Proactive Control Abilities in Older Adults</td>
<td>S Fountain-Zaragoza, R Prakash</td>
</tr>
<tr>
<td>14</td>
<td>Mindfulness and Critical Thinking: Investigating Theoretical Links and the Role of Executive Functioning</td>
<td>C Noone, MJ Hogan</td>
</tr>
<tr>
<td>15</td>
<td>The Effect of Mindfulness on Error Processing Using a Dispositional and an Experimental Approach</td>
<td>K Eichel, J Stahl</td>
</tr>
<tr>
<td>16</td>
<td>Mindfulness-Based Stress Reduction (MBSR) and the Moderating Effects of Distress Tolerance</td>
<td>MJ Gawrysiak, SN Grassetti, S Leong, MJ Baime</td>
</tr>
<tr>
<td>17</td>
<td>Effects of Age, Emotional Flexibility, and Cognitive Abilities on the Effectiveness of Regulating Sadness Using the Acceptance Strategy</td>
<td>M Lohani, DM Isaacowitz</td>
</tr>
<tr>
<td>18</td>
<td>Long-Term Psychological Effects of Intensive Meditation Retreats for Teenage Youth</td>
<td>BM Gallia</td>
</tr>
<tr>
<td>19</td>
<td>Side Effects of Meditation: A Survey Among Spanish Meditators</td>
<td>A Cebolla, J Garcia-Campayo, M Demarzo, J Soler</td>
</tr>
<tr>
<td>20</td>
<td>Evidence of Validity of the Brazilian Version of the Five Facet Mindfulness Questionnaire (FFMQ)</td>
<td>VV Barros, EH Kozasa, ICW Souza, TM Ronzani</td>
</tr>
<tr>
<td>21</td>
<td>A Qualitative Study of the Experiential Micro Processes of Insight Meditation Using Novel Phenomenological Interview Methods</td>
<td>W Rietdijk, SJ Parsons, J Byrne</td>
</tr>
<tr>
<td>22</td>
<td>Leaders’ Lived Experience of Authentic Moments: A Mindful Inquiry</td>
<td>S Skjei</td>
</tr>
<tr>
<td>23</td>
<td>Self-Identity Construction and Contemplative Practice: A Qualitative Analysis of First Person Narrative Accounts</td>
<td>A Puche, L Botella</td>
</tr>
<tr>
<td>#</td>
<td>SESSION TITLE</td>
<td>AUTHORS</td>
</tr>
<tr>
<td>----</td>
<td>-------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>29</td>
<td>Feedback Mechanisms at the Heart of Science and Contemplative Traditions</td>
<td>W Lukas</td>
</tr>
<tr>
<td>30</td>
<td>The Systematic Innovation and Application of Brain-Based Meditation</td>
<td>PG Grossenbacher</td>
</tr>
<tr>
<td>31</td>
<td>Open Sharing Culture in Basic Research of the Life Sciences</td>
<td>A Scheer, J Schön</td>
</tr>
<tr>
<td>32</td>
<td>Neuroanthropology of Music</td>
<td>N Araneda Hinrich</td>
</tr>
<tr>
<td>33</td>
<td>Remembering the Legacy of Dr. Jacobo Grinberg-Zylberbaum’s Laboratory in Mexico City, 20 Years Later</td>
<td>LB Attie, A Valle, M Romano</td>
</tr>
<tr>
<td>36</td>
<td>Contemplative Practices for Persons with Early-Stage Dementia and their Family Care Partners: Fostering Well-Being and Connectedness</td>
<td>S Bauer-Wu, K Hepburn, A Jha, J Lau, S Negi, B Patterson, R Whitworth, D Ducar, S Liang</td>
</tr>
<tr>
<td>37</td>
<td>Mindfulness Meditation Lowers Blood Pressure and Sympathetic Activity in Hypertensive Patients with Chronic Kidney Disease</td>
<td>S Bauer-Wu, J Park</td>
</tr>
<tr>
<td>39</td>
<td>Scaling Up: Making Mindfulness Approachable Without Diluting the Practice</td>
<td>S Serotkin</td>
</tr>
<tr>
<td>40</td>
<td>Meditation for Adults with Neurological Conditions</td>
<td>GY Yeh, CE Kerr, J Wolkin, RB Davis, Y Tan, R Burch, R Paulsen, R Spaeth, R Wall, J Walsh, TJ Kaptchuk, P Wayne, DZ Press, TT Houle, J Kong, E Loder, RS Phillips</td>
</tr>
<tr>
<td>42</td>
<td>Pilot Randomized Controlled Trial of MBSR Versus Progressive Muscle Relaxation to Reduce Symptoms of Distress Among Elderly Dementia Caregivers: One Year Post-Intervention Result</td>
<td>R O'Donnell, A Kaszniaik, S Ziebell, M Menchola</td>
</tr>
<tr>
<td>43</td>
<td>Mindfulness and the Transformation of Despair: Findings from a Trial of Mindfulness-Based Cognitive Therapy for Prevention of Suicidal Depression</td>
<td>T Barnhofer, C Crane, M Fennell, R Crane, S Silverton, I Russell, JMG Williams</td>
</tr>
<tr>
<td>44</td>
<td>The Mind in Labor: Employing Mindfulness to Alleviate Fear and Pain of Childbirth</td>
<td>LG Duncan, MA Cohn, JG Cook, FM Hecht, N Baradace</td>
</tr>
<tr>
<td>45</td>
<td>The Differential Impact of Three Contemplative Practices on Posttraumatic Stress Disorder Among Veterans</td>
<td>D Colgan, H Wahbeh, M Christopher, P Michael</td>
</tr>
<tr>
<td>46</td>
<td>Examining Self-Compassion Versus Mindfulness-Based Interventions Towards Emotion Regulation in Binge Eaters</td>
<td>A Borg</td>
</tr>
<tr>
<td>47</td>
<td>The Relationship Between Mindfulness Practice and Sleep Quality and Therapeutic Consequences</td>
<td>B Bough, D MacCarthy-Bough</td>
</tr>
<tr>
<td>48</td>
<td>Mindfulness and Its Multidimensional Contributions to Workplace Resilience</td>
<td>C Lyddy, K Julliard</td>
</tr>
<tr>
<td>49</td>
<td>It’s Not All About the Doctor: Barriers to Compassionate Care in Medicine</td>
<td>A Fernando, N Consedine</td>
</tr>
<tr>
<td>50</td>
<td>Effects of Mindfulness Based Dementia Care on Caregiver Well-Being: A Quasi-Experimental Study</td>
<td>S Tibrewal, M Manteau-Rao, L Wong, K Sniffen</td>
</tr>
<tr>
<td>51</td>
<td>Mindfulness as Resilience to the Impact of Adverse Childhood Experiences on Adult Health</td>
<td>RC Whitaker, T Dearth-Wesley, RA Goode, BD Becker, KC Gallagher, BS McEwen</td>
</tr>
<tr>
<td>52</td>
<td>A Mindfulness Group with Early Intervention Crisis Clients: Hard Lessons and Sparkling Moments</td>
<td>JF Casado Perez, K Hayes</td>
</tr>
<tr>
<td>53</td>
<td>Using Mental Noting to Cope with Suicidal Thinking</td>
<td>S Barnes, N Bahraini, J Forster, T Hernandez, L Brenner</td>
</tr>
<tr>
<td>54</td>
<td>The Langauging of Mindfulness Based Stress Reduction’s (MBSR) Body Scan: Cultivating Self-as-Process</td>
<td>MHB Bamberg, SJ Dreeben, P Salmon</td>
</tr>
<tr>
<td>55</td>
<td>Mindfulness in Two Cultural Contexts: Hawaii and Vietnam</td>
<td>TN Le, DT Trieu, KP Le</td>
</tr>
<tr>
<td>56</td>
<td>A Study: To Find the Relationship between Smoking Behavior and “Life Effectiveness” of Modern Youth of Delhi, Meerut (U.P.) and Bangalore (Karnataka)</td>
<td>R Kumar, P Chaudhary, S Bharti, S Saxena</td>
</tr>
<tr>
<td>57</td>
<td>Meditation Practice: Its Potential Role in Stroke-Related Visual Field Defect Rehabilitation</td>
<td>GSzatmary, T Polgar</td>
</tr>
<tr>
<td>58</td>
<td>Attention Deficit Hyperactivity Disorder and Buddhism</td>
<td>H Madrazo</td>
</tr>
<tr>
<td>59</td>
<td>Beyond the Tyranny Of Traumatic Language: EMDR &amp; Yoga, A Method To Heal The Mind &amp; Own The Body</td>
<td>R Lebra Azpiruza (PhD), R Lescano (MD)</td>
</tr>
<tr>
<td>60</td>
<td>The Destructive and Healing Components of Interpersonal Engagement: Integrating Neuroscience into Trauma Counseling and Resiliency</td>
<td>LA Copley</td>
</tr>
<tr>
<td>61</td>
<td>Contemplative Reflection for the Recovery of Health and Wellness</td>
<td>M LaMasa-Schrader</td>
</tr>
<tr>
<td>#</td>
<td>SESSION TITLE</td>
<td>AUTHORS</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>62</td>
<td>The Mindfulness Allies Project</td>
<td>H Blum</td>
</tr>
<tr>
<td>63</td>
<td>Freedom from Suffering: An Ethnographic Research Proposal on the Emergent Work of Buddhist Contemplative Care Chaplains</td>
<td>SA Ulrey, P Valera</td>
</tr>
<tr>
<td>64</td>
<td>Compassion Meditation Effects on Early Stages of Alzheimer’s Disease</td>
<td>Renqindongzhugu, Huaqingcuo, Renzengduoije</td>
</tr>
<tr>
<td>65</td>
<td>The Hungry Ghost: A Biospsychosocial Perspective on Addiction, from Heroin to Workaholism</td>
<td>G Mate</td>
</tr>
<tr>
<td>66</td>
<td>Practical Application of Mindfulness and Meditation in Mental Health/Addiction Treatment Settings</td>
<td>DL Smith</td>
</tr>
<tr>
<td>67</td>
<td>Mindfulness Training in the Perinatal Period Increases Flexibility in Processes of Parent-Child Attunement and Parental Self-Regulation</td>
<td>C Shaddix, LG Duncan, JG Cook, N Bardacke, D Dorjee</td>
</tr>
<tr>
<td>68</td>
<td>Understanding the Behavioral Impacts of Teaching Mindfulness to Elementary Students: A Case Study of One Elementary Classroom</td>
<td>AM Rossi, B Dray</td>
</tr>
<tr>
<td>69</td>
<td>MindUp Program Results on Third-Grade Class: A Quasi-Experimental Study</td>
<td>JS Carvalho, AM Pinto, J Maroco</td>
</tr>
<tr>
<td>70</td>
<td>Children’s Perceptions of the MindUP Program</td>
<td>J Maloney, J Whitehead, M Lawlor, K Schonert-Reichl</td>
</tr>
<tr>
<td>71</td>
<td>Three-Year Follow-Up Evaluation of a Mindfulness Plus Mental Imagery-Based College Student Achievement Program</td>
<td>A Burke</td>
</tr>
<tr>
<td>72</td>
<td>The Feasibility of a Peer-Led Mindfulness Intervention</td>
<td>M Danilewitz, D Koszycki, J Bradwejn</td>
</tr>
<tr>
<td>73</td>
<td>Mindfulness as Mortar for the Schoolhouse: Using Mindfulness Meditation to Increase Student Well-Being, Awareness, and Sense of Self-Agency</td>
<td>A Kasten-Daryanani, P Garner</td>
</tr>
<tr>
<td>74</td>
<td>Benefits of Mindfulness Meditation for College Students Who Are Army Veterans</td>
<td>Il Grichtchenko</td>
</tr>
<tr>
<td>75</td>
<td>Mindfulness Reduces the Effects of Loneliness on Academic Achievements</td>
<td>E Rosenstreich, M Margalit</td>
</tr>
<tr>
<td>76</td>
<td>The Emergence of Academic Mindfulness Centers Associated with Medical Schools</td>
<td>N Barnes, DS Black, P Hattan, Z Schuman-Olivier</td>
</tr>
<tr>
<td>77</td>
<td>Contemplative Practice, Metacognition, and Physics Problem Solving</td>
<td>Z Krusberg, B Wills</td>
</tr>
<tr>
<td>78</td>
<td>An Empathetic Beginning in Education: Exploring the Prospects of Self-Regulation Skills on Pro-Social Behavior in the Early Childhood Environment</td>
<td>E Willis</td>
</tr>
<tr>
<td>79</td>
<td>Promoting Reconciliation Through Contemplative Christian Spiritual Formation</td>
<td>MT Beatty</td>
</tr>
<tr>
<td>80</td>
<td>Attracting Students to Contemplative Practice: Biofeedback Interventions</td>
<td>CS Austad, MS Gendron, S Geiling, C Hoetger, D Pagliarello, C Green, A Shaker, P Cayton</td>
</tr>
<tr>
<td>81</td>
<td>Compassion in Education</td>
<td></td>
</tr>
<tr>
<td>82</td>
<td>Inspirations for Young Mind: Caring for Water Through Mindful Design Practice</td>
<td>KC Andrahennadi, S Baxter, R Tultu Rinpoche, LE Rodriguez, DL Cardero, MA Karam</td>
</tr>
<tr>
<td>83</td>
<td>Challenges and Potentials of Contemplative Education in Latin America</td>
<td></td>
</tr>
<tr>
<td>84</td>
<td>Contemplative Practices in Higher Education: Integration and Adaptation</td>
<td></td>
</tr>
<tr>
<td>86</td>
<td>Growth and Awakening: Why Contemplative Practices Need Ego Development</td>
<td></td>
</tr>
<tr>
<td>87</td>
<td>The Evolution of Wellness</td>
<td></td>
</tr>
<tr>
<td>88</td>
<td>Sensing Mindfulness: Sensory Consciousness as a 21st-Century Literacy</td>
<td></td>
</tr>
<tr>
<td>89</td>
<td>The Philosophy and Practice of Empathic Reasoning</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>Secular Meditation: Organ Flow Qigong Meditation and Chakra Flow Meditation</td>
<td></td>
</tr>
<tr>
<td>91</td>
<td>Tong Ren Healing System: Accessing the Collective Unconscious to Heal Body-Mind-Spirit</td>
<td></td>
</tr>
<tr>
<td>92</td>
<td>Consciousness, Entanglement, and Compassionate Cooperation</td>
<td></td>
</tr>
<tr>
<td>93</td>
<td>Polymaths of the Future</td>
<td></td>
</tr>
<tr>
<td>94</td>
<td>Planetary Hospice</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>Mathematics of Enlightenment</td>
<td></td>
</tr>
<tr>
<td>96</td>
<td>The Theory of Time and Space</td>
<td></td>
</tr>
<tr>
<td>97</td>
<td>Hypnotherapy as Neurophenomenology Through Artistic Expression</td>
<td></td>
</tr>
<tr>
<td>98</td>
<td>Virtual Spaces as Mindfulness Practice</td>
<td></td>
</tr>
</tbody>
</table>
1. Emotion Regulation, Reappraisal, and Heart-Rate Variability

Jonathan Krygier, University of Sydney School of Psychology

Mindful regulation of emotions is central to many contemplative traditions, and has been linked to psychological well-being. Regulation deficits are associated with psychopathology and increased risk of cardiovascular disease. This study examined links between emotion regulation, emotion induction, and frequency measures of heart-rate variability (HRV). Participants included meditation-naïve versus those who had completed an intensive course of vipassana meditation. Participants viewed sets of positive and negative images, and were instructed to either «reappraise» images or to «simply view» images with no regulation of emotional experience. During reappraisal, subjective ratings of valence and arousal were less extreme, indicating successful regulation. Findings suggest that not only is HRV related to individual differences in emotion regulation, but also that emotional regulation can modify phasic cardiac responses over time.

Authors: JR Krygier, JA Heathers, JJ Gross, MJ Abbott, AH Kemp

Theme: Basic Science, Clinical Science

2. Bhastrika Pranayama Training Decreases P300 Latency and Increases its Amplitude on Physically Fit Soldiers

Danilo Santaella, Brain Institute (ICe-UFRN) and Sports Center (CEPEUSP)

To investigate the effects of hatha yoga bhastrika pranayama training on auditory event-related potential of physically fit soldiers. Thirty male volunteers were randomized into bhastrika and control groups. Auditory oddball was collected at baseline and after one month of 30 minutes everyday bhastrika or waiting period. Oddball even/odd ratio was 80/20 percent. A sixty-four EEG active electrodes system was used. Impedence was kept below 5kΩ at all sites, and artifacts were filtered offline with independent component analysis. Significance was set at p<0.05 (student t-test). At study entry, P300 was similar among all electrodes for peak-amplitude and peak-latency. One month of training led to a significantly smaller peak-latency and greater peak-amplitude in the bhastrika group, mainly at temporal and parietal regions. In conclusion, one month of bhastrika training changes P300 latency and amplitude in physically fit soldiers, with faster response to auditory stimuli and increased neural engagement.

Authors: DF Santaella, AM Ribeiro, RH Silva, KC Andrade, DB Araujo

Theme: Basic Science

3. Expanding Awareness: Paying Attention to a Functional Magnetic Resonance Imaging Study from South Africa

Karen Fitzgerald, University of Cape Town

Contemplative practices and functional brain imaging is novel in Africa, and growth of both inquiries may relieve much of the intolerance on the continent. Results of a functional MRI study, aimed at evaluating attention-task performance and well-being in novice participants compared to waitlisted controls before and after an eight-week mindfulness program, are considered. Differences on subscales of the Brunel Mood Scale, the Ryff Psychological Well-being Scale, and the Mindful Attention Awareness Scale between the groups are examined. Differences in scores on the Attention Network Task, as well as changes in brain activity during this task, are investigated. Future directions relevant for Africa are suggested.

Authors: K Fitzgerald, P Luck, BJM Steyn, EM Meintjes

Theme: Basic Science

4. The Impact of Mindfulness on Cognition-Emotion Interactions

Aminda O’Hare, University of Massachusetts, Dartmouth

Neuroimaging research on the effects of mindfulness meditation has evidenced structural changes in the brain following short (eight-week) and long (10-year) experiences with mindfulness meditation practice. These structural changes suggest that mindfulness meditation impacts both emotional and cognitive processing; however,
the specific mechanisms that are affected by these changes are not well understood. This project seeks to extend this literature by using behavioral and neural measures of cognitive and emotional processing in conjunction with mindfulness meditation. Students across multiple graduate seminars completed an emotional word flanker task and measures of personality while electroencephalographic data was recorded both before and after completing an eight-week mindfulness meditation training. Differences in cognitive control while in the presence of emotional distraction were found when comparing task performance from before versus after the training. These data support the application of mindfulness practices in both educational and clinical environments.

**Authors:** AJ O’Hare, MP Hall, EG Ames, RH Harenberg

**Theme:** Basic Science

5. Reduced Response to Stressful Events during Chanting Amitofo: A Combined fMRI and EEG study

Junling Gao, Centre of Buddhists Studies, The University of Hong Kong

Chanting Amitofo is one of the most popular Buddhism practices in Eastern Asia. This study aimed to investigate whether this practice can actually reduce the impact of stressful events in daily life.

Methods: Fifteen participants with at least three years of chanting Amitofo practice were recruited in this study. Demographic and relevant questionnaires were used to measure their stress level and belief in Amitofo. The participant was asked to chant Amitofo, and then was shown stressful pictures and neutral pictures, both from IAPS during a functional magnetic resonance imaging (fMRI) scan. All participants did the same stress-paradigm using electroencephalogram (EEG) experiment. The results showed that chanting Amitofo additionally activated the prefrontal lobe and cerebellum as compared to chanting “Santa Claus.” This prefrontal activation level was related to the reduced neural response of the amygdala, anterior insula. Event-related potential study showed that chanting Amitofo might affect the late processing of the stressful picture.

**Authors:** JL Gao, HH Sik, JC Fan, B Wu, PCW Fung, Albert So, CQ Chang, ZG Zhang, YS Hung

**Theme:** Basic Science

6. A Revolutionary Healing Method of Mindfulness: Bridging the Body and Mind Through Body-Based High Level of Perception (BBHP) Training

Siddhi (SoonKeum) Kim, Wonkwang University

The current trend in humanities is to favor the mind over the body. However, such a position fails to deeply consider the many facets of the human body. The BBHP (Body-Based High Level of Perception) program started in South Korea in 2007 studies how the development of a high level of perception leads to decreasing cases of depression and anxiety. BBHP

**Theme:** Basic Science
training begins by strengthening the energy at lumbar vertebrae three and four, leading to the cultivation of the right brain. Most interventions focus on healing methods that use the mind as the starting point, but this training starts by strengthening the body. Participants of the study showed a decrease in depression and anger, and instead perceived their surroundings objectively, showing a significant shift in consciousness. These findings highlight the importance of a body-focused training and suggest that BBHP training may represent a unique behavioral intervention for enhancing mindfulness.

Authors: S Kim
Theme: Other, Philosophy/Humanities

8. Mindfulness May Reduce Cognitive and Attitudinal Emphases on Negativity
Laura Kiken, University of North Carolina, Chapel Hill
Expecting more “bad” than “good”; guilt by association; thinking in ways that perpetuate negative mood: All of these are examples in which the tendency to emphasize negativity can have undesirable consequences. Our research tested whether mindfulness helps to attenuate these potentially detrimental tendencies to emphasize negativity. Mindfulness involves attending to thoughts and feelings non-judgmentally as they pass by, rather than automatically entertaining or emphasizing certain thoughts and feelings, which may reduce these negativity biases. We present evidence from five studies that examined either trait mindfulness (cross-sectionally) or brief mindfulness meditation in the lab (experimentally), primarily employing basic social psychological methods. Three studies assessed cognitive emphasis on negativity (i.e., rumination, negatively biased beliefs and expectations, and thought responses to affective images), and two studies assessed the formation of positive and negative attitudes toward unfamiliar stimuli. Across all studies, the findings suggest that mindfulness is associated with less emphasis on negativity.

Authors: LG Kiken, NJ Shook
Theme: Basic Science

9. “Mind the Trap”: Mindfulness Practice Reduces Cognitive Rigidity
Jonathan Greenberg, University of Miami
Two experiments examined the relationship between mindfulness practice and cognitive rigidity by using a variation of the Einstellung water jar task. Participants were required to use three hypothetical jars to obtain a specific amount of water. Initial problems were solvable by the same complex formula, but in later problems (“critical” or “trap” problems) solving was possible by an additional, much simpler formula. A rigidity score was compiled through perseverance of the complex formula. In Experiment 1, experienced mindfulness meditators received significantly lower rigidity scores than non-meditators who had registered for their first meditation retreat. Similar results were obtained in randomized controlled Experiment 2 comparing non-meditators who underwent an eight-week mindfulness program with a waiting list group. Results indicate that mindfulness practice reduces cognitive rigidity, and improves the ability to identify and utilize novel ways of thinking and responding.

Authors: J Greenberg, K Reiner, N Meiran
Theme: Basic Science

10. Comparing Physiological, Psychological, and Social Outcomes Across Meditative Practices
Vanessa Kettering, Claremont Graduate University
This presentation describes findings from two studies testing the outcomes of various forms of meditation in both laboratory (study 1) and field (study 2) settings. Study 1 randomly assigned novice meditators to four weeks of either Lovingkindness Meditation (LKM) or Mindfulness of Breathing Meditation (MB) in two forms, either Anapanasati Meditation or Focused Attention Meditation (FAM). Both types of practice (LKM or one of the two MB) increased generosity in an economic decision-making task, and more than 50 percent of participants reported continuation of practice two years later. Study 2 randomly assigned participants to either a guided imagery meditation or «eyes closed silence» as an active control, and found that both led to a reduction in adrenocorticotropic hormone (ACTH), with a larger reduction when more people meditated together. Taken together, these studies elucidate the importance of contrasting contributions of meditative practices within the same study, and highlight biological and behavioral outcomes of these three forms of meditation.

Authors: VL Kettering, G Zahedzadeh, JA Barraza, ML Spezio, PJ Zak
Theme: Basic Science

11. Contemplative Practice Correlates of Mindfulness, and Mystical and Kundalini Experiences
John de Castro, Sam Houston State University
A variety of contemplative practices have been employed for thousands of years in the pursuit of spiritual experiences. The modern mindfulness movement, however, has directed these practices primarily toward the secular goals of improved physical and psychological health and well-being. The details of the daily practice were self-reported by practitioners of meditation, yoga, contemplative prayer, mindfulness-based stress reduction, and mindful movements, and were used as predictors of participant responses on the Five Facets of Mindfulness, Mysticism, and Kundalini Awakening scales. Meditation practice was most predictive of mindfulness and both introverted and extroverted mystical experiences, while both meditation and yoga practices were predictive of kundalini awakening experiences. Years of practice were predictive of mindfulness and mystical experiences while average session duration was predictive of kundalini awakening experiences. These results suggest that in general, the number of years of practice of meditation is most highly related to mindfulness and mystical experiences.

Authors: JM De Castro
Theme: Basic Science
12. Mindfulness and the Nociceptive Processing of Painful Stimuli
Burel Goodin, University of Alabama, Birmingham
Ethan Gossett, University of Alabama, Birmingham
Research has shown that individuals who possess high levels of mindfulness are better able to tolerate pain compared to those who possess low levels. Further, mindfulness-training interventions have been found to benefit individuals who suffer with chronic pain. Although a number of psychological and behavioral mechanisms have been reported to underlie the positive impact of mindfulness on pain, it remains to be determined whether mindfulness might influence the experience of pain by altering the nociceptive processing of painful stimuli. To address this possibility, our ongoing laboratory-based study of younger and older adults is assessing individuals’ self-reported mindfulness prior to completion of a psychophysical pain testing battery. This battery includes procedures for examining endogenous-pain inhibitory and facilitatory processes. If mindfulness is found to be associated with enhanced pain inhibition and diminished pain facilitation, it would support the hypothesis that mindfulness is related to the nociceptive processing of painful stimuli.
Authors: EW Gossett, K Wesson-Sides, SC Terry, K Bennett, HW Bulls, BR Goodin
Theme: Basic Science

13. Mindfulness Disposition, Emotion Regulation Ability, and Strategy Use in Older and Young Adults
Brittney Schirda, The Ohio State University
Mindfulness disposition has been found to be associated with enhanced psychological functioning. One proposed mechanism is through improved emotion regulation, which may be moderated by age, given the differences in emotion-regulation ability and strategy use in older and young adults. We examined the relation between self-reported dispositional mindfulness, emotion-regulation difficulty, and strategy use across various contexts over a two-week period in older and young adults. We found older adults to be more mindful, to use fewer putatively maladaptive strategies, and to have fewer emotion regulation difficulties. In both groups, mindfulness was negatively associated with the use of maladaptive strategies and emotion-regulation difficulty. In young adults only, difficulties in emotion regulation fully mediated the relationship between mindfulness disposition and maladaptive strategy use. These results provide further support for the relationship between mindfulness and improved emotional-regulation health in both older and young adults.
Authors: B Schirda, A Aldao, RS Prakash
Theme: Basic Science

14. Higher Levels of Trait Mindfulness Are Associated with Enhanced Proactive Control Abilities in Older Adults
Stephanie Fountain-Zaragoza, The Ohio State University
The current operationalization of mindfulness defines it as both a trait metric, with individual differences being associated with facets of emotional and cognitive control, and as a skill set acquired in the context of an intervention. Although cognitive control abilities decline with age, higher dispositional mindfulness might be associated with enhanced cognitive control, the current topic of investigation. Modified stroop data was collected from 46 older adults and 45 younger adults. Analyses revealed that older adults exhibited higher dispositional mindfulness than young adults. Older adults showed a greater speed-accuracy trade-off than young adults on all congruent trials. However, negative associations between mindfulness and speed-accuracy trade-off on congruent trials in older adults indicated that more mindful older adults exhibited smaller trade-offs. Mindfulness disposition may therefore be accompanied by enhanced proactive control, the ability to maintain task-related goals. Additionally, analysis of neuroimaging data will explore neurocognitive mechanisms underlying this association in the aging brain.
Authors: S Fountain-Zaragoza, R Prakash
Theme: Basic Science

15. Mindfulness and Critical Thinking: Investigating Theoretical Links and the Role of Executive Functioning
Chris Noone, NUI Galway
Critical thinking (CT) involves successful analysis and evaluation of evidence and arguments as well as the inference of reasonable conclusions. It has been suggested that mindfulness can facilitate higher-order thinking skills such as CT. This has led to calls to include reflective practices in higher education. According to default interventionist dual-processing theories, such non-automatic, reflective responses require executive functioning. One proposed way of enhancing EF is through mindfulness practice. This study investigates whether mindfulness facilitates CT and whether this relationship is mediated by EF. Structural Equation Modeling showed relations between (i) latent mindfulness and CT performance; (ii) each EF process (Updating, Shifting, and Inhibition) and CT performance; (iii) the Observing and Acting with Awareness facets and Updating; (iv) the Observing and Acting with Awareness facets and Shifting; and (v) Non-reacting and Non-judging and Inhibition.
Authors: C Noone, MJ Hogan
Theme: Basic Science

16. The Effect of Mindfulness on Error Processing Using a Dispositional and an Experimental Approach
Kristina Eichel, University of Cologne, Germany
Mindful individuals should be able to detect errors more easily. To test this hypothesis, participants had to respond to a Simon task according to different rules, and then had to decide if their given response was correct or incorrect (error awareness). Error negativity as event-related potential was recorded. The relationship between mindfulness and neural correlates of error monitoring during an error-awareness task was analyzed. The effects of mindfulness were investigated by a smartphone-based mindfulness training (versus progressive muscle relaxation training as active control group). In addition to mindfulness and personality traits, a questionnaire on stress symptoms was
assessed. Controlling for emotional stability, participants with higher mindfulness showed larger error negativity differences between detected and nondetected errors. Furthermore, mindfulness training leads to better performance in processing speed and reduction of stress symptoms. Thus, mindfulness showed positive effects on different aspects of action control and well-being.

Authors: K Eichel, J Stahl
Theme: Basic Science

17. Mindfulness-Based Stress Reduction (MBSR) and the Moderating Effects of Distress Tolerance

Michael Baime, Penn Program for Mindfulness, University of Pennsylvania
Michael Gawrysiak, University of Pennsylvania and Philadelphia VAMC
Stevie Grassetti, Clinical Psychology, University of Delaware
Shirley Leong, Philadelphia VA Medical Center

Mindfulness-Based Stress Reduction (MBSR) helps individuals cope with stress through learning meditative practices that foster present-centered, nonjudgmental attention toward one’s experiences. The effectiveness of MBSR is well supported through its application with individuals facing various psychological and physiological stressors. One mechanism by which MBSR may exert its effects on stress reduction is by increasing individuals’ distress tolerance. This study examined the relationship between distress tolerance and psychological outcomes among 372 individuals who completed MBSR, with the objective of analyzing whether individuals with lower distress tolerance showed greater reductions in perceived stress following MBSR.

Self-reported perceived stress, distress tolerance, and mood states showed favorable changes from pre- to post-MBSR. Findings also revealed that distress tolerance significantly moderated reductions on perceived stress, suggesting that individuals with lower distress tolerance have a greater response to MBSR. Future studies can extend these findings to test the putative causal relations among distress tolerance and mindfulness training.

Authors: MJ Gawrysiak, SN Grassetti, S Leong, MJ Baime
Theme: Basic Science

19. Effects of Age, Emotional Flexibility, and Cognitive Abilities on the Effectiveness of Regulating Sadness Using the Acceptance Strategy

Monika Lohani, Brandeis University

Little is known about the factors that can explain effective use of acceptance in managing sadness. This study investigated how age, emotional flexibility, and cognitive abilities play a role in successful implementation of the acceptance strategy. Younger and older individuals were shown sadness-eliciting videos with instructions to accept their emotional responses. Change in negative emotional experience was assessed by calculating the difference in self-reported sadness before and after implementing acceptance. Emotional flexibility was assessed by using a standard emotion regulation task that measured ability to increase and decrease emotions upon instruction. General cognitive abilities were measured via a cognitive battery. We found that for younger adults, higher emotional flexibility was a significant predictor of less negative emotional experience. For older adults, higher cognitive abilities were associated with less negative emotional level. Younger and older participants may depend upon different abilities to successfully implement the acceptance strategy.

Authors: M Lohani, DM Isaacowitz
Theme: Basic Science

20. Long-Term Psychological Effects of Intensive Meditation Retreats for Teenage Youth

Brian Galla, University of Pennsylvania
Jessica Morey, Inward Bound Mindfulness Education (iBme)

The current study examined the long-term psychological effects of intensive meditation retreat practice among teenage youth. The sample consisted of 132 teens, who each participated in a five-day meditation retreat offered during the summer of 2013. Immediately before, after, and three months following the retreat, teens completed a battery of questionnaires assessing mindfulness, mental health, emotion regulation, and subjective well-being. Before the retreat, teens also answered questions about their intentions and plans to practice meditation after the retreat; they also provided information about their meditation practice during the three-month follow-up assessment. After the retreat, teens showed significant improvement across all four domains of psychological well-being, and these effects were maintained at three-month follow-up. Second, intentions and plans to meditate measured before the retreat predicted meditation practice three months later. Finally, meditation practice at three-month follow-up predicted improved psychological well-being above and beyond baseline functioning.

Authors: A Cebolla, J Garcia-Campayo, M Demarzo, J Soler
Theme: Basic Science

21. Side Effects of Meditation: A Survey Among Spanish Meditators

Marcelo Demarzo, Federal University of Sao Paulo, UNIFESP
Javier Garcia-Campayo, University of Zaragoza
Joaquim Soler, Hospital de la Santa Creu i Sant Pau

Side or negative effects of meditative practice have been reported both in Eastern traditional and research literature, but very little is known about their prevalence or typology among short- and long-term meditators. Our objective was to conduct an online survey on side effects of meditation among Spanish meditators. Out of the 206 respondents who completed the survey (ranging from five months to 25 years of meditative experience), 47 (22.8 percent) reported at least one negative side effect in their lifelong meditative practice, such as increased fear, anxiety, depressive symptoms, or self-criticism. Most of them were transitory and appeared during individual practice (in opposition to group or retreat practices). How the data should be interpreted, implications for the clinical use of meditation, limitations of the study, and suggestions for future research are discussed.

Authors: A Cebolla, J Garcia-Campayo, M Demarzo, J Soler
Theme: Basic Science
24. Evidence of Validity of the Brazilian Version of the Five Facet Mindfulness Questionnaire (FFMQ)

Viviam Barros, Universidade Federal de São Paulo

There is a need to better understand what mindfulness-based interventions work and whom they serve. This will be possible through the development of valid and reliable instruments that measure mindfulness and its components. To evaluate the psychometric properties of the Brazilian version of the Five Facet Mindfulness Questionnaire (FFMQ), 395 participants divided into smokers, people from general population, college students, and meditators answered the FFMQ and the Psychological Well-Being Scale. An exploratory factor analysis was conducted and the reliability was assessed. The FFMQ-BR was composed by seven factors, and all of them showed good internal consistency. Construct and criterion validity were respectively confirmed through significant correlation between the FFMQ-BR scores and well-being, and a significant difference between meditators and the other participants' scores on the FFMQ-BR. This study may help in providing subsidies to the progress of research by examining the empirical relationships between mindfulness and mental health.

Authors: WV Barros, EH Kozasa, ICW Souza, TM Ronzani

Theme: Basic Science

25. A Qualitative Study of the Experiential Micro Processes of Insight Meditation Using Novel Phenomenological Interview Methods

Willeke Rietdijk, University of Southampton

This poster presents the progress of a qualitative PhD study into the experiential micro processes taking place in mindfulness (vipashyana). An overview is presented of several types of mindfulness processes and mechanisms that have been described in recent research literature, and how these compare to one another categorically. Furthermore, the poster presents insights from the fields of cognitive and humanistic psychology, as well as phenomenology and neurophenomenology, which together have inspired the development of novel first- and second-person interviewing techniques for the micro study of human experience. The methodology, which proposes the use of the Elicitation Interview to uncover micro gestures of processes taking place in mindfulness, will be outlined. No findings can yet be presented.

Authors: W Rietdijk, SJ Parsons, J Byrne

Theme: Basic Science


Susan Skjei, Authentic Leadership Program, Naropa University

This phenomenological study explored leaders’ lived experience of authentic leadership moments in the complex, unfolding reality of the workplace. In these moments, leaders are confronted with a challenge or an opportunity that at first may seem disorienting or beyond the leader’s current capacity, and yet they are able to engage with people or events with an increased level of authenticity and courage rather than defensiveness. The methodology, called mindful inquiry, combined phenomenology, hermeneutics, Buddhism, and critical theory into an integrated research approach. The analysis of 10 in-depth interviews yielded five invariant characteristics of an authentic leadership moment, which will be described in detail in the session. An additional finding from the study was the key role of contemplative practice in increasing a leaders’ ability to recognize and sustain authentic leadership moments.

Authors: S Skjei

Theme: Basic Science, Other

27. Self-Identity Construction and Contemplative Practice: A Qualitative Analysis of First Person Narrative Accounts

Asun Puche, FPCEE Blanquerna, Ramon Llull University

The purpose of this research project is to further clarify the role of contemplative practices in the dynamics of selfhood processes and self-narrative identity construction. Specifically, we examine: (1) how and to what extent contemplative practices are embedded in one’s sense of self and personal identity, both in intrapersonal and relational terms; and (2) how and to what extent these practices bring forth a transformative effect on self and identity. First-person narrative accounts from participants in Christian contemplative retreats have been analyzed through a dialectical process based on in-depth qualitative methods. This replicable methodology is innovative in the field of psychology and spirituality, and it enlarges the research possibilities of a contemplative science.

Authors: A Puche, L Botella

Theme: Basic Science, Practice

John Edwards, Oregon State University

Many religious traditions suggest that people’s actions determine their impressions of their own future outcomes, a phenomenon commonly termed “karma.” The mind-only school of Buddhist thought postulates mechanisms through which karmic effects might operate. These mechanisms share much in common with Western psychological research on construct activation. A literature review suggests that, first, people who engage in ethically relevant behavior do experience concordant outcomes. Second, recent research shows that people’s own behavior activates relevant cognitive constructs, which, in turn, influence in specific ways how other people and social situations are perceived (in accord with the mind-only explanation for karmic effects). These findings supply empirical evidence in support of a key Buddhist belief. These same mechanisms can also explain the ability of certain meditative techniques to lead to more positive life outcomes.

Authors: J Edwards, W McCullough, P Allen
Theme: Basic Science, Philosophy/Humanities

29. Feedback Mechanisms at the Heart of Science and Contemplative Traditions

Wolfgang Lukas, CERN/University of Innsbruck

Feedback mechanisms involving human sensory perception are subject to a wide range of biases, fallacies, memes, and belief systems, which push complete scientific objectivity beyond reach. A new stance that accounts for the first-person perspective should be adopted to uncover hidden assumptions and reduce observer biases. Neurophenomenology provides a template to bridge the gap between first- and third-person perspectives. Second-Order Cybernetics offers a conceptual framework for its application to feedback-loop systems. Ancient contemplative traditions like Buddhism describe feedback mechanisms such as “dependent co-arising” (paticca samuppada), and propose mindfulness practice to overcome ignorance. Dedicated training methods for “consciousness of abstracting” as described by general semantics, lead to similar results. These can be further investigated in terms of their interaction with neurophysiological feedback cycles such as the Default-Mode Network and Task-Positive Network. The combined approach of science and training methods from contemplative traditions can benefit scientific research (particularly consciousness studies), as well as personal experience. When one path corrects the course of the other, distorting influences can be elucidated and reduced for the sake of our own systematic disillusionment.

Authors: W Lukas
Theme: Basic Science, Practice

30. The Systematic Innovation and Application of Brain-Based Meditation

Peter Grossenbacher, Naropa University

The act of providing meditation instruction is not well understood, and the development of novel meditation techniques has yet to be systematically investigated. The prospect of innovating effective and efficient techniques for contemplative practice and instruction holds great practical value for realizing the aims of contemplative practice. Therefore, meditations were created on the basis of published findings regarding brain activity during meditation. New brain-based meditation instructions were designed to differentially target patterns of synchronous activity, either globally or in anatomically distributed functional subsystems, including the default mode, salience, and attention networks. These new techniques aim to efficiently elicit identified patterns of brain function in order to support effective meditation, and were practiced by study participants. In order to bring together first-person and third-person ways of knowing, this presentation invites attendees to experience some of these novel practices firsthand, before learning about the subjective experience reported by participants.

Authors: PG Grossenbacher
Theme: Basic Science, Practice
31. Open Sharing Culture in Basic Research of the Life Sciences  
Andrea Scheer, BSRT Charite, Berlin  
There is a growing interest in the integration of sharing into basic research of the life sciences. The paper presented reviews empirical evidence related to the use of design reviews and debrief sessions to facilitate deeper collaboration of interdisciplinary research teams, to help support interdisciplinary communication under disciplinary pressure, and to enhance creative confidence in scientists. Drawing on research conducted using interaction analysis of reviews and debriefs of a research team at a Berlin life sciences institute, I want to demonstrate how these practices may help to foster important cognitive skills of collaborative information processing and knowledge creation from different disciplines (biology, engineering, medicine), as well as build empathy for team members and appreciation of disciplinary and human diversity in basic research. The presentation will also offer directions for future research on practices to enhance creative confidence in science, and increased methodological rigor for feedback and review contexts.  
Authors: A Scheer, J Schön  
Theme: Basic Science, Other

32. Neuroanthropology of Music  
Nicolás Araneda Hinrichs, Universidad de Concepción  
Neuroanthropology focuses on the interplay of the central nervous system and the environment, i.e., any given biocultural niche, in order to understand some behavioral phenomena specific to Homo sapiens. A specific focus here is developmental neuroplasticity and its relation to musical experience. Music may well be one of the most fundamental aspects of human mind and evolution; even experienced in the most passive way, it involves the entire body. Recent findings point towards a sociological dilemma regarding music production and consumption (recently presented at a summer school held by the Max Planck Institute for Human Development, “Misanthropology: Evidence of Heteronomy in Western Musical Experience” accounts for this). These findings could help demonstrate that both contemplation and “musical communion” are transcultural phenomena with common neural correlates.  
Authors: N Araneda Hinrichs  
Theme: Basic Science, Other

33. Remembering the Legacy of Dr. Jacobo Grinberg-Zylberbaum’s Laboratory in Mexico City, 20 Years Later  
Leah Attie, Danzas Circulares  
Mónica Romano, Universidad Latinoamericana  
Amira Valle, Elephant Wise, LLC, a Journey to a Mindful Life  
Dr. Jacobo Grinberg-Zylberbaum was the pioneer of contemplative science research in Mexico. After working at Dr. Roy John’s laboratory in New York, he opened the Psychobiology and Human Communication Laboratory at Universidad Nacional Autonoma de Mexico. He proposed the Synthentic Theory, an explanation of the creation of experience in the human brain. Among the revolutionary experiments designed to support his theory, the most important was the “Transferred Potential” showing nonlocal brain-to-brain interaction. At his laboratory, brain activity of Mexican Shamans was studied for the first time. Dr. Grinberg-Zylberbaum disappeared in December of 1994; his laboratory was closed. His legacy includes more than 50 books and 150 articles. Leah-Bella Attie, Amira Valle, and Monica Romano worked at his laboratory and collaborated on his experiments. Twenty years after his disappearance, we would like to share his legacy and remember one of the most brilliant minds in Mexican neuroscience.  
Authors: L.B. Attie, A Valle, M Romano  
Theme: Basic Science, Other

36. Contemplative Practices for Persons with Early-Stage Dementia and their Family Care Partners: Fostering Well-Being and Connectedness  
Susan Bauer-Wu, University of Virginia  
Dallas Ducar, University of Virginia  
Shiuh Liang, University of Virginia  
Public awareness (and acceptance) of dementia diseases and diagnostic tools have both increased. As a result, the diseases are now being recognized and diagnosed much earlier in their course. Interventions designed specifically for those with early-stage dementia and their loved ones are needed. Our intention in conducting this mixed-methods pilot study was to explore ways to improve well-being and health in persons with mild dementia and their care partners, and to enhance their sense of connectedness through training in contemplative practices. Six spousal dyads participated in this four-week trial exploring three types of practices: mindfulness meditation (awareness of breathing and mini body scan), lovingkindness meditation, and lojong compassion meditation. Focus group interviews, self-report questionnaires (mood, functioning, stress, meaning, and mutuality), and neurobehavioral (working memory) testing were completed by both participants with dementia and spousal care partners, not patients, benefited from the practices, especially mindfulness and lovingkindness meditations.  
Authors: S Bauer-Wu, K Hepburn, A Jha, J Lau, S Negi, B Patterson, R Whitworth, D Ducar, S Liang  
Theme: Clinical Science

37. Mindfulness Meditation Lowers Blood Pressure and Sympathetic Activity in Hypertensive Patients with Chronic Kidney Disease  
Susan Bauer-Wu, University of Virginia  
Chronic kidney disease (CKD) is characterized by chronic sympathetic nervous system (SNS) overactivation that contributes to hypertension and mortality. We hypothesized that mindfulness-based meditation (MM) lowers blood pressure (BP) in hypertensive CKD patients by lowering central SNS output. We measured continuous arterial BP and muscle sympathetic nerve activity (MSNA) in hypertensive patients with Stage III CKD at baseline and during 14 minutes of either: (1) MM; or (2) health education (control). Groups were similar at baseline, however, during the last four minutes of intervention, the MM group compared to controls had a significantly greater reduction in systolic BP, diastolic BP, mean arterial pressure, and a trend towards greater re-
39. Scaling Up: Making Mindfulness Approachable Without Diluting the Practice

Samara Serotkin, Focus and Thrive, PLLC

The media is painting mindfulness practice as the panacea for much of what is ailing our society today. It can make us happier, more productive, more focused, and more involved. Why, then, aren’t more people doing it? Mindfulness practice, as it has traditionally been taught, requires a great deal of time and effort. While tremendous benefit can be gained through this kind of dedication, it becomes prohibitive to many people who could otherwise benefit from the practice. In a society that values speed, ease, and extremes, how can mindfulness practice be made accessible to more people while still maintaining the fidelity of the practice? Some researchers have explored the effectiveness of “bite-sized” mindfulness practices and mindfulness instruction provided via the internet or over the phone. What can be learned from these efforts, and what can we do, as teachers, to help make mindfulness practice more accessible to the general population?

Authors: S Serotkin
Theme: Practice

40. Meditation for Adults with Neurological Conditions

Rebecca Wells, Neurology, Wake Forest School of Medicine

While stress may be associated with cognitive impairment and migraines, few studies have evaluated the impact of a standardized meditation intervention in these populations. We conducted two randomized controlled trials of mindfulness-based stress reduction versus usual care in 14 adults with mild cognitive impairment and 19 migraineurs. Functional magnetic resonance imaging was used to assess default-mode network connectivity and hippocampal atrophy (study 1), and migraine frequency, severity, and duration were also assessed (study 2). Adults with mild cognitive impairment who learned to meditate had increased functional connectivity between areas of the default-mode network and trends of less bilateral hippocampal atrophy. Migraineurs who learned to meditate had fewer, less frequent, and less severe migraines. Meditation may positively impact the connectivity between brain regions most related to mild cognitive impairment and Alzheimer’s disease, and may decrease the frequency, severity, and duration of migraines.

Authors: GY Yeh, CE Kerr, J Wolkin, RB Davis, Y Tan, R Burch, R Paulsen, R Spaeth, R Wall, J Walsh, TJ Kaptchuk, P Wayne, DZ Press, TT Houle, J Kong, E Loder, RS Phillips
Theme: Clinical Science

42. Pilot Randomized Controlled Trial of MBSR Versus Progressive Muscle Relaxation to Reduce Symptoms of Distress Among Elderly Dementia Caregivers: One Year Post-Intervention Result

Roisin O’Donnell, The University of Arizona

Providing care for a frail older adult has been described as a stressful experience that may erode the psychological well-being and physical health of caregivers. When the caregivers are themselves elderly and the care recipient suffers from a neurocognitive disorder such as dementia, the burden and resulting stress is increased. This randomized controlled pilot study aimed to ascertain whether MBSR is a uniquely effective intervention for older family caregivers of persons with dementia and other neurocognitive disorders. MBSR was compared to a similarly structured, body-focused, active intervention based on progressive muscle relaxation (PMR). Twenty-eight participants began training and 24 completed five assessments — pre- and post-intervention and follow-ups — at eight weeks, six months, and one year. Assessments included self-report measures of health (SF-36v2), loneliness, sleep, depression and burden, and measures of salivary cortisol and blood pressure taken at rest and during a laboratory-controlled emotional stress test. Preliminary results suggest that MBSR is advantageous for elderly family caregivers.

Authors: R O’Donnell, A Kaszniak, S Ziebell, M Menchola
Theme: Clinical Science
again with new episodes. This talk will present findings from a recent multicenter trial that investigated preventative effects of MBCT on suicidal depression. Two hundred and forty-seven patients with a history of three or more previous episodes of depression and past suicidality were randomly allocated in a ratio of 2.2:1 to receive MBCT, an active control treatment, or treatment as usual. Participants were followed up over a period of one year after the end of the intervention phase. We will describe the adaptations made to the standard MBCT protocol to specifically address the mechanisms involved in escalation of suicidality, present the main outcomes of the trial, and provide an overview of findings relating to mechanisms of action and the role of meditation practice.

Authors: T Barnhofer, C Crane, M Fen-
nell, R Crane, S Silverton, I Russell, JMG Williams
Theme: Clinical Science

44. The Mind in Labor: Employing Mindfulness to Alleviate Fear and Pain of Childbirth

Larissa Duncan, UCSF Osher Center for Integrative Medicine
Fear of childbirth predicts lower pain toler-
ance and greater pain medication use in labor. Fear and pain in labor may increase the likelihood of unwanted obstetric inter-
ventions and lead to lower birth satisfac-
tion. In a small, randomized controlled trial, we tested the impact of the Mind in Labor, a brief, third-trimester childbirth education course that teaches mindfulness skills for coping with childbirth pain. We used an active comparison condition of high-quality childbirth education that had no mind/ body focus. After receiving the interven-
tion, participants reported increased child-
birth self-efficacy and a trend towards lower pain catastrophizing compared to controls. Epidural anesthesia rates were comparable across conditions, but fewer intervention condition participants used systemic opioid analgesia during labor. Intervention partic-
ips had significantly lower depression symptoms post-course than controls; the difference grew in magnitude postpartum. New data from longitudinal follow-up shows maintenance of the postpartum depression effect one to two years post-birth, suggesting important benefit of a brief prenatal mindfulness intervention.

Authors: LG Duncan, MA Cohn, JG Cook, FM Hecht, N Bardacke
Theme: Clinical Science

45. The Differential Impact of Three Contemplative Practices on Posttraumatic Stress Disorder Among Veterans

Dana Dharmakaya Colgan, Pacific University
Many of the published studies examining the use of mindfulness and related contemplative practices for posttrau-
matic stress disorder among veterans are cross-sectional, have small sample sizes and low statistical power, and use nonrandomized designs or no control group. Additionally, very few studies have dismantled the individual components of these interventions to assess the relative efficacy of each technique independently. In this session, we will present data from a randomized controlled trial examining the differential effectiveness of mindfulness meditation, slowed breathing, and mindfulness breathing in increasing state and trait mindfulness and decreasing depression and anxiety among 100 veterans diagnosed with posttraumatic stress dis-
order. Additionally, we will examine which mindfulness facets accounted for the most posttreatment outcome change among participants. Examining the separate components of a whole intervention may help clarify how the interventions work, and potentially allow for refinement of the therapy for more optimal outcomes.

Authors: D Colgan, H Wahbeh, M Christo-
pher, P Michael
Theme: Clinical Science

46. Examining Self-Compassion Versus Mindfulness-Based Interventions Towards Emotion Regulation in Binge Eaters

Avalon Borg, University of St Andrews, Scotland
The main objective of this research project is to investigate how self-compassion versus mindfulness can improve emotion-regulation skills in female binge eaters. Specifically, I aim to examine how self-compassion versus basic mindfulness as a construct can be cultivated and facilitated as a protector variable and an adaptive, self-generated, emotion-regulation strategy. Growing empirical evidence suggests that self-compassion is an important component in emotional regulation strategies. Literature amongst self-compassion and disordered eating is still underdeveloped and lacking in intervention-based evidence. Two groups of females were assigned to self-compassion medita-
tion or mindfulness-meditation training for a duration of eight weeks. We hypothesize that self-compassion will be a more robust emotion-regulation strategy than basic mindfulness, and yield evidence to suggest its potential for psychological intervention.

Authors: A Borg
Theme: Basic Science

47. The Relationship Between Mindfulness Practice and Sleep Quality and Therapeutic Consequences

Bruce Bough, Irish Medical Council and De-
partment of Mindfulness Studies, University of Aberdeen, Scotland
Sleep disorders and insomnia are common health problems associated with significant morbidity and increasing demands on health-care resources, for which the only current recognized treatments are cognitive behavioral therapy and hypnotic medica-
tion. Mindfulness is a form of nonjudgment-
al present-moment awareness that can be cultivated through the practice of mindfulness meditation. Mindfulness practice is known to train attentional, relational, and cognitive capacities and an attitude of ac-
cceptance. Sleep researchers have theorized that these are potential mechanisms by which mindfulness could influence sleep-relat-
ed, self-regulatory functioning. This paper reports: (1) original basic research undertaken into the interactions between mindfulness and sleep-related self-regula-
tory functioning; and, based on the results, (2) a clinical trial of the role of mindfulness meditation practice in the therapeutic man-
agement of sleep disorders and insomnia.

Authors: B Bough, D MacCarthy-Bough
Theme: Clinical Science
48. Mindfulness and Its Multidimensional Contributions to Workplace Resilience

Kell Julliard, Lutheran Medical Center
Christopher Lyddy, Case Western Reserve University

Resilience is the ability to feel and function as usual — or better — while facing adversity. As individuals constantly face adversity at work, this quality is pivotal for individual wellness and performance. Increasing evidence suggests that one effective way for individuals to bolster their resilience is being mindful, but the full spectrum of mindfulness’ impacts on resilience have not been fully theorized or documented. To induce a theory of how mindfulness influences workplace resilience, 25 employees of a health care institution who completed Tergar mindfulness training were interviewed. Topics included their professional roles, use of the mindfulness practices, and how the mindfulness training influenced how they felt and functioned at work. Participants reported that mindfulness enabled them to resiliently address many individual interpersonal and organizational adversities. Mindfulness yielded increased focus, emotional control, self-management, self-compassion, energy, patience, problem-solving orientation, interpersonal relationship quality, and transcendence of identity categories. Effects emerged with as little as one hour of training.

Authors: C Lyddy, K Julliard
Theme: Clinical Science, Other

49. It’s Not All About the Doctor: Barriers to Compassionate Care in Medicine

Antonio Fernando, Psychological Medicine, University of Auckland

Compassion is integral to medical practice. Physicians are expected to care but “burn out” and experience compassion fatigue. Research treats compassion fatigue as the consequence of depleted compassion reserves, and has yet to identify the specific intrapersonal, patient, environment, and system factors that might capacitate intervention. In Study 1, a 34-item Barriers to Physician Compassion measure was developed and evaluated among 372 physicians. In Study 2 (with 580 participants), differences in barriers across specialties were assessed. Component analysis revealed four barriers (burnout/fatigue, external distractions, difficult patients and families, and clinical uncertainty). ANOVAs revealed that medical specialties report different levels of the barriers. Barriers to physician compassion are not unidimensional, and reflect more than fatique. Some barriers are “about the doctor,” while others reflect patient, clinical, and environmental influences. To enhance compassion, interventions must also consider the systems in which caring occurs.

Authors: A Fernando, N Consedine
Theme: Clinical Science

50. Effects of Mindfulness Based Dementia Care on Caregiver Well-Being: A Quasi-Experimental Study

Marguerite Manteau-Rao, Presence Care Project
Kathy Sniffen, Center for Living Forward, Inc.
Shraddha Tibrewal, California State University, Stanislaus
K Lori Wong, Insight Meditation Central Valley

This presentation will focus on the results of a quasi-experimental study on an innovative mindfulness-based dementia care program for family and professional caregivers. This six-week program, unlike other standard trainings offered, has been specifically designed for dementia caregivers. The intervention group is composed of 25 family member and professional caregivers. The comparison group includes 25 waitlisted participants. We will share findings related to mindfulness, self-compassion, stress, and quality of life among the two groups, and statistically show the difference in these dependent variables between the two groups from baseline to program completion, followed by a three- and six-month follow-up. Past studies show promising results of the use of mindfulness with dementia caregivers; however, research on professionals providing care — as well as any longitudinal impact of such interventions — is limited. We will offer recommendations for implementing such trainings in the future, and on their rigorous evaluations.

Authors: C Lyddy, K Julliard
Theme: Clinical Science

51. Mindfulness as Resilience to the Impact of Adverse Childhood Experiences on Adult Health

Robert Whitaker, Temple University

Childhood exposure to abuse and household dysfunction is associated with worse adult health, whereas higher levels of mindfulness are associated with better health. However, these relationships have not been examined together in a population-based sample. Data from a survey of 2160 adults working in early childhood education were used to determine whether higher levels of mindfulness were associated with better adult health across a range of exposure to adverse childhood experiences. The survey assessed mindfulness with the Cognitive and Affective Mindfulness Scale-Revised and asked about exposure to eight categories of adverse childhood experiences and current health. Regardless of the number of adverse childhood experiences, adults with higher levels of mindfulness reported fewer health conditions, better health behavior, and better health-related quality of life. Interventions to increase mindfulness may mitigate the negative impact of childhood adversity on adult health. Such interventions could benefit early childhood educators and the children they serve.

Authors: RC Whitaker, T Dearth-Wesley, RA Gooze, BD Becker, KC Gallagher, BS McEwen
Theme: Clinical Science

52. A Mindfulness Group with Early Intervention Crisis Clients: Hard Lessons and Sparkling Moments

Javier Casado Perez, The Pennsylvania State University
Naorah Lockhart, The Pennsylvania State University

This presentation will cover the experience of planning, forming, and working through a mindfulness group with clients who are entering or experiencing crises. Presenters will discuss a participatory approach to group facilitation, and the challenges faced in a crisis setting. The presentation will explore experiential activities done within the group, the integration of mindfulness education with counseling practice,
the incredible impact of facilitator transparency and congruence, and disclosure about one’s own mindfulness practice.

Authors: JF Casado Perez, K Hayes
Theme: Practice

53. Using Mental Noting to Cope with Suicidal Thinking
Sean Barnes, VISN 19 Mental Illness Research, Education, and Clinical Center

Models of suicide suggest that the ability to recognize and disengage from suicidal thinking should prevent suicidal thoughts from escalating into suicidal behaviors. Mental noting is a meditation practice in which the practitioner silently labels perceptions as they arise. We assessed the impact of labeling personal suicidal thoughts by comparing a mental noting task to a reading task. We hypothesized that participants who engaged in mental noting would have a significantly smaller difference between their pre-task and post-task self-reported distress and physiological arousal relative to participants who did not engage in mental noting. Preliminary analyses of self-reported distress indicate that both groups responded similarly to the tasks and may have benefited from the objectification of their suicidal thoughts. Analysis of participants’ physiological arousal is underway and will be reported. Discussion will focus on the implications of these findings, and next steps in examining the potential clinical utility of mental noting.

Authors: S Barnes, N Bahraini, J Forster, T Hernandez, L Brenner
Theme: Clinical Science

54. The Languaging of Mindfulness Based Stress Reduction’s (MBSR) Body Scan: Cultivating Self-as-Process
Michelle Mamberg, Bridgewater State University

Mindfulness Based Stress Reduction (MBSR) teaches attention-focusing practices, fostering present-moment, nonjudgmental awareness. A core component of this program is the body scan. MBSR teachers are trained to use language carefully, yet discursive aspects of this teaching have not been researched. All mindfulness instructions convey an implicit formulation of the practitioner’s self; we advocate detailed examination of the language employed in mindfulness practices. Applying a discourse analytic perspective to the body scan instructions, we demonstrate how language cultivates an awareness of self-as-process, counteracting the typical construction of self as a fixed entity. Kabat-Zinn’s recorded body scan was transcribed, then systematically analyzed, addressing the question “How is the listener’s self portrayed in the instructor’s discourse?” Analyses highlight unique “languaging” patterns; word choice and grammatical patterns deconstruct a static, reified self, drawing attention to the fluid nature of the experiential process. The body scan encourages de-identification with the body, in favor of this self-as-process.

Authors: MH Mamberg, SJ Dreeben, P Salmon
Theme: Clinical Science

55. Mindfulness in Two Cultural Contexts: Hawaii and Vietnam
Thao Le, University of Hawaii at Manoa

This presentation is a feasibility study of a mindfulness-based youth intervention program that was delivered in two different cultural contexts. In Vietnam, the concept of mindfulness has deep roots, with more than 60 percent of the population practicing some form of Buddhism. Many cultural stories, metaphors, and aphorism reflect Buddhist ethics, the nature of suffering, and the overcoming of suffering. The first half of the presentation discusses the results of the program with 120 at-risk and handicapped youth in central Vietnam. In Hawaii, the concept of “aloha” has much resonance with mindfulness in that aloha’s spiritual definition is “to go empty so as to connect.” Mindfulness is one contemplative practice to discover the appropriate aloha response. The second half of the presentation discusses implementation and results of the program with 36 incarcerated mixed-ethnic/native Hawaiian/Pacific Islander youth using self-report survey measures, cortisol, SLgA, and findings from personal reflections. Cultural implications are discussed.

Authors: R Kumar, P Chaudhary, S Bharti, S Saxena
Theme: Clinical Science

56. A Study: To Find the Relationship between Smoking Behavior and “Life Effectiveness” of Modern Youth of Delhi, Meerut (U.P) and Bangalore (Karnataka)
Shashank Bharti, Bharat Institute of Technology, Meerut
Preeti Chaudhary, Bharat Institute of Technology, Meerut
Rita Kumar, Meerut Kidney Hospital, Meerut
Sagar Saxena, Bharat Institute of Technology, Meerut

Smoking among youth has been a major challenge for colleges and society. Modern educated youth, even after knowing severe health hazards of smoking, are still not able to refrain from indulging in smoking. Creating awareness and providing treatment and rehabilitation measures are not effective. In the present study, researchers have tried to develop preventive measures through “life effectiveness” to stop smoking behavior. To measure the life effectiveness, a “Review of Personal Effectiveness with Locus of Control” questionnaire was used, which measures 14 factors. A sample of 320 subjects was collected, which includes 160 smokers and 160 nonsmokers. Data was analyzed using one-way ANOVA and t-test. Results have shown highly significant difference in the parameters of life effectiveness of smokers and nonsmokers. Life effectiveness of nonsmokers is significantly high.

Authors: R Kumar, P Chaudhary, S Bharti, S Saxena
Theme: Clinical Science

57. Meditation Practice: Its Potential Role in Stroke-Related Visual Field Defect Rehabilitation
Gabriella Szatmary, Hattiesburg Clinic, PA

The visual system has a particular role in meditation practice that is emphasized by such expressions as “visualization.” Stroke patients with visual field defects like homonymous hemianopia have great difficulties in activities of daily living, such as driving and participating in the workforce. Presently, there is no evidence-based therapy available to reduce the extent of visual
59. Beyond the Tyranny Of Traumatic Language: EMDR & Yoga, A Method To Heal The Mind & Own The Body
Romina Aizpurua, Centro Integral de Psicoterapias con Soporte Empírico CIPSE, Buenos Aires, Argentina
The present research project seeks to analyze the value of yoga as a complementary health practice to the Eye Movement Desensitization and Reprocessing (EMDR) treatment of trauma survivors with post-traumatic stress disorder (PTSD). This work is based on the assumption that individuals with PTSD have several dysfunctional areas that maintain the symptomatology, and that information related to trauma is stored at the cognitive, emotional, and physical levels, impairing all of them. Considering the high chance for individuals to develop PTSD as a consequence of a traumatic event, it is necessary to work towards more effective integrative treatment interventions. It is well known that psychological trauma is a very complex phenomenon that represents a difficult challenge to mental health professionals, as it is treatment-resistant. This study seeks to provide an integrative protocol of treatment that combines EMDR and Ashtanga yoga to better assist health professionals in the treatment process of trauma survivors suffering from PTSD.
Authors: R Iebra Aizpurua, R Lescano
Theme: Clinical Science

60. The Destructive and Healing Components of Interpersonal Engagement: Integrating Neuroscience into Trauma Counseling and Resiliency
Laura Copley, The Pennsylvania State University
Distressing life events involving interpersonal relationships increase the risk for many psychological disorders. The relational nature of such trauma makes it important for counselors to be aware of both the destructive and healing properties of safe and secure interpersonal engagement. Interpersonal neurobiology takes into consideration the relational nature of trauma while also describing the unique functions of the brain. Recent literature has suggested the potential link between oxytocin, a hormone released during interaction with a close attachment figure, and coping abilities in women. The counseling profession needs to further its knowledge base on the role of this interpersonal attachment on the neurobiological experiences of trauma survivors, investigating how relationships, emotional and visceral experiences, and behaviors connect with physiological experiences of trauma. This presentation addresses these needs, highlighting the link between neurobiology and resilience after a distressing life event, and stressing the importance of healthy interpersonal engagement as a healing component in trauma therapy.
Authors: LA Copley
Theme: Clinical Science

61. Contemplative Reflection for the Recovery of Health and Wellness
Michelle LaMasa-Schrader, Soul Tree Transformations
This presentation introduces contemplative principles to access one’s life experiences and stories that contribute to physiological, psychological, and behavioral symptoms or diagnoses. Studies have investigated the health benefits of expressing personal experiences through story, highlighting the experience of emotions with longevity and immune functioning. Further data is illuminating how contemplative practices moderate interactions between the brain and bodily systems. Utilizing contemplative practices allows one to access stories that enable sensory awareness, and to uncouple the emotion from the experience, breaking unhealthy personal as well as genealogical patterns. This presentation will teach individuals these contemplative tools to access greater health and wellness.
Authors: M LaMasa-Schrader
Theme: Clinical Science, Practice

62. The Mindfulness Allies Project
Harrison Blum, Mindfulness Allies Project
The Mindfulness Allies Project (MAP) supports secular mindfulness training for...
people experiencing one or multiple forms of marginalization or oppression based on economic status or personal identity, such as race, ability, and sexual or gender orientation. These trainings are offered freely and occur as partnerships between meditation centers or teachers and local community organizations already serving such populations. MAP works to strengthen existing initiatives, foster the creation of new efforts, and network best practices among participating members. As Buddhist centers continue efforts to be inclusive, such as offering people of color and LGBTQ groups, MAP seeks to complement these efforts beyond the walls of meditation centers. MAP understands the integral role insight meditation and other Buddhist traditions have played in the creation of highly successful secular techniques (such as mindfulness-based stress reduction and mindfulness-based cognitive therapy), and envisions greater integration of secular mindfulness outreach into the missions and operations of Buddhist centers and teachers in the West. This poster presents the findings on MAP’s annual pilot mindfulness series.

Authors: H Blum
Theme: Clinical Science

63. Freedom from Suffering: An Ethnographic Research Proposal on the Emergent Work of Buddhist Contemplative Care Chaplains
Sara Ulrey, Columbia University Mailman School of Public Health
This ethnographic research proposal, developed by a Public Health graduate student, addresses the emergent work of Buddhist contemplative care chaplains as practiced and taught by the New York Zen Center for Contemplative Care. Specifically, this center trains hospital chaplains — a type of caregiver that remains understudied despite increasing recognition of the value of their service. This study will fill a gap in the literature through the collection of ethnographic interviews with both chaplains in training and their instructors, and also through participant observations of the training process. This research will substantiate how contemplative care is learned and taught, and begin addressing its impact in caring for those confronted with illness and end-of-life issues.

Authors: SA Ulrey, P Valera
Theme: Clinical Science, Practice

64. Compassion Meditation Effects on Early Stages of Alzheimer’s Disease
Rinchen Dchodrup, Qinghai University
Alzheimer’s disease is a progressive and degenerative brain disease that slowly erodes the neurons associated with memory and cognitive function, eventually even impairing the ability to carry out simple tasks in daily life. The current paper proposes that compassion meditation might preserve or enhance cognitive function, improve the capacity for emotion regulation, increase memory, enhance decision making, and reduce depressive and anxious symptoms. The beneficial changes may also promote neural plasticity, particularly in the hippocampus and temporal lobes — critical brain regions underlying the formation of memory and learning that are the most susceptible to shrinkage when people age.

Authors: Renqingdongzhu, Huaqingcuo, Renzengduojie
Theme: Clinical Science

65. The Hungry Ghost: A Biospsychosocial Perspective on Addiction, from Heroin to Workaholism
Vicky Dalai
Dr. Maté, who for twelve years practiced medicine in Vancouver’s notorious Downtown Eastside (North America’s most concentrated area of drug use), begins by telling the stories of his patients, who, in their desitution and uniformly tragic histories, represent one extreme of the addictive spectrum. With his trademark compassion and unflinching narrative eye, he brings to life their ill-fated and mostly misunderstood struggle for relief or escape, through substance use, from the pain that has tormented them since childhood. He also shows how the behavioral addictions of society’s more fortunate members — including himself — differ only in degree of severity from the drug habits of his Downtown Eastside patients, and how in reality there is only one addiction process, whose core objective being the self-soothing of deep-seated fears and discomforts.

Authors: G Mate
Theme: Clinical Science

66. Practical Application of Mindfulness and Meditation in Mental Health/Addiction Treatment Settings
Daniel Smith, BetNoMore Gambling Programs, Assessment Counseling Solutions
This workshop provides facilitators both novice and experienced with the practical knowledge needed to successfully implement mindfulness and meditation practices in clinical settings. Emphasis is on “letting go” and other significant practices related to 12-step meditative techniques, especially as relevant to incorporating 11th-step work; overcoming resistance; and providing a useful, pragmatic context for doing meditation with clients who have little to no experience. Ample research backs the facilitator’s own clinical experience as a clinician for more than 20 years, and as a practitioner of meditation for more than 27 years.

Authors: DL Smith
Theme: Clinical Science
71. Understanding the Behavioral Impacts of Teaching Mindfulness to Elementary Students: A Case Study of One Elementary Classroom

AnneMarie Rossi, University of Colorado, Denver

The purpose of this research was to examine the behavioral impacts of mindfulness instruction, and the potential for mindfulness to meet the requirements of a Positive Behavioral Interventions and Supports program. The randomized control/treatment study of 29 fourth-grade students was conducted in Denver Public Schools. The treatment group received 10 weeks of mindfulness training for 20 minutes, twice a week. Both teachers completed the Fastrack Teacher Social Competence pre- and post-intervention. Students completed the Child Assent Mindfulness Measurement pre- and post-intervention. The treatment group also completed a survey and interview evaluating the class. Both teachers reported increases in social competence. However, the treatment group outperformed not only the control group, but also the high-risk and normative mean. In addition, 100 percent of the treatment group reported that they enjoyed the class, personally benefitted from the practice, will continue to use mindfulness in the future, and believe other children should have mindfulness instruction. Results of this preliminary study suggest that mindfulness instruction may have contributed to growth in social-emotional learning, and therefore may meet the requirements of a Positive Behavioral Interventions and Supports program.

Authors: AM Rossi, B Dray
Theme: Education

72. MindUp Program Results on Third-Grade Class: A Quasi-Experimental Study

Joana Carvalho, Center for Research in Psychology, University of Lisbon

This study evaluated the results of MindUp (Hawn Foundation), a social and emotional program through mindfulness practice implemented by third-grade teachers from Portuguese schools. A quasi-experimental study compared outcomes for an experimental group to a waitlist control group. Data were collected for teachers and children through self and other report measures, and for quality and fidelity of program implementation. Firstly, results are discussed concerning how the program was implemented. Secondly, effects of the program on children are discussed for following variables: mindfulness, positive and negative affects, perspective taking, self-compassion, and emotion regulation. Moreover, results of teacher’s ratings on children’s socioemotional skills and on problematic behaviors are presented. Lastly, the program’s effects on teachers are presented in relation to mindfulness, self-regulation, burnout, self-efficacy, and well-being. Overall, the results showed that the program is beneficial to children and teachers, and is adaptable to the Portuguese academic curriculum.

Authors: J Maloney, J Whitehead, M Lawlor, K Schonert-Reichl
Theme: Education

73. Children’s Perceptions of the MindUP Program

Jacqueline Maloney, University of British Columbia

Jenna Whitehead, University of British Columbia

This poster describes children’s perceptions of MindUP, a mindfulness-based intervention that is being implemented in schools across North America. The evidence-based program integrates age-appropriate mindfulness-based practices with lessons on neuroscience, positive psychology, and mindful awareness. Two hundred children, ages 9 to 13, shared their experiences after participating in the program. Their responses to closed-ended survey questions were overwhelmingly positive with the majority reporting that they liked the program, that they learned something new, and that they could use some of the skills learned in the program in their everyday lives. In response to open-ended survey questions, children reported that the skills learned in the program helped them better regulate their emotions, have more control over their actions, increase their well-being, and be more grateful and kinder towards others. Practices the children generally found most useful and some of the challenges they encountered will be described.

Authors: J Maloney, J Whitehead, M Lawlor, K Schonert-Reichl
Theme: Education

are being used post-birth for parenting in general, and in emotion and attention regulation specifically; and (2) investigate the pathways by which mindfulness training in the perinatal period might affect intergenerational attachment patterns. Thematic analysis of the interview data reveals that the participants’ continued use of formal and informal mindfulness practices is multidimensionally increasing their capacity to self-regulate, tolerate distress, and attune to their child during parenting interactions. Overarching themes will be illustrated using graphical representations and verbatim quotes.

Authors: C Shaddix, LG Duncan, JG Cook, N Bardacke
Theme: Clinical Science

70. Mindfulness, Mind Wandering and Emotional Awareness in Primary School Children

Dusana Dorjee, Centre for Mindfulness Research and Practice, Bangor University

Research on mindfulness and neurocognitive markers in children is virtually absent. This presentation will detail a longitudinal project which investigated the impact of mindfulness training delivered over 10 weeks as part of regular primary school curriculum (10-11 year olds). The assessments combined self-report, reaction time and event-related brain potential measures of mind wandering and emotion awareness. EEG recordings during experimental tasks were collected using a portable EEG system in schools. Converging evidence from dispositional analyses at the baseline and longitudinal findings indicates that high mind wandering (indexed by self-reports and the P300 brain potential) is a significant correlate of low mindfulness, low emotional awareness, high expressive reluctance and negative affectivity in children. Mindfulness training also positively impacted on brain potential markers of emotional reactivity (P300 and the LPP). Overall, the project provided initial evidence on mindfulness-related modifications in psychophysiology of attention and emotion regulation in children.

Authors: D Dorjee
Theme: Basic Science, Education
74. Three-Year Follow-Up Evaluation of a Mindfulness Plus Mental Imagery-Based College Student Achievement Program

Adam Burke, Institute for Holistic Health Studies, San Francisco State University

Many students are inadequately prepared to meet the demands of college. As lower educational attainment results in significant disparities in income, health, and other critical social markers, innovative approaches to enhance academic success are needed. A novel 16-week undergraduate academic success course was developed and evaluated. The course included typical student achievement content, plus three core practices of goal setting, mindfulness, and mental imagery to support metacognitive awareness, academic self-efficacy, and positive expectancy for success. An online evaluation was sent to 2010–2013 course participants. The survey included 21 items soliciting feedback on levels of perceived life/academic benefits, such as changes in study habits and emotional self-regulation. Exploratory factor analysis revealed three main themes: resilience, study management/quality, and integration into campus community. The six resilience factor items reflected qualities of agency, optimism, and awareness. Qualitative responses described beneficial effects of course elements including use of mindfulness/meditation and mental imagery.

Authors: A Burke
Theme: Education

76. Mindfulness as Mortar for the Schoolhouse: Using Mindfulness Meditation to Increase Student Well-Being, Awareness, and Sense of Self-Agency

Pamela Garner, George Mason University, New Century College

Amrit Kasten-Daryanani, Wakefield School

Does mindfulness meditation and directed self-compassion help students coping with a learning disability in an intensely academic independent school? Does it reduce stress, increase task persistence, and provide students with the ability to "push back" against their diagnosis? This poster explores how a six-week mindfulness meditation program is influencing a group of twice-exceptional students at Wakefield School, a PS-12 prep school with a highly charged academic setting. It explains how mindfulness programming supports a key mission of the learning support program, which is to help students accept, understand, and challenge their learning disabilities and differences. Efficacy measures include pre- and post-testing, structured interviews, and teacher feedback.

Authors: A Kasten-Daryanani, P Garner
Theme: Education

77. Benefits of Mindfulness Meditation for College Students Who Are Army Veterans

Irina Grichtchenko, University of Colorado Colorado Springs

This report is based on having taught a 16-week course on mindfulness meditation at the University of Colorado, Colorado Springs. Many veterans who become college students in Colorado Springs thanks to their army benefits have posttraumatic stress disorder, depression, and family problems. Since bright college students usually have skeptical minds, this course — which is based upon the MBSR principles developed by Jon Kabat-Zinn — is really geared toward them. We performed behavioral and well-being surveys before and after the 16-week college course. We report new findings showing benefits that are specific to our veterans.

Authors: M Danilewitz, D Koszycki, J Bradwejn
Theme: Education

78. Mindfulness Reduces the Effects of Loneliness on Academic Achievements

Eyal Rosenstreich, Peres Academic Center, Rehovot, Israel

Lonely students typically underperform academically due to depletion of cognitive resources. Mindfulness training, in contrast, has been demonstrated to improve certain cognitive abilities. This study was aimed at examining whether mindfulness practice may moderate the impact of perceived loneliness on academic achievements. In this study, we crossed data from two separate studies. In the first, loneliness, optimism, and academic self-efficacy were measured at the beginning of the academic year. In the second, memory performance was measured as a function of mindfulness training. In all, a total of 73 college students have participated in both studies, and we crossed their data with their academic achievements (academic grades at the end of the trimester and at the end of the year).

Authors: E Rosenstreich, M Margalit
Theme: Education

79. The Emergence of Academic Mindfulness Centers Associated with Medical Schools

Nicholas Barnes, Harvard Medical School/Cambridge Health Alliance

As scientific evidence supporting health benefits of mindfulness has grown, numerous medical schools have begun offering mindfulness-based interventions (MBIs) through research, clinical-care, or employee-wellness programs. Several have incorporated mindfulness into their main curriculum. Academic Mindfulness Centers Associated with Medical Schools (AMCAMS) have emerged, but very little is known about their nature. A systematicic survey is needed to understand how AMCAMS are organized, the manner in
which they generate revenue, and types of MBIs offered. Using a systematic internet-search methodology, we recorded mindfulness-related activities occurring at all 140 United States medical schools during 2014. We invited all AMCAMS to complete a survey about organizational function and structure. We will describe characteristics of AMCAMS, and identify differences between small- and large-revenue centers in order to clarify attributes needed to support AMCAMS growth. This represents the first large-scale attempt to secure a database of information on all mindfulness programs affiliated with U.S. medical schools.

Authors: N Barnes, DS Black, P Hattan, Z Schuman-Olivier

Theme: Clinical Science, Education

80. Contemplative Practice, Metacognition, and Physics Problem Solving
Zosia Krusberg, Vassar College

A substantial gap exists between cognitive science research on physics problem solving and problem-solving instruction in university physics courses. A notable finding from problem-solving research suggests that metacognition — awareness of one’s own cognitive processes — plays a critical role in the problem-solving process. Meanwhile, contemplative traditions offer an astounding array of practices that aim precisely at deepening our awareness of our mental states and processes. In this work, we present a comprehensive curriculum in classical mechanics, aimed primarily at consolidating students’ conceptual understanding of classical mechanics and developing students’ problem-solving ability, grounded firmly in findings in physics education and cognitive science research. The curriculum emphasizes the role of metacognition in the consolidation of knowledge structures and in the development of problem-solving strategy, and incorporates a range of contemplative practices — including reflective writing, sitting and walking meditation, and visualization and beholding exercises — to further metacognitive development.

Authors: Z Krusberg, B Wills

Theme: Education

81. An Empathetic Beginning in Education: Exploring the Prospects of Self-Regulation Skills on Pro-Social Behavior in the Early Childhood Environment
Elizabeth Willis, Florida International University

This review seeks to discuss how self-regulation skills can be used in early childhood education to enhance children’s pro-social skills and behavior. Specifically, this review examines the potential theoretical links and similarities between the architecture of self-regulation skills, and pro-social behavior such as empathy and compassion. Implications for research and practice will be discussed.

Authors: E Willis

Theme: Education

82. Promoting Reconciliation Through Contemplative Christian Spiritual Formation
Margaret Beatty, Ecumenics/Central Baptist Theological Seminary

Contemplative practice crosses all boundaries, from secular mindfulness training to contemplative prayer/meditation in all religious traditions. Sages through time know that contemplative practices are a means by which we develop an inner and outer perceiving/assimilating balance; we bring wisdom to purpose. The ecumenism of contemplative practice renders it a powerful reconciling tool. Western culture holds a definitive value bias toward objective perception — a bias that greatly impacts our economy, ecology, social equality, and religious understanding. Historically, Western congregational Christianity has not really emphasized prayer as a spiritual development skill. My project will outline curriculum for seminary students (or others who study Christian contemplative practices) on prayer as a spiritual development skill. It will incorporate intellectual and contemplative elements, and cover types of prayer, spiritual practices, elements of spiritual development, psychology of prayer, and the influence of personality type on prayer experience.

Authors: MT Beatty

Theme: Education, Practice

83. Attracting Students to Contemplative Practice: Biofeedback Interventions
Carol Austad, Central Connecticut State University
Cosima Hoetger, Central Connecticut State University
Andrea Shaker, Central Connecticut State University

How do you introduce students who have had little to no exposure to contemplative practice to experience it, to practice it, and to value it? Contemplative practice may increase health wellness and lifelong learning. While mindfulness is free, access to training may be costly or inconsistent amongst colleges and Universities. While those from the higher socioeconomic brackets may have resources to participate in contemplative practice, middle class to lower-middle class students who are burdened with the struggles of economic survival on an everyday basis may lack sufficient resources to learn about, appreciate, and integrate contemplative practices. In this poster session, students who work as biofeedback technicians will describe the workings of our research program. They describe how the biofeedback center has served to increase contemplative states. More than 85 percent of students find biofeedback breath training to be a positive experience. Biofeedback can serve as a useful tool to introduce and encourage college students to adapt to contemplative practice.

Authors: CS Austad, MS Gendron, S Geiling, C Hoetger, D Pagliarello, C Green, A Shaker

Theme: Education

84. Compassion in Education
Pamela Cayton, Tara Redwood School and Creating Compassionate Cultures

Creating Compassionate Cultures offers a secular education program based on a blend of ancient wisdom, scientific research, and practical experience for awakening and nurturing the hearts and minds of children, teens, and families. Our purpose is to empower youth, communities, and people of all ages to live happy, successful, and meaningful lives. This methodology follows a step-by-step framework of 7 Steps to Knowledge, Strength and Compassion developed at Tara Redwood School in California since it was founded in 1989. It is a secular approach that
awakens wisdom, compassion, and secular ethics, and empowers people of all ages to make a positive difference in the world.

Authors: P Cayton
Theme: Education

85. Inspirations for Young Mind: Caring for Water Through Mindful Design Practice
Kumanga Andrahennadi, University of Dundee
A module on “mindful design practice” has been incorporated within the curriculum of the master of service design course at the University of Dundee (DJCAD), Scotland. This is a four-week module that investigates the importance of becoming a mindful designer. Throughout history, many artists have looked to water for creative inspiration, producing artwork that includes rainbows and sunsets, thunderstorms and cloudscapes, waterfalls, and waves. In addition, Masaru Emoto has been a pioneer of researcher into the effects of our thoughts, words, and feelings upon the energetic purity of water molecules. The mindfulness meditation program conducted within this module uses “water” as a mindfulness tool to improve concentration and creativity, while providing relief from anxiety and stress. The paper discusses how the mindful design practice module explores how engaging with “water” as a mindfulness tool with the human senses can help the creative thinking process.
Authors: KC Andrahennadi, S Baxter, R Tulku Rinpoche
Theme: Education

86. Challenges and Potentials of Contemplative Education in Latin America
L. Emiliana Rodríguez, AtentaMente
Latin America has a particular history, cultural heritage, and political and educational systems. Even though the effects of contemplative practices have been studied in various contexts in North America and Europe, there are almost no research initiatives in Latin America on this subject. This research addresses the particular challenges and potentials of contemplative-based curriculums that are already being implemented in Latin America through the exploration of its current educational system and a case study on the effects of the contemplative program “Educando en Equilibrio” implemented in Mexico.
Authors: LE Rodríguez, DL Cardero, MA Karam
Theme: Education

87. Contemplative Practices in Higher Education: Integration and Adaptation
Carrie Bergman, The Center for Contemplative Mind in Society
Jennifer Palmer, The Center for Contemplative Mind in Society
Since 1997, The Center for Contemplative Mind in Society has been the leading organization dedicated to supporting the development of contemplative pedagogy and the integration of contemplative practices in higher education, establishing initiatives such as the Contemplative Practice Fellowship Program and supporting a network of scholars and academic professionals through the Association for Contemplative Mind in Higher Education. This poster will articulate the rationale for the inclusion of contemplative practices in higher education as envisioned by the Center, and offer resources for the integration and development of contemplative methods throughout the disciplines and across postsecondary education, including centers for teaching and learning, counseling, student services, and classrooms of multiple disciplines. Challenges to these approaches will also be discussed.
Authors: C Bergman, J Palmer
Theme: Education

Lisa Napora, State University of New York, Buffalo
How can the acceptance and the infusion of contemplative practices be furthered within the higher education system? This presentation employs a new theoretical model that positions the results of contemplative practice within a well-established framework for measuring educational value: a contemporary learning outcomes framework. This structure creates a conceptual and theoretical bridge that systematically connects contemplative development and the processes of learning, while addressing the assessment-driven concerns of education leaders. Application of this theory-driven model in education settings offers guidance for curriculum development and strategic research design, and serves as a catalyst for pedagogical innovation. This framework, mapped with evidence from existing research, can be used as an advocacy tool to raise awareness about the effectiveness of contemplative practices. Thus, contemplative practices are reframed as a set of valid pedagogical tools that facilitate more engaged learning and enhance 21st-century skill development.
Authors: L Napora
Theme: Education

89. Growth and Awakening: Why Contemplative Practices Need Ego Development
Blaine Snow, Saint Martin
Western contemplatives commonly believe that spiritual awakening also produces ethical maturity — that an awakened person will naturally embody the egalitarian, world-centric values that are standard in contemporary multicultural society. This paper argues that waking up does not guarantee growing up (defined as the process of developing from an ethnocentric to an anthropocentric to a worldcentric self), moving from lesser to greater degrees of inclusion, perspective taking, caring, and compassion. Whereas the Buddhist tradition aims at awakening and transcending samsara by cultivating compassion and taming the mind, the Western tradition cultivates greater degrees of care and compassion by developing the mature ego within samsara. The project of transcending the ego and its frameworks should not be confused with growing and maturing the same. Self-transcendence and self-development must inform each other, and both are necessary for realizing our full human potential.
Authors: B Snow
Theme: Philosophy/Humanities
91. The Evolution of Wellness
Geraldine Abergas, Primitive Healing
In an era where mindfulness practice has become more commonplace, collectively we remain confused about the true meaning of wellness. First introduced in the 1950s, “high level wellness” was understood to be a necessity in order to endure changing times. Decades later, however, the question remains: Have we learned to better adapt to our environment, better managing outside forces and optimizing our inner capabilities? Are we causing a greater divide not only among others but also within ourselves in efforts to achieve balance? As a student of the sciences and a healer by trade, understanding the dance between mind, body, and spirit have been instrumental to my practice. The intention is for our cognitive selves to lay the groundwork, asking the right questions while addressing pain, and eventually understanding the physical body and its relationship with the spirit, and — most importantly — how our emotions influence this triad of wellness.
Authors: G Abergas
Theme: Other

92. Sensing Mindfulness: Sensory Consciousness as a 21st-Century Literacy
Melanie McBride, Experiential Design and Gaming Environments Lab, Ryerson University
Jason Nolan, EDGE Lab, Experiential Design and Gaming Environments Lab, Ryerson University
Marshall McLuhan once theorized that technologies are “extensions” of the human sensory apparatus. And yet, it seems as if the reverse has occurred, and that our senses and sensory “order” have been radically re-configured by technology in accordance with the capabilities and limitations of devices rather than the needs of our bodies. Our new sensory order, oriented to the needs of the computer, has giant eyes, ears, and hands, but no mouth or nose to smell or tongue to taste. Drawing on my emerging doctoral study of the digital mediation of sensory experience, this theoretical talk examines the Buddhist “mind-science” of “sensory consciousness” as a core 21st-century literacy, where one needs to see, hear, touch, smell, and taste “mindfulness awareness.”
Authors: M McBride, J Nolan
Theme: Other, Practice

93. The Philosophy and Practice of Empathic Reasoning
Melle Stegeman, Zorg begint bij mij (Care Starts With Me)
The progress of Western enlightenment seems to have stalled; reason will have to take empathy as its new partner. What about reasoning itself? Will we continue to progress based on objective reasoning alone? Or will we be able to sensibly reason together based on subjectivity, even when logic and emotions collide? This presentation addresses the philosophy and practice of empathic reasoning. It makes clear how mindfulness and empathy can be part of objective reasoning and enforce it, and how we can progress civil society by combining the forces of both objective and empathic reasoning.
Authors: M Stegeman
Theme: Philosophy/Humanities

94. Secular Meditation: Organ Flow Qigong Meditation and Chakra Flow Meditation
Gabriel Stux, German Acupuncture Society
Organ flow qigong meditation and chakra flow meditation are two meditation methods developed by the author in the daily practice of acupuncture and Chinese medicine, which help to intensify the effects of these healing modalities. For 10 years, these meditation methods have been practiced in the medical practice in the Düsseldorf Acupuncture Center. In the planned presentation, the two methods and their background are shown and practiced by the audience. Organ flow qigong meditation strengthens the life force in treatment sessions. Organ flow meditation is an advanced form of Shamatha-based qigong meditation. This qigong meditation follows the principles of the nourishing mother-child cycle of the five elements, and strengthens the five inner organs. These organs and their vital functions are the sources of the life force in our body. The “Mother-Child Law” states that each organ in the sheng cycle strengthens the next one.
Authors: G Stux
Theme: Practice

95. Tong Ren Healing System: Accessing the Collective Unconscious to Heal Body-Mind-Spirit
Janice Goldman, University of Massachusetts, Boston
A fast-paced conceptual overview and lively demonstration of Tong Ren (TR). Drawing on Jung’s theory of the collective unconscious, TR is a highly targeted method of directing healing energy that restores the flow of bioelectricity, vitality, and one’s sense of physical and emotional well-being. The Tong Ren healing system theorizes and practices “intention” in a distinctive way. The subconscious mind engages with the collective unconscious in creating intention. This idea bears similarity to the scientific concept of synchronicity. The principles of bioelectricity and the collective unconscious are aspects that present an alternative paradigm to the Western medical model. The practice of Tong Ren healing is easily replicable, and can be practiced and experienced by anyone. A sense of calm and relaxation is typically experienced, borne out by brainwave recordings. Results from a 12-year ethnographic study will be shared.
Authors: J Goldman
Theme: Practice

96. Consciousness, Entanglement, and Compassionate Cooperation
Lynne D’Amico, Knowledge-Shaping Solutions, LLC
This presentation reveals how the capacity to transform negative attitudes and emotions requires using the mind to invite and support connection between self and other when the brain generates automatic and negative reactions. This causes separation, the root cause of subtle as well as extreme embodiments of negative thought. Using the context of interpersonal relationships to illuminate a pragmatic and interdisciplinary response, this presentation demonstrates how attitudes and emotions entangle self and other in a dynamic and evolving tension, the emerging process of self and consciousness that is every relationship. It reveals how we use language and other emotionally significant symbols to generate a force of mind
that draws others closer, or pushes them away. It uncovers how to redirect polarizing forces that separate our unified mental forces in order to connect and rebalance the negative tension within a relationship dynamic. It does so by addressing matters of power sharing and reciprocity.

Authors: L D’Amico
Theme: Other

98. Polymaths of the Future
Bhagavathy Ramachandran, University of Southampton Solent
With the advent of technology, we have access to information from various fields. How do we focus on converting this into knowledge? How does readily available information alter our learning processes? When answering these questions, it is important to consider whether we will continue restricting ourselves to specific areas of specializations, as fostered by the industrialization period. With a growing body of research pointing towards a better understanding of “neural hubs,” maybe the restriction to a case of “either-or” arts and logic can perhaps be largely attributed to conditioning. By unconditioning and unlearning, is there a possibility of the return of the polymath in the true sense? Will there be more numbers of polymaths around the world? Will the human race forge ahead as a species that taps its consciousness to learn whatever it wants to?

Authors: B Ramachandran
Theme: Other

99. Planetary Hospice
Zhiwa Woodbury, California Institute of Integral Studies
The pace of climate change continues to accelerate, and it now appears inevitable that the great anthropocentric extinction currently unfolding will include the end of life as we know it. Characterizing this “Great Dying” as equivalent to a terminal diagnosis for the human race and assuming an ecopsychological perspective that sees a close relationship between planetary health and mental health, the author applies the stages of grief to this Great Dying, exploring connections between mental health trends in the United States, our awareness of the severity of the threat we pose to the planet, and the stages of grieving the loss of life. The author asks what the role of mental health professionals should be in this context. He then applies hospice and palliative care principles to our process, asking what a “good death” might look like in this context and how to transform the suffering into an affirmative spiritual rebirth.

Authors: Z Woodbury
Theme: Other

100. Mathematics of Enlightenment
Alec Rogers, ArborRhythms
The distinction between conceptual and nonconceptual mind is essential to understanding the nature of enlightenment. For that reason, Buddhists have often developed elaborate psychological models to capture this distinction. In this paper, we propose using mathematics as a psychological model by using set theory as the basis for conceptual mind, and mereology as the basis for nonconceptual mind. This model is then used to develop a mathematical model of selflessness and enlightenment.

Authors: A Rogers
Theme: Basic Science, Other

101. The Theory of Time and Space
Richard Blum, Animation Online
If God is true and science is true, then what is needed is a new vision of reality that unites the laws of physics with spiritual truths. The Theory of Time and Space postulates that there is a physical level more elementary than time and space that originates from a transcendent reality: It is existence. The theory details the creation of the universe, explaining how existence particles emerge from the transcendent, and how they form time and space during the Big Bang. Viewing space-time as a substance comprised of discrete particles potentially explains unsolved mysteries of physics. This vantage point allows for postulations regarding why light always travels at a constant speed, why time flows in one direction, why time slows down in a gravitational field, and why the universe inflates. It also potentially explains the foundation of quantum mechanics: light’s dual wave-particle property.

Authors: R Blum
Theme: Basic Science, Other

102. Hypnotherapy as Neurophenomenology Through Artistic Expression
Michele Paiva, Paiva Psychotherapy and Coaching
Artistic expression is a very internal world; with phenomenology as a vehicle to neuroplastic changes, both internal and external changes through the umbrella of hypnotherapy. There is a profound, personal, and inherent change in how individuals react, act, perceive, heal, and live when they are able to get into a self-aware hypnotic state — through art — to both express and address their inner worlds, while the synchronous paths of phenomenology and neuroscience coexist as conduits for healing of self and external world.

Authors: M Paiva
Theme: Arts

103. Virtual Spaces as Mindfulness Practice
Julieta Aguilera, Space Visualization Laboratory, Adler Planetarium
This paper offers insights on the artistic practice of creating virtual environments that are responsive to body motion in order to bring attention to the present. The act of being in a spatial environment where visual consequences reflect the body that triggered them are sought to help focus the mind in a way akin to what Varela described as “perceptually guided action.”

Authors: J Aguilera
Theme: Arts
Saturday begins with yoga and meditation in the morning followed by a keynote address. The morning will conclude with a selection of five concurrent master lectures. The afternoon continues with another master lecture session. There will be a coffee break and opportunity for networking before two 45-minute slots featuring more than 20 concurrent sessions. Finally, to wrap up another full day of programming, there will be a second poster session and selection of contemplative arts presentations. Saturday comes to a close with a banquet dinner with Arianna Huffington at 7:00 PM. This is a separately ticketed event so please make sure to register in advance!

**REGISTRATION**

7:00 AM – 12:00 PM

4th Floor Registration Window

<table>
<thead>
<tr>
<th>Time</th>
<th>MAIN TRACK</th>
<th>CONTEMPLATIVE TRACK</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 AM – 7:00 AM</td>
<td></td>
<td>Yoga</td>
</tr>
<tr>
<td>7:00 AM – 7:30 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:30 AM – 8:20 AM</td>
<td></td>
<td>Contemplative Practice</td>
</tr>
<tr>
<td>8:20 AM – 9:00 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00 AM – 10:00 AM</td>
<td></td>
<td>Keynote</td>
</tr>
<tr>
<td>10:00 AM – 10:45 AM</td>
<td></td>
<td>Coffee &amp; Tea Break</td>
</tr>
<tr>
<td>10:45 AM – 11:30 AM</td>
<td>Master Lectures</td>
<td>Contemplative Practice</td>
</tr>
<tr>
<td>11:30 AM – 1:30 PM</td>
<td></td>
<td>Lunch</td>
</tr>
<tr>
<td>1:30 PM – 2:15 PM</td>
<td>Master Lectures</td>
<td>Contemplative Practice</td>
</tr>
<tr>
<td>2:15 PM – 3:00 PM</td>
<td></td>
<td>Coffee &amp; Tea Break</td>
</tr>
<tr>
<td>3:00 PM – 3:45 PM</td>
<td>Concurrent Session</td>
<td>Contemplative Practice</td>
</tr>
<tr>
<td>3:45 PM – 4:00 PM</td>
<td></td>
<td>Concurrent Session</td>
</tr>
<tr>
<td>4:00 PM – 4:45 PM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:45 PM – 5:00 PM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00 PM – 6:00 PM</td>
<td></td>
<td>Poster Session</td>
</tr>
<tr>
<td>6:00 PM – 7:00 PM</td>
<td></td>
<td>Art Exhibit</td>
</tr>
<tr>
<td>7:00 PM – 9:00 PM</td>
<td>Banquet Dinner Keynote</td>
<td>Music Performance</td>
</tr>
<tr>
<td></td>
<td>(ticketed event)</td>
<td></td>
</tr>
</tbody>
</table>
Contemplation in Contexts: Tibetan Buddhist Meditation Across the Boundaries of the Humanities and Sciences

David Germano, University of Virginia

This talk explores a central challenge in contemplative sciences: the roles of so-called “contexts” in contemplation and the possibility of consilience between the humanities and sciences in contemplative research. It will focus on a specific contemplative tradition, namely Tibetan Buddhist practices, to address this in a deeply contextual manner. This is particularly appropriate given that it constitutes one of the world’s most diverse contemplative traditions that is also the subject of considerable scientific investigation and scholarly analysis. In its discourses and practices of emptiness and interdependent origination, Buddhism explores the way each thing in the world has constitutive threads trailing off into impossible complexities. Contemplation is no exception, with endless numbers of constitutive “contexts” for each practice and experience that far escape our scope of understanding. Given the central and constitutive character of contexts, it raises questions about our too-quick decisions about what is core and context in contemplative research. The talk will explore 12 different contexts—contexts that are often prescribed in detail in traditional literature—and argue that scientists and practitioners alike tend to take contemplation out of such “contexts”, thus making assumptions that throw our subsequent conclusions into question in the process.

Welcome to the Guest House: Meeting the Visitors at Your Door

Saki Santorelli, University of Massachusetts Medical School

Our lives are filled with unwanted or unforeseen moments. Being so, how shall we meet them? In a conversation with his students (later formulated into a poem entitled “The Guest House”), Rumi — the 13th-century Sufi master and poet — offers us an instructional guide for meeting such moments. During this practice session, we’ll explore the possibility of learning to turn towards and welcome, beyond liking and disliking, these “visitors” at our door, in an open, deliberate, nonaggressive manner.

Yoga: Meditation in Motion

Richard Freeman, Yoga Workshop
Mary Taylor, Yoga Workshop

See page 5 for session description.
Master Lectures
10:45 AM – 11:30 AM

Salon A - D

Researching the Dynamics of Lived Experience
Claire Petitmengin, Institut Mines-Télécom, Ecole Normale Supérieure, Paris

The founding idea of neurophenomenology, a research program initiated by Francisco Varela, is that in order to progress in the understanding of the human mind, it is indispensable to integrate a disciplined study of human experience in modern cognitive neuroscience. In *The View from Within*, Varela defined the requirements for a scientific discipline as including a domain of investigation, clear procedures for accessing and describing this domain, validation processes, and a community of researchers trained in these procedures. The neurophenomenological project was first hampered by the deficit of methods fulfilling these requirements. Where are we 15 years later? On the basis of concrete examples, I will present the procedures and results of a new method enabling researchers on the one hand to collect rigorous and fine-grained descriptions of the microdynamics of lived experiences of a given type, and on the other hand to compare these descriptions and detect generic structures. I will then present the results of a pilot study applying this method to the dynamics of meditative experience, and will go on to evaluate the usefulness of such an investigation for the meditation practitioner, the meditation instructor, and finally the researcher in consciousness and contemplative studies.

Theme: Basic Science

Salon E

Contemplative Science and Adult Development
Elissa Epel, University of California, San Francisco
Al Kaszniak, University of Arizona
Lis Nielsen, National Institute on Aging

Aging and Meditation: Evidence from Cognitive, Affective, and Neuroscientific Research (Al Kaszniak)

Select claims of contemplative teachers and a growing body of research suggest that meditation practice may provide a path toward a wiser, more equanimous, and resilient life as we age. This presentation will discuss the author’s and other research on aging, meditation, cognitive and affective functioning, and the brain. Evidence for the relationship of meditation practice to enhanced attention, emotion regulation, and aging-relevant aspects of brain structure and function will be emphasized, and directions for future research explored.

Aging and Meditation: Insights from Our Aging Cells (Elissa Epel)

Ancient wisdom describes unity of mind and body, and how living in the present can promote healthy aging. A measure quantifying the rate of biological aging beyond the absence of disease could offer insights into meditation-aging relationships, but such a measure has been elusive. We now have several methods to examine aspects of cellular health that reflect biological age, such as the telomere/telomerase system, mitochondrial health, inflammatory markers, and gene expression profiles. Does meditation truly lead to increases in cellular health, reflected by these markers of age? This presentation will discuss the emerging body of research that measures indices of biological age, how these may differ in long-term meditators versus controls, and how they can be influenced by meditation interventions, both short-term and intensive. We will review the evidence to date, examine possible mechanisms, and explore paths for further inquiry.

This session will be chaired by Lis Nielsen.
Theme: Clinical Science

Salon F

Fostering Resilience through Mindfulness in Childhood
Philip Zelazo, Institute of Child Development, University of Minnesota

Early childhood is marked by substantial development in self-regulatory skills, such as executive function (EF), that support school readiness and socioemotional competence. Indeed, individual differences in EF in childhood predict a wide range of...
important developmental outcomes, including physical health, and EF is increasingly a target of therapeutic, remedial, and universal interventions. This lecture will address recent advances in research on EF and discuss the implications of this research for the design and implementation of effective ways to support the healthy development of EF. Research on prefrontal cortical structure and function, for example, has sharpened our understanding of the neurocognitive processes underlying EF that may be targeted for training, and revealed periods during which EF-related neural systems show heightened sensitivity to environmental influences. Following a brief introduction that presents a view of neurocognitive development as a dynamic process of adaptation involving both more top-down (controlled) regulatory processes and more bottom-up (automatic) influences on behavior, this lecture will cover recent research on interventions for young children. One example is mindfulness training — using age-appropriate activities to exercise children’s reflection on their moment-to-moment experiences. Mindfulness training may support the development of self-regulation by targeting top-down processes while modifying bottom-up influences (such as anxiety, stress, curiosity) to create conditions conducive to reflection.

Theme: Education

SALON G
Science, Daoism, and Scholarly Subjectivity
Harold Roth, Religious Studies and East Asian Studies; Contemplative Studies Initiative, Brown University

The Classical Daoist tradition in China, known through its two famous “mystical” works, the Daodejing (“The Way and its Potency”) and the Zhuangzi (“Teachings of Master Zhuang”), provides specific advice about forms of contemplative practice that develop qualities of selfless and impartial cognition, thus enabling accurate perceptions, judgments, and spontaneous intuitions to be made about the world. Scientific research and humanistic scholarship in contemplative studies — as in all major disciplines — are founded on methods that have come to be regarded as “objective.” Yet, not a few philosophers have pointed out that it is human subjectivity that is the ultimate source of all these objective methods. While the modern academy trains individual subjectivities in logic and scientific method, it has largely neglected their training as contemplatives. This has led, at times, to biased research that claims to be “objective,” and a failure to plumb the mysteries of how we creatively synthesize the data we gather into coherent hypotheses and theories. In this master lecture, I will present an argument for the ways in which forms of contemplative self-cultivation from the classical Daoist tradition — and from other wisdom traditions, as well — can help to discern subjective bias and foster subjective intuition. In this master lecture, I will present an argument for the ways in which forms of contemplative self-cultivation from the classical Daoist tradition — and from other wisdom traditions, as well — can help to discern subjective bias and foster subjective intuition.

Theme: Philosophy/Humanities

SALON H - K
Contemplative Clinical Science
Zindel Segal, Campbell Family Mental Health Research Institute at the Centre for Addiction and Mental Health, University of Toronto, Scarborough

Overidentification with mental contents, excessive self-reference, and ceaseless discrepancy monitoring perpetuate symptom expression in physical and mental disorders. Mindfulness meditation, among other contemplative practices, enhances access to an alternative mode of processing that is less reliant on these strategies and instead promotes effective regulation through accepting, present-oriented, and somatically informed states of mind. In recognition of this promise, secular, structured programs designed to teach mindfulness in applied settings have proliferated, with this very dissemination being lauded as the vanguard of a revolution in health care. Unfortunately, this acclamation is premature, especially when so little is known about the mechanisms, mediators, and specificity of these interventions. For example, causal specificity of mindfulness practice and clinical benefit along with documenting the durability of effects would seem to be a necessary minimal to warrant this enthusiastic embrace. At this point in its evolution, studies testing a priori hypotheses linked to competing mechanistic accounts of mindfulness-based interventions will be particularly helpful in moving the field forward. In time, they may shed light on how exactly practice-linked momentary experiences of metacognitive insight can be transformed into enduring pathways for behavior change and compassionate self-care.

Theme: Clinical Science
SOMATIC FEELINGS
and fatigue. Everyday experiences of stress, distraction, and the physical sense of presence. The talk also helps us understand why somatic awareness training may be such a critical component of so many traditional contemplative practices: It teaches practitioners to perceive a direct, tangible correlate of their own mental focus. That is, by learning to sense subtle body sensations, practitioners learn to work with and feel the mind’s attentional focus. Work by our group and others has shown that this direct perceptual processing engaged by somatic awareness practice (e.g., directing attention to sensations in the hands or the soles of the feet) can bring about rapid changes in brain dynamics that may buffer various forms of mental distress. Throughout, evidence is presented that this ability to regulate brain dynamics by noticing and paying attention to subtle somatic feelings that arise during practice may offer a palpable antidote to common everyday experiences of stress, distraction, and fatigue.

Theme: Practice

SOMATIC AWARENESS TRAINING
in mindfulness, Tai Chi, yoga, and other practices change the brain. It also helps us stay “present” to ourselves and the world around us. This talk describes how somatic awareness practice helps us maintain presence by retraining brain dynamics that (1) regulate attention, emotion, and working memory; and (2) maintain balance, coordination, and the physical sense of presence. The talk also helps us understand why somatic awareness training may be such a critical component of so many traditional contemplative practices: It teaches practitioners to perceive a direct, tangible correlate of their own mental focus. That is, by learning to sense subtle body sensations, practitioners learn to work with and feel the mind’s attentional focus. Work by our group and others has shown that this direct perceptual processing engaged by somatic awareness practice (e.g., directing attention to sensations in the hands or the soles of the feet) can bring about rapid changes in brain dynamics that may buffer various forms of mental distress. Throughout, evidence is presented that this ability to regulate brain dynamics by noticing and paying attention to subtle somatic feelings that arise during practice may offer a palpable antidote to common everyday experiences of stress, distraction, and fatigue.

Theme: Practice

SOMATIC AWARENESS TRAINING
in mindfulness, Tai Chi, yoga, and other practices change the brain. It also helps us stay “present” to ourselves and the world around us. This talk describes how somatic awareness practice helps us maintain presence by retraining brain dynamics that (1) regulate attention, emotion, and working memory; and (2) maintain balance, coordination, and the physical sense of presence. The talk also helps us understand why somatic awareness training may be such a critical component of so many traditional contemplative practices: It teaches practitioners to perceive a direct, tangible correlate of their own mental focus. That is, by learning to sense subtle body sensations, practitioners learn to work with and feel the mind’s attentional focus. Work by our group and others has shown that this direct perceptual processing engaged by somatic awareness practice (e.g., directing attention to sensations in the hands or the soles of the feet) can bring about rapid changes in brain dynamics that may buffer various forms of mental distress. Throughout, evidence is presented that this ability to regulate brain dynamics by noticing and paying attention to subtle somatic feelings that arise during practice may offer a palpable antidote to common everyday experiences of stress, distraction, and fatigue.

Theme: Practice

SOMATIC AWARENESS TRAINING
in mindfulness, Tai Chi, yoga, and other practices change the brain. It also helps us stay “present” to ourselves and the world around us. This talk describes how somatic awareness practice helps us maintain presence by retraining brain dynamics that (1) regulate attention, emotion, and working memory; and (2) maintain balance, coordination, and the physical sense of presence. The talk also helps us understand why somatic awareness training may be such a critical component of so many traditional contemplative practices: It teaches practitioners to perceive a direct, tangible correlate of their own mental focus. That is, by learning to sense subtle body sensations, practitioners learn to work with and feel the mind’s attentional focus. Work by our group and others has shown that this direct perceptual processing engaged by somatic awareness practice (e.g., directing attention to sensations in the hands or the soles of the feet) can bring about rapid changes in brain dynamics that may buffer various forms of mental distress. Throughout, evidence is presented that this ability to regulate brain dynamics by noticing and paying attention to subtle somatic feelings that arise during practice may offer a palpable antidote to common everyday experiences of stress, distraction, and fatigue.

Theme: Practice

SOMATIC AWARENESS TRAINING
in mindfulness, Tai Chi, yoga, and other practices change the brain. It also helps us stay “present” to ourselves and the world around us. This talk describes how somatic awareness practice helps us maintain presence by retraining brain dynamics that (1) regulate attention, emotion, and working memory; and (2) maintain balance, coordination, and the physical sense of presence. The talk also helps us understand why somatic awareness training may be such a critical component of so many traditional contemplative practices: It teaches practitioners to perceive a direct, tangible correlate of their own mental focus. That is, by learning to sense subtle body sensations, practitioners learn to work with and feel the mind’s attentional focus. Work by our group and others has shown that this direct perceptual processing engaged by somatic awareness practice (e.g., directing attention to sensations in the hands or the soles of the feet) can bring about rapid changes in brain dynamics that may buffer various forms of mental distress. Throughout, evidence is presented that this ability to regulate brain dynamics by noticing and paying attention to subtle somatic feelings that arise during practice may offer a palpable antidote to common everyday experiences of stress, distraction, and fatigue.

Theme: Practice
scientists, and contemplatives engaged in helping our children deepen their capacities for care and compassion. Our program, entitled “A Call to Care,” presents a model for enhancing ethical sensitivity through integrating the best practices from existing SEL and contemplative-based programs with a developmentally sensitive approach to nurturing our capacity for care. By developing our natural capacities for caring, we believe we can embed ethics deeply enough so that it animates all human interaction.

**Secular Ethics and Human Values: A Transformative Approach (Venerable Tenzin Priyadarshi)**

The Dalai Lama Center for Ethics and Transformative Values at the Massachusetts Institute of Technology is a collaborative and nonpartisan think tank dedicated to inquiry, dialogue, and education on the ethical and humane dimensions of life. The Center places a strong focus on advancing pedagogical methods and utilizing new technologies and forms of media to engage a broad spectrum of individuals in a self-exploration of ethics, values, and leadership. Since 2009, The Center’s programs and activities have reached eight countries with participants, including children from four years old into adolescence, university students, scientists and researchers, business executives, civil servants, law enforcement professionals, and others.

The Center’s philosophy includes the belief that progress on current global challenges, from climate change to poverty and inequality, will require a fundamental shift and realignment of values. In pursuit of this goal, our programs strive to merge traditionally disparate domains of science, engineering, and technology with probing discussions on ethics and values.

**Theme: Education**

**A Buddhist Contribution to Neurophenomenology**

Andrew Olendzki, Barre Center for Buddhist Studies

The project of mapping the brain is making great progress in our time, but mapping the mind, in contrast, is still in its infancy. All people have an inner life, but the systematic exploration of this terrain, in a manner that can be useful to the scientific investigation of consciousness, is not well developed. Buddhists have been investigating the mind directly, systematically, and empirically, for a long time and have “published” detailed accounts of their research in the classical texts of the Buddhist tradition. This material can be made available to the project of neurophenomenology, wherein specific mind states are associated with specific brain states. The Buddhist tradition offers a universal scaffolding, derived from the fact that we all have six sense bases and five interdependent functions of body and mind upon which individual experience is constructed. Its meditation texts use this schema to train the practitioner to look at their own minds in very specific ways, accessing a phenomenological intelligence that allows for insight and transformation. This presentation offers a survey of this model from an experiential and phenomenological perspective, and suggests ways that training subjects to highlight particular aspects of experience might contribute significantly to current and future research.

**Theme: Basic Science**
Concurrent Session 1

3:00 PM – 3:45 PM*

**BERKELEY**

**Dream Neurophenomenology and Contemplative Sciences**

*Elizaveta Solomonova, University of Montreal*

In recent years, significant advances have been made in the cognitive neuroscience of conscious experiences, including contemplative states, sleep, and dreaming. A wealth of evidence suggests that contemplative practices influence processes of attention, emotion regulation, and brain plasticity. On the other hand, sleep and dreaming have been consistently linked to memory, emotion regulation, and brain plasticity. On a phenomenological level, important qualitative similarities and differences have been noted between some dreaming states and contemplative states, and in certain traditions, dreaming is seen as a kind of contemplative practice in itself. This presentation will examine contemplative and dream studies as complementary methodologies and practices, both aimed at uncovering the depth and breadth of conscious experience. Recent research on dreaming and contemplative neuroscience, as well as phenomenology of the qualities characterizing the two states, will be discussed. A view of dreaming as a contemplative and performative activity will be proposed.

**Authors:** E Solomonova, T Nielsen, Sha XW

**Theme:** Basic Science

---

**PRACTICE**

3:00 PM – 3:20 PM

**GLOUCESTER**

**The Four Elements**

*Pir Zia Inayat Khan, Sufi Order International*

In the Sufi tradition, the four elements (earth, water, fire, and air) are “witnesses of being” (shahid al-wujud) that together represent the presence of the macrocosm within the microcosm that is human body/mind. The quest for wholeness involves bringing these four into balance. The Elemental Purification Breaths of Hazrat Inayat Khan serve this purpose.

---

3:30 PM – 3:50 PM

**GLOUCESTER**

**Lectio Divina and Mary Oliver’s “The Summer Day”**

*Linda-Susan Beard, Bryn Mawr College*

Lectio is an ancient practice of Western monasticism that invites one to read slowly and deliberately, savoring the word and allowing it to speak to one’s center. One begins with a brief passage (from a sacred scripture or other text) and a foundational trust that a word or short phrase from the text is speaking directly to one’s life experience. Letting go of the temptation to “read” for comprehension, one approaches the text with a radical openness to whatever it may reveal. Once the word has chosen you, it becomes a mantra. We will adapt this practice to a poem by Mary Oliver. For the last five minutes of the session, participants will be invited to journal about their experience.

---

**CLARENDON**

**Stages of Mind Training in Dzogchen: Contemplative and Neurocognitive Perspectives**

*Dusana Dorjee, Centre for Mindfulness Research and Practice, Bangor University*

This presentation will outline the progression of mind training in the Tibetan Buddhist tradition of Dzogchen, from the ordinary distracted mind to the highest levels of mental balance, in terms of changes at four basic levels: motivation, attention, emotion, and consciousness. Within this framework, we will discuss the
main markers of contemplative progress and possible neurocognitive indices of these changes, taking into the account the differences between Buddhist and Western conceptualizations of the mind. Emphasis will be given to the importance of understanding the full path of contemplative development across traditions; reducing misunderstandings about outcomes of secular and contemplative practices; and correspondingly, ways to research them.

Authors: D Dorjee, P Dorjee Khenchen
Theme: Basic Science, Philosophy/Humanities

DARTMOUTH
Being Mindful About Teaching Mindfulness: Evaluating the Consequences of Peer Instruction
Philip Leger, McGill University, Peer Support Network
Ishan Walpola, McGill University, Montreal Neurological Institute

The student-driven promotion of mental wellness across university campuses includes policies restructuring mental health services, conferences encouraging mental wellness, and peers offering one-on-one and group support. This paper will explore the theoretical implications of including mindfulness in these initiatives. Mindfulness-based stress reduction has been efficacious for reducing stress, anxiety, and depression, and for increasing empathy and self-compassion. Recent evidence, however, calls into question the unequivocal benefits of mindfulness. The literature to date has involved either trained professionals or the recordings of trained professionals. What are the differences and perhaps even negative consequences that may arise from recently introduced practitioners promoting and teaching mindfulness? We would like to call attention to the need for a balanced appraisal of such efforts. Are there possible harms in allowing this student-led introduction without a consideration of its greater context (i.e., spiritual, cultural, historical)? Can mental-health groups advocate mindfulness absent formal training?

Authors: P Leger, I Walpola
Theme: Education

EXETER
Clinical Applications of Meditation for War-Related Mental Health Consequences and Co-Occurring Conditions
Marina Khusid, Deployment Health Clinical Center/University of Illinois at Chicago

The prevalence of post-deployment mental health conditions is high. Deployment to a war zone is associated with a three-fold increase in new-onset posttraumatic stress disorder (PTSD), often co-occurring with depression, anxiety, substance use disorders, sleep disturbance, and chronic pain and resulting in high long-term personal and societal costs. High prevalence, combined with the complex chronic debilitating nature of post-deployment mental health conditions, makes the development of cost-effective self-management modalities of great public health importance. Meditation is safe, affordable, portable, and easy to learn and teach; the increasing evidence of its effectiveness as an adjunct to standard care positions it as a cost-effective self-management approach. This presentation will discuss neuroimaging and clinical studies, potential mechanisms, level of evidence, and clinical recommendations regarding the use of meditation as a self-care adjunct to standard care of depression, PTSD, anxiety, substance-use disorders, and commonly co-occurring sleep disturbance and chronic pain.

Authors: M Khusid
Theme: Clinical Science

FAIRFIELD
Resilience and Compassion
Willa Miller, Harvard Divinity School

This paper discusses the relationship between psychological resilience and compassion. It will begin by looking at a particular set of techniques, drawn from the Tibetan Buddhist mind-training (lojong) tradition, in which the stresses, adversity, and suffering of the subject are the initial focus that eventually inspires empathetic identification with others. This type of compassion meditation training has been successfully implemented in several scientific studies in recent years. This kind of Buddhist meditation training brings up the possibility that compassion (empathetic identification with another and the wish to act on their behalf) and psychological resilience (a growing tendency to cope effectively with stress and adversity) are linked traits. This paper will consider the relationship between these two traits, and discuss why psychological resilience may be a critical component of compassion, and vice versa.

Authors: WB Miller
Theme: Philosophy/Humanities

HARVARD
The Five Elements and the Body-Mind as an Instrument of Knowledge for Holistic Wisdom: Yogadance Therapy™
Soraya Franco, Asanarte

Yogadance Therapy™ is a technique based on the five elements theory. This research focuses on the efforts to find an alternative therapeutic art form, derived from some of the oldest postural patterns and movements of world cultural heritage, creating a new philosophy of performance that allows for the transformation and transmission of energy through kinesthetic expressions of wellness and spiritual comprehensiveness. Yogadance Therapy™ is a method based on the systematic application of yoga principles in the art of dance, combining a movement-oriented sequence of asanas (postural patterns), purification techniques, and training inspired in three world dance traditions: Indian classical dance, ballet, and contemporary dance. The research is based on a movement-oriented awareness art therapy—an integrative art form and discipline that combines yoga dance and philosophy, including three complementing and purifying practices for the body and mind.

Authors: S Franco
Theme: Arts

MAINE
Meditation, Ecology, and Subjectivity: Performing Entangled Selves
Antonio Carvalho, University of Exeter

The main goal of this presentation is to explore the entanglements between technologies of the self and ecology. I am particularly interested in the ways in which
NEW HAMPSHIRE

Spiritual Well-Being in Historical Perspective
Francis Mckay, University of Chicago

Over the past 20 years, there has been a growing interest in economic and psychological studies of happiness through the concept of “subjective well-being.” Contemplative studies can also be situated within this history, insofar as it is indebted to mindfulness studies, Buddhist modernism, and thus the twin goals of minimizing suffering and enhancing well-being. Contemplative studies, however, has yet to clarify its position in relation to the history of subjective well-being research. In this paper, I will, therefore, provide a history of research on subjective well-being, showing how the contemporary field of contemplative studies relates to that history. In doing so, I delineate a subset of subjective well-being, what I call “spiritual well-being,” and highlight the extent to which the contemplative approach is most suited to cultivating this kind of well-being.

Authors: F Mckay
Theme: Philosophy/Humanities

MIT

Karma-Yoga at Work: A Mindful Alternative to Modern Management
Woodrie Burich, The Integration Group
Rashmi Prasad, Business Administration, University of Alaska Anchorage

Common experience tells us that our working lives produce mental states that are far from mindful. Researchers and theorists have long criticized dominant managerial practices for their negative impact on individual well-being. Contemplative practices stemming from religious and philosophical traditions have provided individuals interpretive frameworks to attain empowerment and mindfulness in the midst of social and organizational structures that are hierarchical and rigid. We present Karma-Yoga as a framework that can be adapted to modern work environments in order to manage stressors and produce more mindful mental states. We will also provide results of case studies and field application of Karma-Yoga practices to various high-stress occupations. Active participation is encouraged as we discuss challenges in implementing these practices that often conflict with long-standing managerial theory and practice. A short exercise is included to assess applicability of Karma-Yoga practices to the work environments of audience participants.

Authors: R Prasad, W Burich
Theme: Other

ORLEANS

Half Empty: Measuring Indicators of Emptiness Awareness Through Contemplative Practice
MacAndrew Jack, Graduate School of Psychology, Naropa University
Abigail Lindemann, University of Wisconsin, Madison

Traditional Mahayana Buddhist teachings emphasize the importance of understanding emptiness — the absence of independent substantiality of phenomena — through contemplative study and practice. Contemplative practices are becoming more widely integrated into the fields of education and clinical training. While self-report methodologies for assessing mindfulness have allowed researchers to quantify some of the changes that come with mindfulness and meditation practice, the field of contemplative studies can further benefit from measures sensitive to the subtle experiences that come with ongoing meditation and mindfulness practice, including those associated with the realization of emptiness. This paper presents a new measure, the Contemplative Emptiness Scale, including reliability, validity, factor structure, and psychometric data from a six-year study of experienced meditators. This measure allows researchers to study important expressions of emptiness experience, including awareness of self-clinging and compassionate engagement — qualities especially relevant to contemplative education and to the helping professions — with profound implications for contemplative studies.

Authors: M Jack, A Lindemann, T Ekstrom
Theme: Basic Science, Practice

PROVINCETOWN

A Randomized Controlled Trial of a Mindfulness-Based Intervention for Obesity: Impact on Stress Physiology, Metabolic Health, and Gene Expression

Jennifer Daubenmier, University of California, San Francisco
Elissa Epel, University of California, San Francisco
Frederick Hecht, University of California, San Francisco

We will present an overview of an NIH-NC- CAM P01 center research program rigorously designed to examine the effects of a mindfulness-enhanced weight loss program in obese adults. We randomized 194 men and women to a diet-exercise program with or without mindfulness-based eating and stress management components. Both arms received 17 group sessions over 22 weeks, and were followed for one and a half years from intervention initiation. We examined autonomic nervous system activity in response to social evaluative threat. We also examined long-term changes in metabolic health outcomes (including weight, insulin resistance, and atherogenic lipid profiles). Finally, we examined changes in gene expression in adipose tissue, with a focus on inflammatory status. We conclude that mindfulness enhancements to diet-exercise programs may improve long-term metabolic health in obese adults.

Authors: J Daubenmier, E Epel, FM Hecht
Theme: Clinical Science
Mindfulness, Compassion, and the Therapeutic Presence: Utilizing Contemplative Studies in Clinical Mental Health Counseling

Laura Copley, The Pennsylvania State University
Carly Scarton, The Pennsylvania State University
Justin Watts, The Pennsylvania State University

Contemplative studies are integrated into clinical mental health counseling in order to promote an individual’s natural drive towards self-exploration, self-awareness, and self-actualization. This panel comprises counseling professionals and current doctoral candidates who specialize in various mental health-related topics, including interpersonal trauma, identity and the holistic self, and substance-use treatment. Panelists will create an interactive and discussion-based program that emphasizes the importance of interdisciplinary collaboration and integration of contemplative practices in order to work therapeutically with their populations of interests and within their area of specialty. The panel will conclude with addressing why this collaboration and integration is of fundamental importance in the counseling field.

Authors: LA Copley, C Scarton, J Watts
Theme: Clinical Science, Practice

Does Mindfulness Meditation Employ Distinct Brain Mechanisms From Placebo-Related Analgesia?

Fadel Zeidan, Wake Forest School of Medicine

Growing evidence reveals that mindfulness meditation significantly reduces pain responses in experimental and clinical settings. Recent neurobiological findings confirm that the cognitive state of mindfulness significantly modifies sensory, cognitive, and affective dimensions of noxious processing. However, there are likely nonspecific effects associated with mindfulness meditation-related pain relief that are also consistent with placebo-related responses. For instance, reports of pain relief during meditation may be associated with subjects’ expectation of analgesia related to the health-promoting reputation of meditation, facilitator attention, report biases, and conditioning/extinction processes. With respect to the recent interest in meditation and the clinical utility of mindfulness-based mental training, it is important to determine if the pain-relieving effects of mindfulness meditation employ distinct brain mechanisms from those engaged by the placebo response. This presentation will disentangle and identify the neural mechanisms of action associated with mindfulness meditation-related pain relief as compared to placebo-anaesthesia and sham mindfulness meditation.

Authors: F Zeidan
Theme: Basic Science

Karuna and Critical Theory
Bradley Lint, Mansfield University

For the last several decades, much of the study of literature has involved critical perspectives based on class, race, gender, and sexuality, as well as applications of theory in postcolonial studies, psychoanalysis, deconstruction, performance studies, and postmodernism. It is not uncommon for critics to use these and other tools to demonstrate how texts of literature are ideologically flawed or conflicted. This presentation explores the normative underpinnings of the critical endeavor itself and postulates that criticism might have as its ultimate project karuna, or compassion: Through multiple critical lenses, we can come to understand the suffering of others who inhabit and interpret fictional worlds, and — by focusing on threads of compassion — transcend subject positions to help alleviate our own suffering and the suffering of others. The object here is not to criticize literature to death, but rather love it to life. Implications for the practice of meta as well as mindfulness techniques for enhancing appreciation of literature will also be examined.

Authors: B Lint
Theme: Philosophy/Humanities
(OEF) and Iraq (OIF), utilizing mindfulness and self-compassion meditation (Mindfulness-Based Exposure Therapy, or MBET). PTSD patients (42 OEF/OIF veterans) were assigned to either MBET or a comparison group therapy. MBET showed significantly greater retention than comparison therapy; PTSD symptoms improved following MBET in completer and intent-to-treat analysis, but not in comparison therapy. Pre-post neuroimaging (3T fMRI functional connectivity, emotion regulation paradigms) in 28 of these PTSD patients found that following MBET, patients showed decreased amygdala and basal ganglia (caudate globus pallidus) reactivity to negative emotion induction and increased amygdala functional connectivity to rostral and dorsal anterior cingulate cortex. A PTSD intervention, including mindfulness and self-compassion meditation, appears well tolerated by OEF/OIF veterans, and provides clinically meaningful improvement in PTSD symptoms. fMRI neuroimaging suggest emotional neurocircuitry that may accompany clinical change.

Authors: AP King, SR Block, N Giardino, SAM Rauch, TK Favorite, I Liberzon
Theme: Clinical Science

VINEYARD
A Neurocognitive Model for Internal Time
Marc Howard, Center for Memory and Brain

In our conventional experience, we experience ourselves as positioned in the present between an ever-receding past and an ever advancing present. The phenomenology of internal time has occupied sages and philosophers for centuries; advanced practitioners are said to experience the flow of time in a radically different way. From a neuroscientific perspective, our internal time line represents a significant computational challenge. How does our brain manage to construct a time line of past events, which are no longer present in the environment, and future events, which have not yet come to pass? To facilitate dialogue, we review a recent neurocognitive hypothesis for how an internal time line could be constructed. We compare the hypothesis to neurophysiological data from a variety of brain regions, and behavioral findings from a variety of fields of cognitive psychology.

Authors: MW Howard
Theme: Basic Science

WELLESLEY
Brain-Network Reconfiguration and Perceptual Decoupling During Rhythm Induced Trance
Michael Hove, Harvard Medical School

Shamans often listen to rhythmic drumming to induce trance states. Using fMRI, we examined the brain networks associated with trance. Experienced shamanic practitioners listened to rhythmic drumming and entered a trance state or remained in a non-trance state. Trance was associated with stronger network hubs (i.e., greater centrality) in the posterior cingulate cortex (PCC), anterior cingulate cortex (ACC), and left insula/operculum. The PCC region (a “default network” hub involved in internally oriented states) was coactive with ACC and insula (key “salience network” regions involved in amplifying relevant neural streams). This coactivation suggests that an internally oriented neural stream is amplified by the salience network during trance. Additionally, during trance the brain stem and auditory cortex were less connected, suggesting perceptual decoupling (i.e., suppression of the repetitive drumming). In sum, coactive default and salience networks and perceptual decoupling could promote an extended internal train of thought for integration and insight.

Authors: MJ Hove, J Stelzer, T Nierhaus, S Thiel, C Gundlach, DS Margulies, KRA Van Dijk, R Turner, PE Keller, B Merker
Theme: Basic Science

YARMOUTH
Ideals of Human Being in Contemplative Philosophy and in U.S. Law
Kris Weller, Gettysburg College

This presentation will bring the visions of human being promoted through the Mind & Life Institute and in various writings of the Dalai Lama into conversation with the ideals of human being promoted in U.S. law. Western philosophical traditions emphasizing human individuality and autonomy merged with chattel slavery during the formative years of the United States to produce an aspirational legal human ideal characterized by control of and power over
others, including other humans, all animals, and the natural environment. Although some complementarity exists between U.S. legal and contemplative perspectives on self-development, important conflicts exist regarding ethical responsibility toward the other. This paper will outline convergences and conflicts between the values of Tibetan Buddhist contemplative traditions and those of U.S. law, and discuss academic jurisprudential projects like Emory University’s Vulnerability and the Human Condition Initiative that may prove synergistic with the goals of the Mind & Life Institute.

Authors: K Weller
Theme: Other

**DOUBLE SESSION**

3:00 PM – 4:45 PM

**SALON A - B**

Innovations in Mindfulness for Educators: Complementary Approaches and Outcomes

Mark Greenberg, Pennsylvania State University

Alexis Harris, Pennsylvania State University

Patricia Jennings, University of Virginia Curry School of Education

Robert Roesser, Portland State University

Kimberly Schonert-Reichl, University of British Columbia

There has been a steady increase in interest in utilizing contemplative practice to improve teaching and learning in schools. At the first International Symposium for Contemplative Studies meeting in 2012, a panel presented preliminary findings from two teacher programs. The current panel will provide a research and practice update on innovative approaches for promoting mindfulness and compassion in educators, and a forum for beginning to discuss an evolution towards multilevel interventions in schools that include programs for both educators and students. Three separate research labs will present new findings from three different programs and approaches — the CARE and CALM programs for teachers, and the M-Power Teacher Program — plus the MindUp Program for students.

Authors: M Greenberg (chair)

P Jennings, J Brown, J Frank, M Greenberg (Presentation #1)

A Harris, R Abenavoli, D Katz, P Jennings, M Greenberg (Presentation #2)

R Roesser, A Mashburn, C Taylor, J Harrison, C Pinela, M Bahan, R Dicker, R Yelverton, E Tremaine, J Sorenson, M Cullen, M Lawlor (Presentation #3)

K Schonert-Reichl (Discussant)

Theme: Education

**DOUBLE SESSION**

3:00 PM – 4:45 PM

**SALON C - D**

Looking Back to Move Forward: Exploring Short- and Long-Term (20-year) Impacts of Early Exposure (Elementary School) to Mindful-Based Learning (MBL)

Julianne Cheek, Østfold University College, Norway

Jon Kabat-Zinn, University of Massachusetts Medical School

David Lipschitz, University of Utah School of Medicine

Yoshio Nakamura, Pain Research Center, University of Utah

David Vago, Harvard Medical School

Interest in, and enthusiasm for, implementing mindfulness-based curricula in school settings has been growing rapidly over the last decade. Research has begun to document the critical importance of social and emotional skills for student achievement and how these skills can be effectively nurtured through mindfulness-based skills training. In the mid 1990s, a forward-thinking teacher implemented a curriculum with mindfulness-based learning (MBL) in her grade-four and grade-five classrooms. A team of researchers has been studying this population to investigate potential short- and long-term impacts of early exposure (elementary school) to MBL. The preliminary results of this retrospective multiple-methods study will be presented and discussed. The aims are to explore: (1) the potential long-term impacts of MBL on indicators of health, well-being, cognitive performance, and demographics; (2) the short-term qualitative experience of such a program; and (3) the potential of multiple-and mixed-methods research approaches for helping to advance the field of contemplative studies.

Authors: D Vago, J Kabat-Zinn, Y Nakamura, D Lipschitz, J Cheek

Theme: Education

**DOUBLE SESSION**

3:00 PM – 4:45 PM

**SALON E**

Are We Ready to Investigate Non-Dual Awareness?

Jim Austin, University of Colorado Health Sciences Center, Denver

John Dunne, Department of Religion, Emory University

Eric Garland, College of Social Work and Huntsman Cancer Institute, University of Utah

Zoran Josipovic, Department of Psychology, New York University

Yoshio Nakamura, Pain Research Center, University of Utah

Non-dual awareness (NDA) has been identified as an important aspect of spiritual awakenings, from contemplative trainings practiced in both traditional wisdom traditions and in emerging contemporary “Dharma” teachings (such as mindfulness-based stress reduction and mindfulness-oriented recovery enhancement). Although NDA itself may not necessarily be an ultimate goal or destination, attaining NDA may signify an important landmark for one’s contemplative development. The purpose of this interdisciplinary panel is to explore the merit of investigating NDA in the context of emerging interdisciplinary contemplative studies. The panel will consider how best to investigate NDA in empirically tractable ways, with four presentations by an interdisciplinary panel consisting of a research psychologist, a Buddhist scholar and contemplative, a neuroscientist, and a translational contemplative clinical scientist. In the end, the panel will open the discussion to the audience, with the hope of identifying other outstanding issues for a better understanding of NDA in contemporary contemplative practice.

Authors: Y Nakamura, J Dunne, Z Josipovic, E Garland

Theme: Basic Science, Clinical Science, Philosophy/Humanities
Heartfulness as Mindfulness: Affectivity and Perspective in Abrahamic and Dharmic Traditions

Linda-Susan Beard, Bryn Mawr College
Andrew Dreitcer, Claremont School of Theology
Brent Field, Princeton University
John Makransky, Boston College
Rabbi Or Rose, The Center for Global Judaism
Michael Spezio, Scripps College

Current theories of mindfulness (Pali: sati) emphasize attention, emotional regulation, and meta-awareness. This interpretation de-emphasizes an original association of sati with remembrance in relation to cultivating virtue. Recovering remembrance reconnects mindfulness with narrative traditions of loving virtue. In practice, this occurs through cultivating both (1) affective awareness of the source of love, or ultimate reality; and (2) mimesis/imitation of exemplars of loving virtue. The concept of “heartfulness as mindfulness” helps express this affective remembrance and presents new opportunities for greater sharing between Dharmic and Abrahamic contemplative traditions, while motivating cognitive neuroscience to apply information processing models to the study of meaning. The panel will explore these themes from perspectives of Islam, Judaism, Christianity, and Bhakti Yoga, inviting critical conversations with Linda-Susan Beard (Emmanuel Monastery, Bryn Mawr), John Makransky (Buddhism, Boston College), and those in attendance. Behavioral and neuroimaging studies will support conceptual proposals.

Authors: A Dreitcer, B Field, ML Spezio, J Makransky, L-S Beard
Theme: Philosophy/Humanities

Movement-Based Embodied Contemplative Practices: Current State-of-the-Art and Future Research Directions

Dav Clark, University of California Berkeley
Eva Henje Blom, University of California, San Francisco
Catherine Kerr, Translational Neuroscience, Contemplative Studies Initiative; Department of Family Medicine, Brown University
Philip Nessel, Alexander Technique International
Laura Schmalzl, University of California, San Diego
Peter Wayne, Harvard Medical School

Compared to the extensive body of work on mindfulness-based practices, far fewer scientific studies have examined the mechanisms underlying movement-based contemplative practices such as yoga or Qigong. One likely reason is the inherent challenge of dealing with their multifaceted nature, typically involving specific movement sequences, specialized use of the breath, and modulation of attention. Movement-based practices have, however, been shown to alleviate the symptoms of various clinical conditions, and elicit measurable changes in physiological stress markers, cognitive and motor functioning, as well as emotional states in healthy populations. An important challenge for contemplative scientists, therefore, is to advance our understanding of the mechanisms underlying these complex practices. This panel presentation will focus on the current state-of-the-art of research on movement-based practices including yoga, tai chi, the Feldenkrais Method and the Alexander Technique, and outline important avenues for future research within the field. This session will be moderated by Laura Schmalzl and Catherine Kerr.

Authors: U Agrawal, D Clark, E Henje Blom, C Kerr, S Nayak, P Nessel, L Schmalzl, P Wayne
Theme: Basic Science

Being in the Body: Contemplative Practice, Interceptive Awareness, and Health

Jennifer Daubenmier, University of California, San Francisco
Norman Farb, Department of Psychology, University of Toronto
Anne Klein, Rice University
Wolf Mehlng, School of Medicine University of California, San Francisco
Martin Paulus, University of California, San Diego
Cynthia Price, University of Washington

Interoception, awareness of one’s body, informs our sense of being in the world. Over time, we form associations between experiences and embodied responses, creating a set of expected body responses. While these expectations allow for rapid, proactive responses to life’s challenges, they can also mask unexpected embodied feelings. Meditation often contains an interceptive focus such as breath monitoring. Cultivating interoception may be a key mechanism by which contemplative practices disrupt expectations to foster greater awareness of embodied feelings and enhance well-being. We are beginning to understand how interoception occurs in the brain, how interoceptive awareness is cultivated, and how such awareness influences well-being. This symposium will present one such scientific model of interoception and contemplative practice. Clinical examples will follow, featuring research findings for addiction, trauma, obesity, and chronic pain. The presentations will conclude with a review of how different contemplative practices view interoception, and an open discussion period.

Authors: JJ Daubenmier, NAS Farb, TGard, CE Kerr, AC Klein, W Mehlng, MP Paulus, CJ Price
Theme: Clinical Science
Debate as a Method of Contemplation: Deep Engagement with Science Through Tibetan Buddhist Debate

Michael Romano, Emory-Tibet Science Initiative

Carol Worthman, Emory University

The Emory-Tibet Science Initiative, in partnership with the Dalai Lama and the Library of Tibetan Works and Archives, is developing and implementing a comprehensive science curriculum for Tibetan monastics, and initiating a range of mutually beneficial exchanges, discoveries, and knowledge. Science and Buddhism offer two distinct methods of inquiry, and a critical challenge in this exchange is how to find compatibility in what constitutes evidence and what makes an argument valid. Scientific inquiry is grounded in concepts like falsifiability, testability, validation, and replication, focusing on the “objective.” Buddhist inquiry is grounded in practices of contemplation, meditation, and debate, focusing on the “subjective.” Tibetan Buddhist debate offers a profoundly embodied vehicle for rigorous exploration of these distinct traditions through analysis of specific topics, allowing Tibetan monastics to deeply engage the science curriculum, and Western students to practice contemplative epistemological stances. We discuss our experience using this technique for learning and inquiry.

Authors: MR Romano, CM Worthman, ETSI Neuroscience Team

Theme: Basic Science, Practice

Improving Attentional Functions Through Mindfulness Practice

Peter Malinowski, Liverpool John Moores University

An ever-growing number of studies provide evidence for the benefits of mindfulness-based interventions within a variety of clinical and nonclinical contexts. For the field to develop and solidify, it will be essential to go beyond demonstrating clinical effectiveness and to develop an evidence-based understanding of the psychological, physiological, and neural processes that underpin the reported benefits. In our own research, we thus aim to thoroughly investigate individual components of typical mindfulness-based interventions and to pinpoint the underlying mechanisms that facilitate such positive outcomes. Towards this end, we are investigating functional and neural changes associated with attentional functions because the training and refinement of attention is at the heart of many forms of mindfulness practice. Primarily focusing on electrophysiological methodologies, data from recent randomized controlled studies will be presented. These results indicate that regular engagement with a brief mindful breathing practice for periods as short as three weeks leads to significant improvements in the neural processes underpinning different aspects of attention.

Authors: P Malinowski

Theme: Basic Science, Practice
teachers with the institutional support they need to carry out this work; (2) providing students with supports necessary in the development of compassion (analogous to the sangha concept in Buddhism); (3) assessing the effectiveness of compassion training; (4) assessing possible risks of compassion training; (5) incorporating the “wisdom” aspects of compassion into secular programs; and (6) facilitating the development of equanimity and gratitude in the absence of Buddhist concepts. Each of these challenges will be explored.

Authors: WD Gitchel
Theme: Education

DARTMOUTH

Yoga and Mindfulness: Engaging the Undergraduate Learner
Debra Alvis, Division of Academic Enhancement, University of Georgia

Without meaning or purpose, students view higher education and the working world beyond as irrelevant and as overwhelming stressors. Our institutions address academic malaise by creating environments in which engagement can occur. This experiential paper proposes that beyond fostering stimulating environments, educators must teach students how to engage. Through tapping into neuroplasticity, mindfulness, and yoga, we can provide a technology for experiencing life engagement. With repeated practice of this technology, the brain’s hard wiring changes, enhancing the ability to focus and direct attention; and the endocrine system increases secretion of the relational hormone, elevating mood and, in turn, the ability to see possibilities. This presentation includes a brief research overview, an experience of a 10-minute class starter, excerpts from student journals, and discussion. Handouts will further facilitate classroom application.

Authors: D Alvis
Theme: Education

EXETER

Remembering What We Need to Remember: Extending the Psychotherapeutic Application of Mindfulness
Kathleen Gregory, School of Public Health, La Trobe University

Mindfulness within Tibetan Buddhism is equated with the notion of “remembrance,” and distraction as its opposite is equated with “forgetfulness.” Psychologically, it can be said that suffering arises because the tendency to “remember the things we should forget and forget the things we should remember” has become habituated. Within psychotherapy, mindfulness can be utilized from this perspective to help orient a person to healthy and helpful “remembrances” targeted to their specific circumstances. Clinical examples will be provided demonstrating that when mindfulness as “remembrance” is engaged this way, people feel both encouraged and capable to work with difficult circumstances and experiences. Shifting the focus from the formal practice setting to mindfulness as a cognitive function in the service of “states of mind,” this paper contributes to current discussions concerned with the definition of mindfulness, including reference to the Buddhist doctrinal context, and aims to add to contemporary understandings of “psychological health.”

Authors: KL Gregory
Theme: Clinical Science

FAIRFIELD

Mapping the Mind: A Model Based on Theravada Buddhist Texts and Practices
Piyal Walpola, Buddhism, Psychology and Mental Health Program, University of Toronto

We propose a functional model based on Theravada Buddhist texts and practices to show how the mind works in relation to our senses, and how we perceive the external world. Our model suggests that the mind acts as a common internal sense organ, receiving all sensory data from the five external senses. It shows how contact (when sensation becomes available to access consciousness) plays a central role in generation and the continual reconstitution of feelings, perceptions, and thoughts expressed as emotions. The model shows how previous memories influence our thoughts to create an illusory experience of the present moment, and how we cling to them. We also propose a cognitive series using our model with some relevant neuroanatomical locations superimposed. We believe this model could function as a basic conceptual map of the mind by integrating philosophy, psychology, and neuroscience, and also facilitating the practice of mindfulness meditation itself.

Authors: PL Walpola, DY Walpola, T Toneatto
Theme: Basic Science, Philosophy/Humanities

HARVARD

Mindfully Walking the Path of Creating Conditions for Compassion to Flourish in Health and Human Service Organizations
Dawn MacDonald, Catholic Health Corporation of Manitoba
Micheline St-Hilaire, Catholic Health Corporation of Manitoba

The purpose of this interactive workshop is to introduce a contemporary contemplative pathway designed as an initial step to organizational change and development. In an effort to begin to re-found spirituality as a source of health and healing intrapersonally, interpersonally, and organizationally, a documentary film was created as a catalyst to courageous conversations about compassion. In this workshop, we will screen a portion of This Film Is About Compassion, and engage in its accompanying process, which asks us to reflect on: (1) What is compassion? What isn’t?; (2) How do we know compassion is present/absent?; and (3) What can be done at individual/organizational levels to nurture and strengthen this human capacity and need? This workshop is designed to support and inspire all those who wish to begin creating conditions for further compassion and wisdom in medicine, health care, and the larger society.

Authors: D MacDonald, M St-Hilaire
Theme: Other, Practice
MAINE

Merleau-Ponty Reads Francisco Varela
Eduardo Velasquez, Washington and Lee University

Francisco Varela and his colleagues proffer a provoking conclusion in their groundbreaking *The Embodied Mind*. By relying almost exclusively on introspection, Western philosophy from Plato to Merleau-Ponty is at best proto-cognitive scientific. Oddly enough, the movement out of philosophy and into neuroscience is carried out by mindfulness and meditation. Oddly because forms of discursive rational introspection would seem to share affinities with empirical, experimental, and quantifiable neurosciences, that would not be shared by a silent gaze of emptiness and nondiscursive awareness. The raft from philosophy to the neurosciences is Varela’s subtle and deft reinterpretation of Western philosophy. According to Varela et al., Eastern philosophy is hospitable to the sciences of brain and behavior, which is to say that philosophy qua philosophy is alive and well. Without it, there is no contemplative inquiry. We coax Varela’s reliance on a contemplative, social, and political philosophy by imagining Merleau-Ponty responding to Varela’s work.

Authors: E Velasquez
Theme: Philosophy/Humanities

NEW HAMPSHIRE

Towards an Applied Multiple Consciousness Theory of Mindfulness: With Special Reference to the Won-Buddhist Method
Grace Song, Youngsan University of Seon Studies

This paper explores the Won-Buddhist approach to mindfulness that encompasses several layers of consciousness: the subconscious, the mind, and six sense faculties (preconsciousness). These layers function simultaneously but play distinctive roles depending on the external environment. The proper function of the six sense faculties leads to the weakening of negativity stored in the subconscious. This is accomplished by training the faculties to see, hear, and touch external objects as if making a gesture to Buddha. As such, the mind automatically engages in concentration through this function. The result of this method not only exemplifies mindfulness, but also the ability to react positively to negative circumstances that influence the mind. This method addresses the problem of relapse that often occurs in other mindfulness interventions. By creating a mindfulness training course that is integrated into a daily practice, there could be fewer cases of relapse for these participants compared to short-term workshop participants.

Authors: GJ Song
Theme: Philosophy/Humanities

ORLEANS

The Role of Empathy in Social Cognition
Alan Jurgens, University of Copenhagen

Social cognition theories explain how we understand others in social interactions. A new approach, interaction theory, focuses on the phenomenological and embodied nature of what it is like to connect to and understand others in social interaction. This theory incorporates traditional phenomenological approaches to understanding other minds, and it also gives significant status to the role of empathy. The theory draws heavily on the ideas found in the enactive theory of mind developed by Evan Thompson and Francisco Varela, which is strongly influenced by traditional Buddhist conceptions of the mind. My goal is to present a singular conception of empathy that draws together the phenomenological and Buddhist traditions in order to explain how our social interactions are as natural, fluid, and accurate as they typically are. In the end, I will discuss how empathy should also be thought of as a skill that can be developed through meditation.

Authors: A Jurgens
Theme: Philosophy/Humanities

MIT

The Growing Art and Science of Contemplative Management
Tara Healey, Mindfulness-Based Learning, Harvard Pilgrim Health Care
Jeremy Hunter, Peter F. Drucker School of Management, Claremont Graduate University
Christopher Lyddy, Case Western Reserve University

Mindfulness practices have become mainstream in many leading organizations, such as Google, Aetna, and the U.S. military. In stark contrast with the substantial knowledge guiding mindfulness practices in contemplative and clinical contexts, very little is known about mindfulness’s workplace integration and impacts. To catalyze similarly rigorous scholarship and standardized practices, this discussion will consider why and how individual workers and organizations may cultivate mindfulness. The session will begin with a multidisciplinary review of research indicating mindfulness’s impacts on workplace wellness and performance. Two experienced mindfulness trainers will then share their approach to, and experience with, mindfulness training in diverse organizations, including higher education and financial institutions. Discussion will conclude with thoughts on where the budding subfield of contemplative management is today, and how it can grow from both scientific and practical perspectives.

Authors: T Healey, J Hunter, C Lyddy
Theme: Other

PROVINCETOWN

Cultivating Emotional Balance (CEB): Training, Research, and Future
Eve Ekman, University of California Osher Center for Integrative Medicine
Paul Ekman, Paul Ekman Group
B. Alan Wallace, Santa Barbara Institute for Consciousness Studies

This panel presentation will bring the audience up to date on Cultivating Emotional Balance (CEB), a secular emotion regulation and meditation training designed by Drs. Paul Ekman and Alan Wallace at the request of His Holiness the Dalai Lama following the 2000 Mind and Life meeting on destructive emotions. CEB is a 42-hour training in Eastern contemplative and Western psychological concepts and skills aimed at promoting emotional awareness and genuine happiness. CEB was evaluated through a randomized control trial with innovative measures to capture improved
well-being and compassion. The panel will include Drs. Paul Ekman, Alan Wallace, and Eve Ekman. Ekman has joined Wallace in the annual teacher training for CEB since 2010. She will moderate the panel and present findings from her new CEB-based training for human-service care providers working with the most troubled youth in every county across the country. Audience questions are encouraged.

Authors: P Ekman, A Wallace, E Ekman
Theme: Basic Science, Education

REGIS

Leaning into Difference Through Contemplative Education: A Mindful Exploration of Power, Privilege, and Oppression

Deb Bopsie, Naropa University
Ugur Kocataskin, Naropa University
Regina Smith, Naropa University

“The single most pressing issue . . . in the 21st century is helping students learn to engage constructively with those who are not like themselves” (Coburn, 2005). How can we teach students to constructively engage with The Other? How do we inspire learners to move beyond their zones of comfort and privilege, and support them in mindfully attending to their habitual dissociation from suffering? And how do we teach in ways that expand the capacity to stay in relationships that have been the channel ground for historic misunderstanding and fear, guilt, and shame? This highly interactive workshop explores how a contemplative model supports constructive engagement with difference through the cultivation of present-moment, first-person inclusive awareness. This model posits that an embodied empirical inquiry into the dynamics of privilege, power, and oppression — as they arise in the here and now and within the framework of compassion for self and other — can transform how we navigate the terrain of difference.

Authors: D Bopsie, U Kocataskin, R Smith
Theme: Education

SALON H - I

Contemplative Technologies and Liberal Arts and Sciences

Morgan Harris, Social Media, Washington and Lee University
Sarah Helms, Washington and Lee University
Grace McGee, Washington and Lee University

What legitimizes contemplative inquiry in the liberal arts and sciences? Is propagation by technological means at odds with the humanizing purposes of close-knit teaching and learning communities? Do the peculiar benefits cultivated by contemplative communities in the liberal arts and sciences continue to serve alumni in their respective professions and leisure? A panel composed of undergraduate alumni employed by their alma mater, former students at various stages of career and family, and a teacher of contemplative inquiry share their answers. Students share the how and why of a cooperative contemplative curriculum, which doesn’t take place in the abstract but through a vibrant social network consisting of technologies like Google+, public “pages,” course-specific and private “communities,” YouTube, Blogger, Hangouts, and Google Drive, among others. Respecting disciplinary boundaries, institutional needs, and contingencies of trust, students from various disciplines and professions offer an example of a continuous contemplative inquiry through the gates of the ivory tower.

Authors: S Helms, K McGinnis, T Smith-Schoenwalder, M Harris, G Magee, E Velasquez
Theme: Education
SIMMONS
Yoga: A Contemplative Technique for Mental Well-Being

Alejandro Chaoul, Anderson Cancer Center
Sat Bir Khalsa, Brigham and Women’s Hospital
Elisa Kozasa, Hospital Israelita Albert Einstein
Sara Lazar, Massachusetts General Hospital

Yoga is an ancient mind-body discipline practiced in various forms in different Asian countries such as India and Tibet, with important contributions for contemporary society. The number of yoga practitioners in Western society is growing worldwide, in particular in the pursuit of mental well-being. Research shows that yoga techniques can improve emotional balance and strength, especially in vulnerable populations such as elders, cancer patients, and caregivers of the chronically ill. Both traditional texts and contemporary research suggest that there are physiological changes associated with the physical aspect of yoga (e.g., muscle stretches, breath regulation) as well as the mental/psychological components (e.g., relaxation and meditation). This session will highlight recent findings with neuroimaging, biomarkers, and psychological tests, and open a discussion of the contributions (or limitations) of using yoga as an intervention for well-being.

Authors: S Telles, EH Kozasa, A Chaoul, SW Lazar
Theme: Clinical Science

VERMONT
Teaching Mindfulness-Based Training in High-Stress Contexts

Elizabeth Stanley, Georgetown University

This presentation will present research about Mindfulness-Based Mind Fitness Training (MMFT®) within the context of modifying mindfulness-based training for environments characterized by extreme or prolonged stress and trauma. Drawing on our experience training troops before deployment to combat and others in high-stress occupations, it will examine how mindfulness training can be integrated with an understanding of the role of the autonomic nervous system in stress and trauma. In the high-stress context, the acute self-awareness of body sensations developed through mindfulness can lead to excessive activation of the autonomic nervous system; the possibility of these sensitivities is taken into account with a progression of exercises, including some unique to MMFT®, which differs significantly from other mindfulness-based training programs. The presentation will briefly outline the structure of the MMFT® course, and share some empirical evidence of its efficacy among troops in terms of cognitive performance and nervous system regulation. MMFT® has been the subject of four different department of defense neuroscience research studies.

Authors: E Stanley
Theme: Basic Science

VINEYARD
Novel Techniques and Applications for Neurophenomenology: Observing Experience to Understand the Mind and Understanding the Mind to Improve Experience

Juan Santoyo, Brown University, Contemplative Studies Initiative

The methodological program of neurophenomenology arose as an approach to understanding the relationship between neurophysiological activity and conscious experience. Since its inception, a growing research community has further cultivated this method with a focus on developing a rigorous and pragmatic science of consciousness. By drawing from the limitations and successes of existing neurophenomenological studies and a recent case study, I propose an innovative and replicable framework that utilizes the first-person methods of experienced contemplatives, grounded theory methodology, and real-time neurofeedback technologies to establish precise temporal constraints between the production and analysis of phenomena at the first-, second-, and third-person positions. Concrete examples for its application in developing an integrated science of mind and experience are presented. While this approach provides an invaluable tool for understanding consciousness, I conclude that at its current stage of development, the most fruitful application for neurophenomenology is in improving our understanding of mental illness and fostering the development of novel psychiatric treatments.

Authors: JF Santoyo, C Kerr
Theme: Basic Science

YARMOUTH
Exploring the Intersection of Contemplative Practices and Computer Technologies

Katie Derthick, Human Centered Design & Engineering

This presentation overviews a number of projects that are part of a larger research agenda focusing on the intersection of contemplative practices and technology use. Our overarching research goal is to understand how technology is currently being used by contemplative individuals and communities, which, we believe, is a step toward exploring a more balanced, middle-way approach to the use and design of technology in everyday life. We are taking a grounded theoretical approach to ethnographic study of an online Buddhist community and an in-person meditation center, informed by a human-computer interaction disciplinary perspective. The presentation will focus on a project exploring the practice of group meditation over video chat. We will discuss the experiential aspects of this practice, the roles it plays in individuals’ practices and in communities, its relationship to other types of meditation practice, and its effect on the lives of those engaging in it.

Authors: K Derthick
Theme: Other, Practice
Poster Session

5:00 PM – 7:00 PM

Posters are listed in order of poster # and will be arranged in Gloucester in numerical order. Missing numbers indicate intentionally unused poster boards.

<table>
<thead>
<tr>
<th>#</th>
<th>SESSION TITLE</th>
<th>AUTHORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Neurophysiological and Neurocognitive Mechanisms Underlying the Effects of Yoga-Based Practices: Towards a Comprehensive Theoretical Framework</td>
<td>L Schmalzl, C Powers, E Henje Blom</td>
</tr>
<tr>
<td>2</td>
<td>Mindfulness: A Meditational Approach to Overcoming Afflictive Emotions</td>
<td>AM Clasing</td>
</tr>
<tr>
<td>3</td>
<td>The Varieties of Self-Transcendent Experience</td>
<td>D Yaden, J Haidt, B Hözel, R Hood, A Newberg</td>
</tr>
<tr>
<td>5</td>
<td>Longitudinal Changes in Brain Structure after Eight Weeks of Training in Either Mindful Attention Meditation or Compassion Meditation</td>
<td>O Singleton, G Desbordes, LT Negi, TWW Pace, BA Wallace, CL Raison, EL Schwartz</td>
</tr>
<tr>
<td>6</td>
<td>The Effect of Tai Chi Training on Corticocerebral Coherence</td>
<td>U Agrawal, S Nayak, C Kerr</td>
</tr>
<tr>
<td>7</td>
<td>High-Amplitude electroencephalographic (EEG) Signals Arising during Non-Dual Meditation Involve Coherence Between Spatial-Separated Radial Dipoles</td>
<td>BA Field, B Eppinger, TC Ferree</td>
</tr>
<tr>
<td>8</td>
<td>Decreased Chaotic electroencephalograph (EEG) Signal During Mindfulness-Based Stress Reduction (MBSR) Meditation</td>
<td>JL Gao, JC Fan, RT Cheung, HH Sik, BS Huang, ZG Zhang, YS Hung, CQ Chang</td>
</tr>
<tr>
<td>9</td>
<td>Mindful Attention Modulates Immersion in Stressful Thoughts</td>
<td>S Fix, M Faust, S Johnson</td>
</tr>
<tr>
<td>10</td>
<td>Bringing the Mind Back: Brain Oscillations Associated with Refocusing Attention After a Mind Wandering Episode</td>
<td>NY Chan, XD Yan, O Singleton, SW Lazar</td>
</tr>
<tr>
<td>11</td>
<td>Functional Connectivity Between the Amygdala and Left Cerebellum Is Positively Correlated with Higher Anxiety Symptoms in Healthy Stressed Adults</td>
<td>KJ Devaney, EJ Levin, SW Michalka, ML Rosen, DC Somers</td>
</tr>
<tr>
<td>12</td>
<td>Experienced Meditators Display Altered Neural Activation in Cortical Attention Networks</td>
<td>JC Chou, JF Santoyo, Y Kang, H Roth, W Britton</td>
</tr>
<tr>
<td>13</td>
<td>University Meditation Course Cultivates Inhibitory Control and Emotional Awareness</td>
<td>D Cosme, S Wiens</td>
</tr>
<tr>
<td>14</td>
<td>Dispositional Mindfulness and Emotional Responding: A Multimethod Approach</td>
<td>M Przyrembel, T Singer</td>
</tr>
<tr>
<td>15</td>
<td>Investigating First-Person Experiences During Different Types of Meditation: Towards a Neurophenomenological Approach in Contemplative Studies</td>
<td>J Bagdasaryan, M Valderrama, K Lehongre, V Navarro, M Le Van Quyen</td>
</tr>
<tr>
<td>16</td>
<td>Neurophenomenal: From Experience to Self-Regulation of Brain Signals</td>
<td>C Lyddy, D Good</td>
</tr>
<tr>
<td>17</td>
<td>Selfless Esteem?: Testing If Mindfulness Inoculates Against Self-Esteem Threat</td>
<td>S Grégoire, L Lachance, L Richer, G Taylor</td>
</tr>
<tr>
<td>18</td>
<td>A Qualitative Study on the Perceived Effects of Meditation on Stress, Interpersonal Relations, and Decision Making at Work</td>
<td>V Droutman, SJ Read</td>
</tr>
<tr>
<td>19</td>
<td>Mindfulness May Reduce Risk Taking</td>
<td>S Pauen, S Bechtel</td>
</tr>
<tr>
<td>21</td>
<td>Emotional Management and Psychological Feeling of Well-Being in Practitioners of Progressive Self-Focus Meditation</td>
<td>C Araya, G Brito, Al Langer</td>
</tr>
<tr>
<td>23</td>
<td>A First-Person Investigation of Desire and Self</td>
<td>M Quintana</td>
</tr>
<tr>
<td>24</td>
<td>The Mindful Click Effect: Web-Based Real-Time Behavioral Monitoring of Mindfulness Practice</td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>SESSION TITLE</td>
<td>AUTHORS</td>
</tr>
<tr>
<td>----</td>
<td>-------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>25</td>
<td>The Impact of Meditation Training on Mind Wandering while Reading</td>
<td>AP Zanesco, BG King, KA MacLean, TL Jacobs, SR Aichele, BA Wallace, J Smallwood, JW Schooler, CD Saron</td>
</tr>
<tr>
<td>26</td>
<td>The Comparative Effects of LKM and Mindfulness Meditation</td>
<td>V Braun, A Falkenstein, J Edwards</td>
</tr>
<tr>
<td>27</td>
<td>Yoga Enhances Positive Psychological States in Young Adult Musicians</td>
<td>B Butzer, K Ahmed, SBS Khalsa</td>
</tr>
<tr>
<td>28</td>
<td>Possible Correlates of Skill at Mindfulness Meditation</td>
<td>T Peck, M Goldstein</td>
</tr>
<tr>
<td>29</td>
<td>Waking Up at Work: Action Research on Mindfulness, Awareness, and Presence</td>
<td>K Goldman Schuyler, S Skjei</td>
</tr>
<tr>
<td>30</td>
<td>Organisational Benefits of Alternate Mind-sets: How Meditative Techniques Enhance Employee Well-Being and Creativity</td>
<td>M Holm</td>
</tr>
<tr>
<td>31</td>
<td>Compassion-Based and Mindfulness-Based Trainings: A Controlled Trial with a Community Sample in Santiago de Chile</td>
<td>G Brito</td>
</tr>
<tr>
<td>32</td>
<td>Compassion in Motion</td>
<td>KM Killam</td>
</tr>
<tr>
<td>33</td>
<td>Relating Kindly with Themselves: Mindfulness and Self-Compasssion with Adult Women in a Latin-American Context</td>
<td>C Araya, L Moncada, J Fauré, L Mera, G Musa, J Cerda, M Fernández, P Araya, M Becerra, R Castillo</td>
</tr>
<tr>
<td>34</td>
<td>Effects of Vipassana Meditation and Holotropic Breath Work on Well-Being, Meaning of Life, and Personality Traits in the Context of a Weeklong Workshop</td>
<td>I Puentes, S Estain</td>
</tr>
<tr>
<td>35</td>
<td>Reaching “Innerstanding” En Route to Developing the Professional Self</td>
<td>SK Burns, PA Baker</td>
</tr>
<tr>
<td>36</td>
<td>A Study to Investigate the Neurocognitive Mechanisms Underlying Mindfulness-Based Cognitive Therapy in Depression (MBCT)</td>
<td>K Williams, R Elliott, R Zahn, T Barnhofer, I Anderson</td>
</tr>
<tr>
<td>37</td>
<td>Contextual Factors Associated with Mindfulness in Post-Surgical Lung Cancer Patients – Insights from Real-Time Data Collection</td>
<td>MP Shyko, J Burkhalter, P Green, JM Smyth</td>
</tr>
<tr>
<td>38</td>
<td>Self-Regulatory Behaviors During Weight Loss: Mindfulness Matters</td>
<td>BM Paolini, P Launenti, WJ Rejeski</td>
</tr>
<tr>
<td>39</td>
<td>Mindfulness-Based Interventions for Expectant Mothers and Fathers in High-Risk Populations: A Literature Review and Research Proposal</td>
<td>LM Hicks, CJ Dayton</td>
</tr>
<tr>
<td>40</td>
<td>Contemplative Interventions for Insomnia: A Systematic Review</td>
<td>MR Goldstein, LM Knowles, RR Bootzin</td>
</tr>
<tr>
<td>41</td>
<td>A Systematic Review of Mindfulness Interventions for Professional and Family Caregivers of Patients with Advanced Illness</td>
<td>M Dharmawardene, J Givens, S Makowski, A Wachholtz, J Tja</td>
</tr>
<tr>
<td>42</td>
<td>The Efficacy of Mindfulness-Based Interventions in Primary Care: A Meta-analytic Review</td>
<td>M Demarzo, J Montero-Marin, P Cuijpers, E Zabaleta, K Mahtani, A Vellinga, C Vicens, Y del Hoyo, J García-Campayo</td>
</tr>
<tr>
<td>43</td>
<td>The Secret Ingredient in Mindfulness Interventions: A Case for Practice Quality Over Quantity</td>
<td>SB Goldberg, AC Del Re, WT Hoyt, JM Davis</td>
</tr>
<tr>
<td>44</td>
<td>Building a Neural Model for Mindfulness’s Mechanism of Action in Irritable Bowel Syndrome (IBS) and Other Chronic Functional Disorders</td>
<td>AT Than, JF Santoyo, C Kerr, E Flynn</td>
</tr>
<tr>
<td>45</td>
<td>Coping Strategies, Positive Affect, and Binge Eating Disorder: Implications for Mindfulness-Based Approaches to Promote Flourishing Mental Health</td>
<td>A Lee-Winn, T Mendelson</td>
</tr>
<tr>
<td>46</td>
<td>Compass Mind Training for Relatives of Cancer Patients</td>
<td>C Andersson, S Viotti, S Einhom, W Osika</td>
</tr>
<tr>
<td>47</td>
<td>Building Cultures of Compassion Through Contemplative Practices in Health and Human Service Organizations</td>
<td>BM Stoessel, M St-Hilaire, D MacDonald, D Lussier</td>
</tr>
<tr>
<td>48</td>
<td>The Practice of the Examen by Healthcare Workers</td>
<td>MW Roche</td>
</tr>
<tr>
<td>49</td>
<td>Internal Family Systems: “A Model for Healing Wounds and Living Compassionately”</td>
<td>F Anderson</td>
</tr>
<tr>
<td>50</td>
<td>Mindfulness-Based Behavior Change: A New Model for A New Health Care System</td>
<td>J Watts</td>
</tr>
<tr>
<td>51</td>
<td>Addiction from a Biobehavioral Psychosocial Perspective: Using Mindfulness, Cognitive-Behavioral Therapy, and Motivational Interviewing to Understand and Treat Addictive Behaviors</td>
<td>I Weiss, E Kozasa, S Bowen, L Sartes, J Freitas, L Rabello, A Noto</td>
</tr>
<tr>
<td>52</td>
<td>Evaluation of the Effectiveness of the Program of Mindfulness-Based Relapse Prevention as an Assistant Strategy to the Treatment of Tobacco Dependence</td>
<td>VV Barros, S Bowen, MMP Demarzo, EH Kozasa, AR Noto</td>
</tr>
<tr>
<td>53</td>
<td>Adaptation of the Mindfulness-Based Relapse Prevention Program for Chronic Users of Benzodiazepines</td>
<td>EH Kozasa, S Little, SS Lacerda</td>
</tr>
<tr>
<td>54</td>
<td>Effects of a Meditation-Based Program Adapted for Industry (PROGRESS): A Cross-over Design Study</td>
<td>E Careau, S Dumont</td>
</tr>
<tr>
<td>55</td>
<td>Serving Collaborative Work Through Conscious Communication</td>
<td>NV Hansen</td>
</tr>
<tr>
<td>56</td>
<td>Dancing (and Laughing) with Habits</td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>SESSION TITLE</td>
<td>AUTHORS</td>
</tr>
<tr>
<td>----</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>61</td>
<td>Mindfulness in Active Learning for Medical Education</td>
<td>J Biolchini</td>
</tr>
<tr>
<td>62</td>
<td>Induced Mindfulness and Trait Self-Compassion Interactively Predict Medical</td>
<td>A Fernando, H Yoon, K Skinner, N Conedine</td>
</tr>
<tr>
<td></td>
<td>Student Compassion in Response to Difficult Patient Vignettes</td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>Impact of a Buddhist Meditation Course on College Students’ Well-Being</td>
<td>JK Penberthy, J Schorling, S Williams, J Hook, D Germano, K Schaeffer, N Le</td>
</tr>
<tr>
<td>65</td>
<td>Changing Minds: A Pilot Study of School-Based Mindfulness Training for At-Risk</td>
<td>TA Dennis, A Simmons, L O’Toole, D Vago, S Finley</td>
</tr>
<tr>
<td></td>
<td>Adolescents</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>Reducing Stress Among Urban Middle-School Students Through Mindfulness</td>
<td>EMS Sibinga, L Webb, S Ghazarian, JM Jennings, JM Ellen</td>
</tr>
<tr>
<td></td>
<td>Instruction</td>
<td></td>
</tr>
<tr>
<td>67</td>
<td>The Effects of a Mindfulness-Based Course for Students</td>
<td>JM Kim, S Lee</td>
</tr>
<tr>
<td>68</td>
<td>Study Design of a Mindfulness Training Program for Improving Health, Well-</td>
<td>J Li, K Dvoráková, M Kishida, M Greenberg, S Elavsky</td>
</tr>
<tr>
<td></td>
<td>Being, and Interpersonal Relationships of First-Year College Students</td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>Incorporating Contemplative Pedagogy in the Israeli Education System</td>
<td>O Mayeless, S Barzilay</td>
</tr>
<tr>
<td>70</td>
<td>Teens Diagnosed with Autism-Spectrum Disorders Improve Self-Awareness, Emo-</td>
<td>D Lucci</td>
</tr>
<tr>
<td></td>
<td>tional Regulation, and Social Awareness Through Heart-Focused Instruction</td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>Mindfulness and Preschoolers with Special Needs</td>
<td>D Lucci, L Weeks, RR Avery</td>
</tr>
<tr>
<td>72</td>
<td>The Effect of a Meditation Group for Educators Working with Children with</td>
<td>G Tippy</td>
</tr>
<tr>
<td></td>
<td>Autism</td>
<td>K Fort-Catanese</td>
</tr>
<tr>
<td>73</td>
<td>Social and Emotional Learning (SEL) and Mindfulness at Phuket International</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Academy Day School (PIADS): A Case Study</td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>Teaching Mindfulness to Social Workers: Transferring a Personal Contemplative</td>
<td>A Devault</td>
</tr>
<tr>
<td></td>
<td>Practice to Therapeutic Relationships</td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>Bringing Mindfulness to the Page: Ways of Cultivating Creativity, Fearlessness,</td>
<td>RG Philip</td>
</tr>
<tr>
<td></td>
<td>and Compassion in the Writing Classroom</td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>Bhutanese Teachers’ and Pupils’ Perceptions of Gross National Happiness in</td>
<td>P Ahonen</td>
</tr>
<tr>
<td></td>
<td>Education for Sustainable Development</td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>The Benefits of Integrating Mindfulness Awareness Practices with Social-Emo-</td>
<td>JO Waldemar</td>
</tr>
<tr>
<td></td>
<td>tional Learning in Elementary Public Schools in South Brazil</td>
<td></td>
</tr>
<tr>
<td>78</td>
<td>Creating Contemplative Studies in the American Southwest</td>
<td>A Fort, V Miller, M Dennis</td>
</tr>
<tr>
<td>80</td>
<td>Attachment Theory and Buddhist Psychology: Theoretical Foundations for Mindf-</td>
<td>M Beatch</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ulness-Based Interventions in Social-Emotional Education Programming</td>
</tr>
<tr>
<td>81</td>
<td>Disenchantment of the Category of Spirituality in Education</td>
<td>M Zraniecka</td>
</tr>
<tr>
<td>82</td>
<td>Somatic Compassion Training</td>
<td>WB Miller</td>
</tr>
<tr>
<td>83</td>
<td>Contemplative Inquiry into the Experience of Cultivating and Putting Self-</td>
<td>MC Younger</td>
</tr>
<tr>
<td></td>
<td>Compassion into Practice</td>
<td></td>
</tr>
<tr>
<td>85</td>
<td>Nagarjuna</td>
<td>CT Kohl</td>
</tr>
<tr>
<td>86</td>
<td>Having It Both Ways: Reconciling the Buddhist Nonself and Cultural Identities</td>
<td>CG Bhuvaneswar, B Burke, M Yildiz</td>
</tr>
<tr>
<td>87</td>
<td>Towards the Third Wave of Rational Choice Theory: From Traditionally Omnisci-</td>
<td>C Treisman</td>
</tr>
<tr>
<td></td>
<td>ent to Behaviorally-Bounded to Mindfully Meta</td>
<td></td>
</tr>
<tr>
<td>88</td>
<td>I tie my Hat - I crease my Shawl: Emily Dickinson and the Feeling of not Be-</td>
<td>W Rubel</td>
</tr>
<tr>
<td></td>
<td>ing a Self</td>
<td>K Sheffield, C Roe, A Gordon-Finlayson, G Smith</td>
</tr>
<tr>
<td>89</td>
<td>Understanding Lovingkindness Meditation</td>
<td>J Stanley</td>
</tr>
<tr>
<td>90</td>
<td>Habits, Practices, and Rituals for Cultivating a Contemplative Mind</td>
<td>S Shellbourne</td>
</tr>
<tr>
<td>91</td>
<td>Cultivating the Sweet Spot of Transformation</td>
<td>A Donahue</td>
</tr>
<tr>
<td>92</td>
<td>Living Practice of an American Householder</td>
<td></td>
</tr>
<tr>
<td>93</td>
<td>A Sangha at Your Fingertips: Using a Location-Based Application to Connect</td>
<td>I Walpola, A d’Aboville</td>
</tr>
<tr>
<td></td>
<td>Contemplatives</td>
<td></td>
</tr>
<tr>
<td>94</td>
<td>Cultivating Rootedness and Relatedness in a Digital Age</td>
<td>O Ucok-Sayrak, G Kramer</td>
</tr>
<tr>
<td>95</td>
<td>Sincerity, Irony, and the Everydayness of Humanities</td>
<td>RM Marnane</td>
</tr>
<tr>
<td>96</td>
<td>Women of Buddha: Nuns in Bhutan</td>
<td>MV Thesbjerg</td>
</tr>
<tr>
<td>97</td>
<td>Journey for Happiness</td>
<td>MV Thesbjerg</td>
</tr>
<tr>
<td>98</td>
<td>Way of Life: Stories by Children of Bhutan</td>
<td>MV Thesbjerg</td>
</tr>
<tr>
<td>99</td>
<td>Good Karma! Mindfulness! Prayers! Contemplative Educational Material for Chi-</td>
<td></td>
</tr>
</tbody>
</table>
1. Neurophysiological and Neurocognitive Mechanisms Underlying the Effects of Yoga-Based Practices: Towards a Comprehensive Theoretical Framework

Laura Schmalzl, University of California, San Diego

The past decades have witnessed the emergence of numerous yoga-based practices in the West, with their aims ranging all the way from fitness gains to therapeutic benefits and spiritual development. Yoga is also beginning to spark growing interest within the scientific community, and yoga-based interventions have been associated with measurable changes in physiological markers, cognitive functioning, and perceived emotional states. Yoga interventions typically involve a combination of postures or movement sequences, active manipulation of the breath, and various techniques for improving attentional focus. However, little if any research has attempted to deconstruct the role of these different component parts. Hence, what is needed for scientific purposes is a clear operational definition of yoga-based therapeutic interventions, and a comprehensive theoretical framework from which testable hypotheses can be formulated. Here, we propose such a framework, and outline the bottom-up neurophysiological and top-down neurocognitive mechanisms hypothesized to underlie the effects of yoga-based practices.

Authors: L Schmalzl, C Powers, E Henje Blom
Theme: Basic Science

2. Mindfulness: A Meditational Approach to Overcoming Afflictive Emotions

Ana-Maria Clasing, Private Alternative Medicine Practice

The “miasmatic theory” established in the fourth principle of the homeopathic system of cure by Dr. Samuel Hahnemann helps identify afflictive emotions as original causes of diseases. To identify afflictive emotions (skr. Kleshas) as one of the main obstacles concerning people’s health states is the first step towards its cure. Meditational techniques to dissolve them would complete the health process. A randomized controlled study of mindfulness in patients treated with homeopathic medicine is presented.

Authors: AM Clasing
Theme: Basic Science, Other

3. The Varieties of Self-Transcendent Experience

David Yaden, University of Pennsylvania

Self-transcendent experiences range from the routine to the transformative, with a spectrum of intensities in between. We plot psychological constructs that contain degrees of self-transcendence along a dimension of experiential unity, called “the unitary continuum.” Constructs that fall within this preliminary analysis include self-transcendent positive emotions, flow, awe, mindfulness, peak experiences, and mystical experiences. In contrast to self-orientated states (like negative emotions, anxiety, and depression), self-transcendent states tend to correlate positively with well-being and altruistic behavior. Spiritual beliefs often increase as well. We propose a novel neurocognitive theory to account for these data, which posits that as one’s self-boundaries decrease into a sense of unity, the tendency to ascribe/perceive mind in others and objects increases. We review psychological research on self-transcendent experiences, propose an organizational framework, and offer neurological, cognitive, and evolutionary perspectives on what we call “the varieties of self-transcendent experience.”

Authors: D Yaden, J Haidt, B Hölzel, R Hood, A Newberg
Theme: Basic Science

4. Network Analytic Strategies for Quantifying Qualitative Changes in Personal Meaning During Intensive Meditative Training

Jen Pokorny, Center for Mind and Brain, University of California, Davis

Contemplative practices are thought to reduce suffering and enhance personal meaning by promoting self-inquiry, well-being, and compassionate responses. We conducted semi-structured interviews with participants undergoing an intensive three-month meditation retreat involving training of focused attention (shamatha) and cultivation of beneficial aspirations (Four Immeasurables). We thematically coded these qualitative data using a content analysis approach. We then quantified these data to conduct network analyses of interconnections between coded themes. Our novel methodology allowed us to examine group-level longitudinal changes in participants’ worldviews, motivations, and personal meanings ascribed to their training. Network patterns of coded themes suggest the centrality of compassion to practitioners’ value system. Furthermore, measures of network centrality suggest that contemplative training appears to strengthen participants’ desire to care for others (e.g., to be of service to humanity). The network properties of participants’ value system will be examined in relation to self-report and behavioral measures relevant to well-being and compassion.

Authors: JP Pokorny, AP Zanesco, SM Bauer-Wu, R Whitworth, BA Wallace, BK Sahdra, CD Sarom
Theme: Basic Science

5. Longitudinal Changes in Brain Structure after Eight Weeks of Training in Either Mindful Attention Meditation or Compassion Meditation

Omar Singleton, Massachusetts General Hospital

The brains of long-term meditators reportedly show differences from non-meditators. Previous longitudinal studies have found that meditation training in novices can affect brain anatomy after only a few weeks. However, little is known about the effects of compassion meditation training. As part of a larger randomized controlled trial, 43 meditation-naive healthy adults randomized to either cognitively-based compassion training, mindful attention meditation (shamatha) training, or a control group and took part in brain imaging sessions pre- and post-intervention. After compassion training, participants’ brains exhibited increased cortical thickness in the left dorsomedial prefrontal cortex, a
7. High-Amplitude electroencephalographic (EEG) Signals Arising during Non-Dual Meditation Involve Coherence Between Spatial-Separated Radial Dipoles

Brent Field, Princeton University

Lutz et al. reported that experienced meditators meditating in a non-dual state generated large beta- and gamma-band electroencephalographic (EEG) signals. They further found related correlations (via phase synchrony) between a few distal regions of interest. We had experienced meditators from the Tibetan Buddhist tradition, as well an age-matched control, engage in three different states of meditation while measuring EEG. We replicated the previous findings by Lutz et al. in the group of experienced meditators. The age-matched control group had uninteresting EEG dynamics. Going beyond the previous results, we found more extensive spatial correlations by comparing magnitude-squared coherences with spatial distance. Differences between meditators and controls were primarily in long-distance electrode pairs. Concern with the Lutz finding revolves around its large amplitude, which suggests muscular origins. However, as (1) we find elevated long-distance coherence, and (2) our method filters tangential dipoles with spline surface Laplacians, these data add support for a neural component.

Authors: BA Field, B Eppinger, TC Ferree
Theme: Basic Science

6. The Effect of Tai Chi Training on Corticomuscular Coherence

Uday Agrawal, Brown University
Sandeep Nayak, Brown University

Tai chi (TC) is a contemplative practice emphasizing attention to movement and bodily sensations. We hypothesized TC practice leads to enhanced modulation of corticomuscular coherence between the muscles and the brain. We measured a correlate of corticomuscular coherence, intermuscular coherence (IMC), to determine if TC practice was associated with modulation of IMC by testing 15 TC practitioners and 16 controls during a static hand-muscle task with baseline and attention conditions. Although there was no difference between TC and controls, TC expert subjects demonstrated reduced beta IMC compared with novice practitioners. Experts also showed reduced task-related error during the attention task. To elucidate these findings, we conducted a rubber hand illusion (RHI) test, and found that failure to report a subjective response to the tactile component of the RHI was correlated with both TC expertise and lower beta IMC during the attention condition. Together, these findings suggest TC practice leads to changes in descending efferent and ascending afferent processing.

Authors: U Agrawal, S Nayak, C Kerr
Theme: Basic Science

8. Decreased Chaotic Electroencephalograph (EEG) Signal During Mindfulness-Based Stress Reduction (MBSR) Meditation

Junling Gao, Centre of Buddhists Studies, The University of Hong Kong

Chaotic phenomenon is common in the biological system, including the human brain, which controls the individual’s dynamic behavior. This study aimed to measure the entropy of electroencephalograph (EEG) during mindfulness-based stress reduction (MBSR) training. Eleven participants from a standard MBSR course
were recruited in this study using a 128 high-definition EEG system. Two mental states of 10 minutes of MBSR meditation versus 10 minutes of close-eye normal rest were compared. The EEG data were measured twice at the first week of MBSR training and after eight weeks of training. In line with previous meditation study, increased alpha power was found globally during MBSR meditation. A unique finding of the present study was that the MBSR meditation can reduce the wavelet entropy when compared to normal rest, mainly in the frontal lobe and temporo-occipital areas. Furthermore, the heart-rate variability decreased after MBSR training.

Authors: JL Gao, JC Fan, RT Cheung, HH Sik, BS Huang, ZG Zhang, YS Hung, CQ Chang
Theme: Clinical Science

9. Mindful Attention Modulates Immersion in Stressful Thoughts
Lauren Lebois, Emory University

Part of what makes thoughts stressful is that they seem real, almost as if they are happening in the moment. Because of this, we hypothesized that immersion in stressful thoughts would involve the mental reenactment of a stressful situation, triggering a stress response. Conversely, mindful attention would prevent individuals from becoming immersed, such that stress responses no longer result. A functional Magnetic Resonance Imaging (fMRI) experiment compared neural activity when participants were immersed in stressful scenarios to periods when they observed their thoughts as fleeting mental states (mindful attention). Immersion activated regions involving the senses, action, and self-referential and emotion processing. These areas were significantly less active when participants were mindfully attending to the same stressful scenarios, suggesting that mindful attention disabled stressful simulations. Instead, an interoceptive circuit became active. These findings shed light on the mechanisms that contribute to reenacting stressful events, and also to those that allow mindfulness to have therapeutic effects.

Authors: LAM Lebois, EK Papies, RS Cabanban, K Quigley, K Gopinath, LF Barrett, LW Barsalou
Theme: Basic Science

10. Bringing the Mind Back: Brain Oscillations Associated with Refocusing Attention After a Mind Wandering Episode
Spencer Fix, University of North Carolina at Charlotte

To examine whether the cognitive and neural mechanisms are similar across activities used to induce mind wandering, comparisons were made in cognitive task performance, electroencephalographic (EEG) activity, and self-report incidences of mind wandering. A within-subjects design was used to investigate differences in event-related desynchronization/synchronization (ERD/ERS) during the Sustained Attention to Response Task, a breath-counting task, a period of eyes-closed rest, and a focused-attention (FA) meditation. The
FA meditation and breath-counting tasks elicited a significant ERD in the theta and delta bands in frontal and central brain regions, whereas alpha and beta band activity displayed a significant ERS in posterior regions. The present study helps shed light on the brain mechanisms involved in mind wandering and refocusing attention during meditation, and other cognitive tasks used to induce mind wandering.

Authors: S Fix, M Faust, S Johnson
Theme: Basic Science

11. Functional Connectivity Between the Amygdala and Left Cerebellum Is Positively Correlated with Higher Anxiety Symptoms in Healthy Stressed Adults
Noel Chan, Massachusetts General Hospital, Harvard Medical School
The amygdala is well-known for mediating stress and anxiety, and recent work implicates the cerebellum in cognition and emotion. Previous studies showed greater changes in functional connectivity between the amygdala and prefrontal cortex following mindfulness training, and both amygdala function and structure correlated with well-being. It is currently unclear whether individual variability in baseline functional connectivity in the amygdala during rest correlates with psychological measures. The current study seeks to determine whether cross-sectional baseline functional connectivity in the amygdala during rest correlates with self-report measures of anxiety symptoms, mindfulness, and well-being. Our results showed that functional connectivity between the amygdala and left cerebellum positively correlated with higher anxiety symptoms, and negatively correlated with greater mindfulness and higher well-being in a cross-sectional cohort of healthy stressed adults. Our data indicate detectable individual variability in baseline functional connectivity between the amygdala and left cerebellum during rest, and these cross-sectional data correlate with meaningful psychological measures.

Authors: NY Chan, XD Yan, O Singleton, SW Lazar
Theme: Basic Science

12. Experienced Meditators Display Altered Neural Activation in Cortical Attention Networks
Kathryn Devaney, Boston University
Meditation experience correlates with improved performance on behavioral assessments of attention, but the neural bases of this improvement are unknown. Two prominent, competing attention networks exist in the human cortex: a dorsal or “focused attention” network and a ventral “circuit-breaker” network by which stimuli can capture attention. We used functional magnetic resonance imaging to contrast these cortical networks between experienced vipassana meditators and controls. Participants performed two standard attention tasks during scanning: a sustained attention task and an attention-capture task. In controls, these tasks preferentially drive the dorsal and ventral networks, respectively. By contrast, in meditators the attention-capture task drove little activation in either network, despite high performance levels; however, meditators did show elevated activity in the ventral attention network for a standard dorsal attention task. The behavioral and imaging results suggest that meditators differ from controls in their attentional strategies, and in the brain networks that support them.

Authors: KJ Devaney, EJ Levin, SW Michalka, ML Rosen, DC Somers
Theme: Basic Science

13. University Meditation Course Cultivates Inhibitory Control and Emotional Awareness
Juan Santoyo, Brown University, Contemplative Studies Initiative
Attention training through meditation has been associated with improvements in various socioemotional skills. In this study, we sought to investigate changes in inhibitory control, perspective-taking tendencies, and emotional awareness in students enrolled in courses with meditation-training components (e.g., MEDLABs), compared with courses with other forms of attentional training (e.g., music training). Emotional awareness was measured through responses to images from the International Affective Picture System (IAPS). Inhibitory control was measured through withheld button presses in a go/no-go task, the sustained attention to response task (SART). Perspective taking was assessed with the Interpersonal Reactivity Index (IRI). Results showed significant improvements in emotional awareness and inhibitory control in students enrolled in MEDLABs in comparison with students receiving other forms of training. For meditators, greater inhibitory control was significantly correlated to greater emotional awareness and perspective taking. This suggests that through deliberate repetition and regular practice, meditation training may drive improvements in positive mental skills and socioemotional dispositions of critical importance in young adults.

Authors: JC Chou, JF Santoyo, Y Kang, H Roth, W Britton
Theme: Basic Science, Education

Danielle Cosme, Stockholm University
Stefan Wiens, Stockholm University
One proposed mechanism underlying mindfulness is emotion regulation. Emotion can be regulated through various processes, including attentional deployment. As mindfulness is a form of attention that is qualitatively receptive and nonreactive, it is thought to facilitate emotion regulation. To better understand the relationship between mindfulness and emotional reactivity and regulation, we employed a multimethod approach using neural, physiological, and behavioral measures of attention and arousal to emotional stimuli. While subjects viewed positive, neutral, and negative pictures, we recorded high-density electrocortical data and also electromyography data as a measure of affect-modulated startle response to acoustic startle probes. Subjects then rated their subjective valence and arousal while viewing the pictures again. Preliminary analysis shows effects of emotion on LPP, subjective ratings, startle eyeblink, and startle P3, but dispositional mindfulness did not moderate these effects. Although data collection is not complete, these preliminary data do not support the hypothesis that individual differences in dispositional mindfulness affect emotional responses to emotional pictures.

Authors: D Cosme, S Wiens
Theme: Basic Science
15. Investigating First-Person Experiences During Different Types of Meditation: Towards a Neurophenomenological Approach in Contemplative Studies

Marisa Przyrembel, Max Planck Institute for Human Cognitive and Brain Sciences

The growing scientific interest in contemplative practices has called for new phenomenological approaches, but many investigators have been hesitant to conduct such qualitative research. Until today, quantitative methodologies capturing the effects of meditation on brain, behavior, and well-being have dominated, even though the core conceptions of mental training (e.g., mindfulness, emotion regulation, self-perception) are by definition subjective experiences. How does it feel from a first-person perspective to engage in different kinds of meditation practice? To tackle this question, we used elicitation interviews as a qualitative method to compare the differential nature of different meditation techniques in the context of the ReSource Project, a multimethod, longitudinal mental-training study. More specifically, 20 subjects gave elicitation interviews on the following three types of meditation: (1) attention to breath; (2) observation of thought, and (3) lovingkindness. Preliminary qualitative analysis of these 60 audio- and video-recorded transcribed interviews clearly indicates differences concerning aspects of first-person experiences during different types of meditation. For example, attention to breath activates bodily sensations around nose/abdomen; observation of thought, in/around the head; and lovingkindness, in the chest. Further, during attention to breath and observation of thought, the subjective temperature sensations are described as neutral, while lovingkindness meditation is accompanied with the sensation of warmth. These qualitative analyses are supplemented by computer-based quantitative analyses of the transcripts using LIWC, providing evidence for differential experiences underlying the meditation technique. For example, in the interviews on lovingkindness meditation, participants express themselves in a way that is coded as more social, communicative, and optimistic. These rich first-person data will be further used to inform third-person data collected with an exhaustive battery of tasks in the ReSource study to move towards neurophenomenological accounts of meditation.

Authors: M Przyrembel, T Singer

Theme: Basic Science, Philosophy/Humanities

16. Neurophenomenal: From Experience to Self-Regulation of Brain Signals

Juliana Bagdasaryan, Institut du Cerveau et de la Moelle Epiniere (ICM)

Recently, we have proposed that neurofeedback paradigms seem a promising tool in the study of subjective neuroscience. A real-time display of the subject’s ongoing neural activity allows the subject to explore the signal’s change over time. The interest of such “window to the brain” is to facilitate the search of a systematic relationship between a selected type of neural activity and personal experience such as thoughts, memories, or other objects coming to mind. Eventually, a link between the two can be found and exploited as a mental strategy to systematically evoke changes in the neural signal, and thus intentionally shape brain activity. A special feature of this experimental protocol is the active participation of the subject and its contribution to the outcome of the study, very much in the sense of neurophenomenology. We have performed neurofeedback training with five epileptic patients undergoing presurgical evaluation with intracranial electrodes. We demonstrate that voluntary up-regulation of theta activity (4–8 Hz) in the temporal cortex has a propagating effect of a few cm within cortex. Moreover, this large-scale activity has a phase-modulating effect in higher frequencies associated with local network and single-cell activities. On the other side, we have obtained detailed phenomenological reports of how the patients realized this control. These results encourage the idea that self-regulation of brain activity can be achieved through the self-regulation of one’s own mental activities, which is relevant for alternative approaches to physical and mental health. Future studies with meditation practitioners shall serve to obtain even more subtle descriptions of possible regulation techniques.

Authors: C Lyddy, D Good

Theme: Other

17. Selfless Esteem?: Testing If Mindfulness Inoculates Against Self-Esteem Threat

Darren Good, Pepperdine University

Christopher Lyddy, Case Western Reserve University

Mindfulness has been theorized to foster self-transcendence, which may manifest as self-esteem independent of contextual factors. If true, more mindful individuals should have relatively stable self-esteem after experiencing success or failure. This property would be consistent with core contemplative and psychological theory about mindfulness, and confer the practical benefit of resilience. To test this hypothesis, we conducted two studies in which participants experienced failure on an assessment that ostensibly evaluates personal ability and predicts future academic and professional success, a paradigm that reliably induces self-esteem threat. The first study explored whether trait mindfulness attenuates the usual post-failure decrease in self-esteem and mood valence. The second explored whether the addition of a mindfulness induction prior to the threat further contributed towards attenuating the typical self-esteem threat. Results are pending completion of the experiments. If the hypotheses are confirmed, the experiments would affirm the proposition that mindfulness fosters selfless equanimity and stable self-esteem.

Authors: C Lyddy, D Good

Theme: Other

18. A Qualitative Study on the Perceived Effects of Meditation on Stress, Interpersonal Relations, and Decision Making at Work

Simon Grégoire, Université du Québec à Montréal

Geneviève Taylor, Université du Québec à Montréal

The aim of this qualitative study was to explore the benefits employees can gain from practicing meditation on the way they: (1) manage their stress; (2) communicate with each other; and (3) make decisions at work. Twenty-two employees...
19. Mindfulness May Reduce Risk Taking
Vita Droutman, University of Southern California

Research has established that mindfulness training improves attention and emotion regulation. A separate line of work on risky decision making in adolescence has identified increased emotional reactivity as a key cause of risk taking during this period. We hypothesize that since mindfulness training can decrease or help regulate emotional reactivity, its practice may lead to reduced risk taking by adolescents. The present study examined the effect of short mindfulness practice on risk taking in older adolescents. Participants assigned to the mindfulness condition performed guided mindfulness practice, while the control group participants listened to relaxing music. Next, participants played a risk-taking game, first alone, and then with a partner. Analyses indicated that the participants in the mindfulness group took significantly less risk during the partner portion of the experiment than participants in the control group. This finding is especially important because it has been shown that adolescent risk taking increases when peers are present.

Authors: V Droutman, SJ Read
Theme: Basic Science

20. How Self-Regulation Affects Problem Solving in Early Childhood
Sabina Pauen, Department of Psychology, University of Heidelberg

Problem solving requires cognitive self-regulation. Until today, it is still largely unknown how both abilities are related in early childhood. We report data of thirty-one 22-month-olds suggesting that working memory and attention shifting are correlated with transfer performance in a tool-use task. Response inhibition (a third central component of cognitive self-regulation) shows no association with transfer performance at this age. Data collection for 24-month-olds is almost completed, and results for both age groups will be compared. By focusing on the early emergence of self-regulatory skills and their impact on cognitive performance, we hope to shed light on some basic capacities contributing to contemplation.

Authors: S Pauen, S Bechtel
Theme: Basic Science

21. Emotional Management and Psychological Feeling of Well-Being in Practitioners of Progressive Self-Focus Meditation
Jose Leite, Universidade Federal De São Paulo

The aim of the present study was to evaluate if a program composed of self-focus meditation and a cognitive-behavioral intervention produced well-being and reduced anxiety and depression scores in self-evaluation inventories. In a randomized controlled trial, 65 healthy volunteers were selected after signing an informed consent waiver, participating in sessions of progressive self-focus meditation (including focusing on breathing, autogenic relaxation, and repetition of the word “Om”, linking this word with each exhalation while observing thoughts and images without judgment). Sessions of cognitive-behavioral training to control negative feelings by modifying dysfunctional thoughts were also done. A group of 73 people who participated in seminars on health formed the control group. The results in the Ryff inventory suggest that the program increased well-being. Moreover, a reduction of anxiety and depression scores in the Beck inventories was also observed.

Authors: JR Leite, AM Costa, CA Ruaro, FJP Silva, I Belik, LR Silva, L Lopes, M Martins, MCG Cesar, S Pugliesi, SL Snege, S Riccetti
Theme: Practice

22. Contemplative Practice and Psychological Well-Being: Evidence from a Large Latin American Sample
Claudio Araya, Pontificia Universidad Católica de Chile, Universidad de Chile
Gonzalo Brito, Transpersonal Psychology, Sofia University
Álvaro Langer, Pontificia Universidad Católica de Chile

Although research on contemplative practices has increased exponentially over the last decade, little research has been carried in Latin American countries. This poster presentation addresses this gap and serves the double purpose of: (1) describing the characteristics of meditation practice in a large Latin American sample; and (2) comparing several dimensions of psychological well-being between meditators and nonmeditators. Using an online survey, 513 respondents answered a questionnaire about meditation experience (e.g., frequency, time of practice, etc.) and five scales that assessed psychological symptoms (stress, anxiety, and depression) and psychological flourishing (self-compassion, compassion for others, gratitude, and happiness). People who practiced meditation show significantly lower levels of stress, anxiety, and depression, and higher levels of self-compassion, compassion for others, gratitude, and happiness, compared to nonmeditators. Results and implications for the Latin American context are discussed.

Authors: C Araya, G Brito, AI Langer
Theme: Basic Science

23. A First-Person Investigation of Desire and Self
Christine Wilson-Mendenhall, Northeastern University

Contemplative philosophies offer new insights into understanding when desire fosters suffering and when it promotes
flourishing. These philosophical traditions reveal new research questions that target the wide variety of desires people experience; the cognitive processes that shape the content, frequency, and intensity of desires (such as reifying self-concepts); and the relationship between these underlying processes, momentary desires, and well-being. We are developing a research project that will empirically investigate these questions using a multimethod scientific approach. First-person experience sampling is at the heart of this approach, which will allow us to study the patterns of self-grasping and desire that contribute to well-being on a daily basis. Our overarching hypothesis is that higher levels of self-grasping will be related to more self-focused desires and reduced well-being, whereas lower levels of self-grasping will be associated with more self-transcendent desires and greater well-being.

Authors: CD Wilson-Mendenhall, P Condon, W Hasenkamp, LW Barsalou, LF Barrett

Theme: Basic Science

24. The Mindful Click Effect: Web-Based Real-Time Behavioral Monitoring of Mindfulness Practice

Miguel Quintana, Complutense University of Madrid

Benefits of mindfulness on reducing psychological distress, increasing sense of well-being, and enhancing compassion are linked to meditation. However, consistent adherence to its practice is challenging. Real-time monitoring and continuous feedback can provide personalized insight and a sense of progress to mindfulness practitioners. This information could ultimately contribute to fostering regular meditation practice. Although digital technology can be a source of psychological distress and undermine attention, recent studies have shown that web-based meditation programs are an effective means of learning and developing mindfulness skills. Specifically, a novel web-based interactive behavioral tool has shown its potential to monitor state mindfulness and provide feedback. Data from more than 2,000 volunteers and more than one million minutes of online real-time tracking of single meditation sessions, and its relationship with trait mindfulness and stress, will be presented. The potential of creating an online supportive community based on real-time monitoring and feedback on mindfulness practice will be discussed.

Authors: M Quintana

Theme: Practice

25. The Impact of Meditation Training on Mind Wandering while Reading

Anthony Zanesco, University of California, Davis

Attention is continually drawn away from task-related goals to internal thoughts and feelings as the mind drifts on and off task. The wandering mind is thus a considerable source of distraction when attention must be maintained over time. Directed mental training through meditation may be one effective method of attenuating the ebb and flow of attention to mental events when attention must be maintained on the present goal. In two studies of intensive meditation training, we provide evidence that meditative training may attenuate mind wandering in a computer-based reading task. In the first study, training participants were assessed at the beginning and end of a three-month shamatha meditation retreat. In the second study, training and control participants were assessed at the beginning and end of a one-month insight meditation retreat. Across studies, training participants engaged in less mindless reading and probe-caught mind wandering following training.

Authors: AP Zanesco, BG King, KA MacLean, TL Jacobs, SR Aichele, BA Wallace, J Smallwood, JW Schooler, CD Saron

Theme: Basic Science

26. The Comparative Effects of LKM and Mindfulness Meditation

John Edwards, Oregon State University

Most meditation studies focus on only a single type of meditation. This ignores the fact that meditation techniques can differ greatly in their content and intended outcomes. A study examined the common and differential effects of loving-kindness meditation and mindfulness meditation on cognitive, interpersonal, and life outcome variables. Participants engaged in eight weeks of guided meditation practice. Both meditation styles led to improvement in measures of depressive/anxious affect, emotional understanding, life satisfaction, ease of negotiating situations, ego resilience, and emotion regulation. However, differential effects were found for the two meditation techniques for responses to stress, attentional control, and emotion management. Preexisting personality characteristics as measured by the Big Five Inventory interacted with positive outcomes over time and meditation group, suggesting that people respond differentially to meditation types depending on their personality.

Authors: V Braun, A Falkenstein, J Edwards

Theme: Basic Science

27. Yoga Enhances Positive Psychological States in Young Adult Musicians

Bethany Butzer, Brigham and Women’s Hospital

This study examined the effects of an eight-week yoga intervention on factors that may enhance music performance, such as psychological flow and mindfulness. Young adult musicians participated in a yoga and meditation program at a yoga center. Additional musicians were recruited separately as no-intervention controls. Yoga participants received up to three yoga classes per week, and all participants completed self-report questionnaires at baseline and end-program to evaluate flow experience, mindfulness, and confusion. Yoga participants reported significant decreases in confusion and significant increases in overall psychological flow. Trends also emerged in which yoga participants reported increases in mindfulness, as well as increases on the flow subscales of unambiguous feedback and autotelic experience, and the mindfulness subscale of awareness. When participants’ flow and mindfulness increased, their mood disturbance and music performance anxiety decreased. These results suggest that yoga and meditation might reduce confusion and enhance flow and mindfulness during music performance.

Authors: B Butzer, K Ahmed, SBS Khalsa

Theme: Arts
28. Possible Correlates of Skill at Mindfulness Meditation
Michael Goldstein, University of Arizona
Tucker Peck, University of Arizona

Research methodology for studying meditation might be improved if it were possible to measure a participant’s skill at meditation, but little research has focused on how skill might be measured. This study is a preliminary examination of how lower-order skills at meditation may be measured. A total of 69 participants were recruited. Pilot data were collected from 33 participants, and analyzed using exploratory methods to assess whether any self-report measures of mindfulness practice might correlate with any physiological variables thought possibly to reflect a dimension of skill at meditation. Participants spent a night in the sleep lab; prior to their sleep study they spent six minutes in a baseline condition, followed by six minutes in a meditation condition (procedure adapted from Lazar et al.). Differences were recorded on a number of physiological measures. Correlational analyses revealed that, of the physiological and self-report measures, six were correlated with other measures. Principal component analysis uncovered two factors, each with three components. Thirty-six additional participants were then recruited in an attempt to determine whether these two factors would replicate. Both factors were largely replicated independently in the second sample and remained stable, collapsing the two groups together. Factor 1 combined an increase in both alpha and theta power centrally and occipitally between baseline and meditation with self-reported mindfulness practice. Factor 2 combined the inverse of meditation with self-reported mindfulness and occipitally between baseline and during meditation. Theoretical issues surrounding measurement of meditation skill, as well as directions for future research to continue this endeavor, are discussed.

Authors: T Peck, M Goldstein
Theme: Basic Science

Susan Skjei, Authentic Leadership Program, Naropa University

The researchers took a first-person approach to noticing and systematically exploring the experience of being present or awake at work. This two-year qualitative project involved phenomenological analysis of contemporaneous notes taken for four weeks by 15 participants in an action research project that aimed both to strengthen participants’ awareness and to understand its nature. We are curious about what enables a person to become present. Rather than studying mindfulness training or its impact, we wished to elicit the intention to be present. This approach came from years of experience with meditative practices that arrive, after extensive training, at inviting people simply to be present to their minds, people, and the space around them. The root teachings for such practices focus on what we might call alive presence. Such a capacity to bring oneself present is the foundation for the most exciting organizational change projects aimed towards systemic global change.

Authors: K Goldman Schuyler, S Skjei
Theme: Other

Marie Holm, Chair Mindfulness, Well-Being at Work and Economic Peace, Grenoble Ecole de Management

In contrast to traditional mind-sets (TMS) — conscious awareness, controlled mental processes, and analytical-logical manipulation of symbols — alternate mind-sets (AMS) are viewed as preconscious mental processes (i.e., associative, imaginative, intuitive) and holistic thinking. Since Plato, the West has considered TMS as the hallmark of intelligence, and simply of any cognition. Yet in recent decades, various research explored alternatives to analytical-logical cognition mental systems. Alternative mind-sets were primarily explored for their individual benefits, while our research focuses on organizational benefits. To do this, we used a biweekly meditative practice to induce AMS in organizational actors. We hypothesized that shifting from TMS to AMS will bring benefits of enhanced well-being and creativity. Empirical experiments were conducted with 144 self-selected participants within three organizations in Canada and France measuring well-being and creativity with eight sessions of guided meditation. For control groups, a “placebo” relaxation technique was used. For measuring well-being, participants completed Diener’s Satisfaction with Life Scale (SWLS) prior to each session and afterwards, the Mindful Attention Awareness Scale. At end of workday, participants again completed the SWLS. For measuring creativity, prior to the first session, participants outlined several current challenges and completed a creativity test, the Adjective Check List (ACL) Creativity Scale, and afterwards, completed the MAAS. At end of workday, they again completed the ACL and reported solutions to one challenge, which were assessed by a panel of judges. Statistical analysis showed significant increases in well-being and creativity, as well as mindfulness, for the experimental groups compared to the control groups for all locations as of six sessions. Thus, organizations can reap AMS benefits spanning from enhanced well-being and creativity as shown in our experiments to potentially higher employee engagement, improved health, and reduced stress. Furthermore, applying AMS-inducing techniques could enhance profitability, innovation, and entrepreneurship.

Authors: M Holm
Theme: Basic Science, Other

31. Compassion-Based Trainings: A Controlled Trial with a Community Sample in Santiago de Chile
Gonzalo Brito, Sofia University

This paper presents the first implementation of Stanford’s Compassion Cultivation Training in a South American country, comparing its impact with a mindfulness-based stress reduction program. Compassion cultivation training was compared to a waitlist (randomized) and a mindfulness-based stress reduction (matched) control. Pre-
post changes for mental health, mindfulness, self-compassion, empathy, and compassion were measured. Real-world effects were assessed through friendly observer reports (a questionnaire for family members on perceived personal and relational changes). The compassion intervention proved adequate and effective for the local population; compassion training enhanced mental health and relational well-being (as assessed by self-reports, interviews, and friendly observer reports), family members of compassion trainees highlighted improvements in participants’ empathy and capacity to listen, and mindfulness-based and compassion-based interventions were both effective in enhancing psychological well-being but compassion training had a unique impact in relational outcomes. Aspects of the implementation of compassion and mindfulness programs in South America will be discussed.

Authors: G Brito
Theme: Education

32. Compassion in Motion
Kasley Killam, Compassion in Motion
This presentation will explore preliminary outcomes of Compassion in Motion, an initiative to spread compassion, kindness, empathy, social connectedness, altruism, and well-being to over 1.2 billion people per year internationally. Specifically, this campaign aims to present science-based activities and apps that are informative, inspiring, and interactive on touch-screen technology in Canada (in taxis), the United States (on gas-pumps), and China (in taxis). Thereby, in line with the goals of Mind and Life, Compassion in Motion can disseminate existing research about prosocial qualities to the general public and conduct extensive novel research on the effectiveness of interventions that promote prosocial qualities. This presentation integrates the disciplines of psychology, contemplative science, and technology.

Authors: KM Killam
Theme: Basic Science, Clinical Science

33. Relating Kindly with Themselves: Mindfulness and Self-Compassion with Adult Women in a Latin-American Context
Claudio Araya, Pontificia Universidad Católica de Chile, Universidad de Chile
Neff and Germer have recently developed the Mindfulness Self-Compassion Program. Based on this program, we have implemented a pilot intervention with women (aged 20–50 years) living in communities considered “vulnerable” in Santiago, Chile. We have developed a qualitative and quantitative study. Preliminary results show a significant increase in levels of mindfulness and self-compassion, along with a significant reduction in levels of anxiety, depression, and stress among participants. The relevance of this study lies mainly in that most of the interventions have been conducted in European or North American contexts, with whites and people already interested in meditation. This study supports the effectiveness of this program in a different kind of population: a Latin-American population with high psychosocial vulnerability and not interested a priori in meditation.

Authors: C Araya, L Moncada, J Fauré, L Mera, G Musa, J Cerda, M Fernández, P Araya, M Becerra, R Castillo
Theme: Basic Science

34. Effects of Vipassana Meditation and Holotropic Breath Work on Well-Being, Meaning of Life, and Personality Traits in the Context of a Weeklong Workshop
Iker Puente, Autonomous University of Barcelona
In this presentation, we explore the effects of vipassana meditation and holotropic breath work in the context of a weeklong residential workshop on levels of distress and well-being, meaning of life, death anxiety, and some personality traits. This workshop combined daily vipassana meditation and two holotropic breath-work sessions for each participant, and formal teachings. A single group and pre-post test design with a four-month follow-up time point was used. The tests used were the Brief Symptom Inventory (BSI), the Purpose in Life Test (PIL), the Temperament and Character Inventory-140 (TCI-140), and the Death Anxiety Scale (DAS). A significant reduction in the Global Severity Index of the BSI was found two weeks and four months after the workshop. A significant reduction in death anxiety, and significant increases of the meaning in life and self-directedness, were also found two weeks after the weeklong workshop.

Authors: I Puente, S Estaún
Theme: Basic Science

36. Reaching “Innerstanding” En Route to Developing the Professional Self
Shawna-Kae Burns, University of the West Indies
The “use of self” to form helping relationships is a vital social work skill. This paper presents the findings of a study of the individual and collective encounter with self and “other” in a developing country context, characterized by high levels of conservative religiosity, inequality, and paternalism. The study, which is an analysis of student journals and self-understanding workbooks created in a “human skills lab” in a tertiary-level social work program in the Caribbean, shows that most students go through an initial period of resistance and even open hostility. A few remain at this place, while many achieve a measure of accommodation. A small number enter wholeheartedly into what is sometimes a painful experience of discovering their collective history and identity. The implications for pedagogy and further research are discussed.

Authors: SK Burns, PA Baker
Theme: Education, Practice

37. A Study to Investigate the Neurocognitive Mechanisms Underlying Mindfulness-Based Cognitive Therapy in Depression (MBCT)
Kate Williams, MISS, University of Manchester
Mindfulness-based Cognitive Therapy (MBCT) has been shown to be effective in
38. Contextual Factors Associated with Mindfulness in Post-Surgical Lung Cancer Patients – Insights from Real-Time Data Collection
Mariya Shiyko, Northeastern University
Mindfulness refers to one’s nonjudgmental awareness of the present moment. While it is generally studied as a global trait, mindfulness is typically conceptualized as a momentary state of awareness. The current study sought to demonstrate a novel methodology for assessing mindfulness that involved real-life and real-time assessments in the context of daily living with an aid of portable electronic devices. Moreover, we evaluated contextual factors associated with mindfulness, and assessed feasibility of real-time assessments with postoperative cancer patients. Fifty-nine patients diagnosed with early-stage lung cancer participated in a quality-of-life study. Following a hospital discharge, they responded to assessments twice daily for two weeks. Mindfulness was assessed with four questions focusing on the present state of awareness (e.g., “Am I curious of the thoughts and feelings I am having right now?”). Patients also reported on physical symptoms, quality of life, and use of pain-coping strategies (e.g., humor, denial, etc). Overall, participants demonstrated good levels of adherence. On average, they reported low levels of mindfulness combined with substantial momentary fluctuations. Heightened levels of mindfulness were noted during times of unpleasant physical symptoms, negative coping strategies, and negative affect. This work highlights the feasibility of studying mindfulness in the context of daily living, and offers insights into the nature of mindfulness and its role in physical and mental health. Researchers should take advantage of technologies to study and build mindfulness skills in the context of daily living.
Authors: K Williams, R Elliott, R Zahn, T Barnhofer, I Anderson
Theme: Clinical Science

39. Self-Regulatory Behaviors During Weight Loss: Mindfulness Matters
Brielle Paolini, Wake Forest Health Sciences
The United States is in the midst of an epidemic of obesity; thus, there is a growing need to understand the etiology of this complex disease. While there is a substantial body of literature on obesity, little research has been conducted on self-regulation. Pilot research from our lab has demonstrated that trait mindfulness is associated with more efficient processing of physiological responses to food stimuli. Our current study builds on this work, and partners with a National Institutes of Health-funded randomized, controlled clinical trial of weight loss. Functional brain networks were collected at baseline prior to the weight-loss intervention. In this paper, we will present the association between trait mindfulness and network connectivity in key areas of the brain during the active processing of food cues following an overnight fast. We will then discuss how these brain network signatures relate to real-world self-regulatory outcomes (e.g., caloric intake and weight loss)
during the weight-loss intervention.
Authors: BM Paolini, P Laurienti, WJ Rejeski
Theme: Basic Science

40. Mindfulness-Based Interventions for Expectant Mothers and Fathers in High-Risk Populations: A Literature Review and Research Proposal
Laurel Hicks, Wayne State University
Parental mental illness places infants at risk for negative biological and psychosocial outcomes. Many women and men with low socioeconomic status (SES) experience perinatal depression and anxiety, and trauma-exposed populations are particularly at risk. Mindfulness interventions with pregnant mothers indicate significantly reduced levels of anxiety and negative affect; however, trauma symptoms and mother-baby relationship variables have not been explored. Mindfulness-based cognitive therapy may be an effective intervention for low-SES, trauma-exposed, and expecting parents in reducing depression and anxiety symptomatology, and may increase attachment, reflective functioning, and parent sensitivity. This poster will propose the development of a mindfulness-based, trauma-informed intervention for expecting, high-risk parents.
Authors: LM Hicks, CJ Dayton
Theme: Clinical Science

41. Contemplative Interventions for Insomnia: A Systematic Review
Michael Goldstein, University of Arizona
While cognitive behavioral therapy for insomnia has received substantial empirical support with superior long-term outcomes over pharmacotherapy, not all cases are effectively treated, and insomnia remains a prevalent health concern. Contemplative approaches such as meditation, yoga, and tai chi may offer an alternative set of techniques for individuals who do not respond optimally to other treatments. Addressing this possibility, we conducted a systematic literature search to gather peer-reviewed original reports in English of contemplative interventions for insomnia with specific...
42. A Systematic Review of Mindfulness Interventions for Professional and Family Caregivers of Patients with Advanced Illness

Jane Givens, Harvard Medical School and Hebrew Senior Life
Jennifer Tjia, Quantitative Health Sciences, University of Massachusetts Medical School

Mindfulness interventions are known to reduce stress and improve well-being for patients with chronic illness. The extent to which mindfulness interventions also benefit professional and family caregivers is unclear. No systematic review addresses family caregivers, and only one systematic review from 2009 addresses mindfulness for health professionals. Further, it is unclear whether mindfulness interventions have been studied for vulnerable caregivers of patients with advanced illness (i.e., seriously ill patients who are unlikely to be cured and at high risk of dying). To address these gaps, we conducted a systematic literature review for mindfulness interventions for professional and family caregivers. We will present a review of the extent to which published studies evaluate mindfulness’s impact on psychological, emotional, and physical measures of well-being among caregivers, and the extent to which interventions have targeted caregivers of patients with advanced illness.

Authors: MR Goldstein, LM Knowles, RR Bootzin
Theme: Clinical Science

43. The Efficacy of Mindfulness-Based Interventions in Primary Care: A Meta-analytic Review

Marcelo Demarzo, Federal University of Sao Paulo, UNIFESP
Javier García-Campayo, University of Zaragoza
Jesús Montero-Marin, University of Zaragoza

Mindfulness-based interventions’ positive effects in diverse clinical and nonclinical populations have been reported. Primary care is a key health care setting, and an effective intervention designed for primary care could benefit countless people worldwide. Although meta-analysis about mindfulness has become popular, little is known about its efficacy in primary care. Our objective was to conduct a meta-analysis of mindfulness-based interventions addressing primary care patients. Overall effect size estimates suggest that mindfulness was large effective for improving health outcomes in the overall sample, although heterogeneity was high, probably due to the diversity of outcomes. This effect size was robust and unrelated to publication bias. Although the number of trials applying mindfulness in primary care is still limited, our results suggest that mindfulness is a promising intervention for primary care patients, and that future research protocols addressing mindfulness implementation in primary care are in great need.

Authors: SB Goldberg, AC Del Re, WT Hoyt, JM Davis
Theme: Clinical Science

44. The Secret Ingredient in Mindfulness Interventions: A Case for Practice Quality Over Quantity

Simon Goldberg, University of Wisconsin-Madison

As mindfulness-based interventions become increasingly widespread, interest has grown in better understanding which features of these treatments produce beneficial effects. The present study examined the relative contribution of mindfulness practice time and practice quality in predicting psychological functioning (negative affect, emotion regulation, quality of life, mindfulness). Data were drawn from a randomized clinical trial of mindfulness training for smokers, and assessed outcomes at post-treatment and five-month follow-up. Mindfulness practice quality was measured weekly over the course of treatment, and multilevel modeling was used to estimate trajectories of change in practice quality. The measure of practice quality was shown to be valid and reliable, and predicted psychological functioning at both post-treatment and follow-up, even when controlling for practice time. Practice time predicted outcomes at post-treatment but not at follow-up. Results support the importance of practice quality as a relevant aspect of mindfulness interventions.

Authors: AT Than, JF Santoyo, C Kerr, E Flynn
Theme: Clinical Science

45. Building a Neural Model for Mindfulness’s Mechanism of Action in Irritable Bowel Syndrome (IBS) and Other Chronic Functional Disorders

Arison Than, Brown University

Mindfulness is effective in reducing suffering in irritable bowel syndrome (IBS) and other functional pain disorders. In these disorders, pain is partially maintained by maladaptive coupling between brain areas encoding pain sensations and brain areas supporting the sense of self, suggesting that in these patients, normally innocuous sensations are encoded as painful and salient to the patient’s sense of self. This view is in line with studies showing that mindfulness reverses this coupling by decreasing coherence between pain and self-related regions. In the current study, data in a sample of IBS patients at baseline entering a mindfulness intervention are presented in order to build a neural model for analyzing the effects of mindfulness. These data show that coupling between pain and self-related regions is associated with increased symptom severity. Presented in conjunction with qualitative patient reports, these data provide a mechanistic basis for understanding how mindfulness reduces suffering.

Authors: AT Than, JF Santoyo, C Kerr, E Flynn
Theme: Clinical Science
48. Coping Strategies, Positive Affect, and Binge Eating Disorder: Implications for Mindfulness-Based Approaches to Promote Flourishing Mental Health

Angela Lee-Winn, Johns Hopkins Bloomberg School of Public Health

Experience avoidance — the tendency to avoid unwanted thoughts/behavior, e.g., rumination — is negatively associated with the concept of mindfulness and considered maladaptive. Binge eating disorder has been conceptualized as a form of experiential avoidance, and a positive state of mind is a common result of practicing mindfulness, suggesting potential benefits of using mindfulness for simultaneously preventing binge eating disorder and promoting positive affect. Our study utilized a nationally representative cross-sectional sample of adolescents aged 13 to 18 years to assess associations between coping, positive affect, and binge eating disorder. Our findings suggest that self-isolation, wishful thinking, and aggression are maladaptive coping strategies that are negatively associated with positive affect and positively associated with lifetime binge eating disorder among adolescents. Future studies should evaluate mindfulness-based interventions as a means of cultivating nonjudgmental awareness of one’s current states to decrease maladaptive coping strategies and to increase adaptive coping strategies for adolescents’ flourishing mental health.

Authors: A Lee-Winn, T Mendelson
Theme: Other

49. Compassion Mind Training for Relatives of Cancer Patients

Christina Andersson, Karolinska Institute

This is the first study on compassion in Sweden, conducted at the Karolinska Institute, department of clinical neuroscience, in the fall of 2012. The aim of the study was to evaluate an eight-week program in Compassion Mind Training (CMT). In this pilot study, eight relatives of cancer patients received psychoeducation and interventions based on imagery exercises focusing on compassion. Self-evaluation scales were used as measurement tools. Questions the study wanted to answer were: How will symptoms of depression, anxiety, stress, and quality of life change after a course in CMT? How will the degree of compassion change after CMT? The study showed significant results on improvement of depression and quality of life. Half of the participants had a reliable improvement in stress symptoms and self-compassion. A qualitative approach was done, and participants reported that after practicing compassion training they experienced an “inner safeness” in knowing how to handle difficulties in life.

Authors: C Andersson, S Vioti, S Einhorn, W Osika
Theme: Clinical Science

51. The Practice of the Examen by Healthcare Workers

Mary Walsh Roche, New York University Department of Integrative Health Programs

Today’s health care environment can be fast paced and stressful. It is important for caregivers to develop skills to care for their own physical, emotional, social, and spiritual well-being. Often people do not seek to learn these skills until signs of burnout are evident. This paper will research the effectiveness of an employee training program in the practice of a modified form of the Ignatian Examen, a prayer exercise developed by St. Ignatius Loyola. Participants will agree to practice the modified Examen exercise for 15 minutes each day for a month. Participants will receive daily self-guided Examen meditations via e-mail as reminders. Participants will be encouraged to journal about their experiences. Pre- and post-assessments of burnout, stress, and well-being in both qualitative and quantitative measurements will be performed. Through reflective practice, it is hypothesized that the Examen can be a useful exercise for health care workers no matter what their spiritual tradition.

Authors: MW Roche
Theme: Clinical Science, Practice


Frank Anderson, Foundation for Self Leadership

This presentation will introduce the Internal Family Systems Model of Therapy, which is part of a movement towards a more collaborative, nonpathologizing environment that honors each client’s unique intuitive wisdom (called “self”). From the Internal Family Systems perspective, a person’s mind is not unitary; instead, it contains an ecology of discrete subpersonalities or “parts” that naturally relate to one another. When wounding occurs, parts can take on rigid protective roles or carry burdens from the past and become exiled. This presentation will describe the Internal Family Systems protocol, and show how meditation and self-compassion are core components of healing. It will discuss how certain practices interrelate with the internal attachment work
and unburdening process that are necessary for healing the wounds of trauma. Finally, it will discuss how Internal Family Systems is utilized in a broad range of nontherapeutic settings, and serves as a paradigm for living a loving, compassionate, and self-led life.

Authors: F Anderson
Theme: Clinical Science

54. Mindfulness-Based Behavior Change: A New Model for A New Health Care System
Samara Serotkin, Focus and Thrive, PLLC
Behaviors can be difficult to change. Even the most well-intentioned efforts can fail to gain traction, and people find themselves discouraged by a long history of failed attempts to make real change. Too many people die of diseases that could have been prevented if they had been able to change some basic behaviors, like improving eating habits, quitting smoking, etc. Mindfulness practice can be used to support health-related behavior change in a way that is sustainable, accessible, and truly life changing. Mindful eating practice alone has been shown to help people lose weight, but it’s only the beginning. Currently, there is a push for health care providers to work together across disciplines. This provides a unique opportunity for mindfulness practice to be infused throughout a person’s health care experience. This could lead to lower costs, more effective interventions, and better mental health for both patients and providers.

Authors: S Serotkin
Theme: Clinical Science

55. Addiction from a Biobehavioral Psychosocial Perspective: Using Mindfulness, Cognitive-Behavioral Therapy, and Motivational Interviewing to Understand and Treat Addictive Behaviors
Justin Watts, NCC, The Pennsylvania State University
Professionals involved in treatment provision, education, or research regarding substance-use disorders will understand the complexity of addictive disorders through a holistic biobehavioral, social, and psychological perspective. Supporting research will establish and define an integrative model that includes mindfulness strategies, cognitive behavioral techniques, and motivational interviewing techniques as a supportive strategy to effectively work with this population.

Authors: J Watts
Theme: Clinical Science

56. Evaluation of the Effectiveness of the Program of Mindfulness-Based Relapse Prevention as an Assistant Strategy to the Treatment of Tobacco Dependence
Isabel Weiss, Universidade Federal de São Paulo
Treatments based on cognitive-behavioral therapy, including relapse prevention, have become standard for smoking cessation in Brazil and many other areas of the world yet scientific advances are still needed. Mindfulness-based approaches have more recently begun to be assessed and implemented for the treatment of addiction. The Mindfulness-Based Relapse Prevention program, which integrates mindfulness practice with cognitive therapy approaches, has shown promising preliminary results in previous studies. The purpose of the current study is to evaluate the effectiveness of the Mindfulness-Based Relapse Prevention program as an adjunct in the standard smoking cessation treatment instituted by the Ministry of Health in Brazil. The study is a randomized clinical trial, with 51 patients diagnosed with nicotine dependence. Assessments are administered pre-intervention and post-intervention. This initial study will evaluate the feasibility of Mindfulness-Based Relapse Prevention in the context of the Brazilian Public Health system as a supplemental treatment on craving and smoking cessation.

Authors: VV Barros, S Bowen, MMP De-marzo, EH Kozasa, AR Noto
Theme: Clinical Science

57. Adaptation of the Mindfulness-Based Relapse Prevention Program for Chronic Users of Benzodiazepines
Viviam Barros, Universidade Federal de São Paulo
Benzodiazepines (BZD) are the most prescribed psychiatric drugs in Brazil. Their chronic use may lead to tolerance, dependence, and abstinence syndrome when the use is interrupted. Mindfulness-based relapse prevention (MBRP) helps to reduce abstinence symptoms for many substances but has never been tested for BZD dependence. To adapt the program, we used data from a feasibility study performed by our group indicating that chronic BZD users show greater levels of thought rumination, differing from other substance users regarding the absence of craving. We then replaced the MBRP techniques aimed at cravings for techniques focusing on thought rumination and acceptance, and recorded all sessions to check for adequacy of adherence. They reported that the practices were adequate to help them with insomnia, and that they could include the practices in everyday life. This adaptation provides information about the adequacy of MBRP for patients with BZD dependence during tapering of BZD.

Authors: VV Barros, S Bowen, MMP De-marzo, EH Kozasa, AR Noto
Theme: Clinical Science

58. Effects of a Meditation-Based Program Adapted for Industry (PROGRESS): A Crossover Design Study
Elisa Kozasa, Hospital Israelita Albert Einstein
There is an increasing interest in reducing stress in industry. We evaluated a stress reduction program adapted for industry with the support of the Brazilian Social Service for Industry (SESI). Because of time constraints in the workplace, we developed eight short, hour-long classes. Groups A and B were evaluated before the intervention (T1), after eight weeks (T2) and after 16 weeks (T3). After T1, only group A received the intervention. After T2, group B received the intervention and group A
59. Serving Collaborative Work Through Conscious Communication
Anne-Claire Museux, Réseau de Collaboration sur les Pratiques de Collaboration Interprofessionnelle

Collaboration based on clear and open communication is essential to quality care delivery. It is also known that a better conscience of self and others is important to invite collaboration. However, a lack of studies linking conscious interpersonal communication and collaboration suggests that we learn more about this innovative approach. Our study describes the effects of nonviolent or conscious communication training in collaborative practices in primary care settings. Nine participants from five disciplines learned in a session to apply a new consciousness in their exchanges using empathy, non-judgment, and mindfulness. The pre/post assessments showed participants heightened their consciousness of self and developed more empathy towards others. Their insights on the training’s effects on their attitudes and its acceptability in primary care settings were discussed in a focus group. Our theoretical proposition aims to understand conscious communication, share the study results, and explore why it is crucial to continue research on the subject.

Authors: E Careau, S Dumont
Theme: Education

60. Dancing (and Laughing) with Habits
Niels Hansen, Center for Research in Existence and Society, University of Copenhagen

Effects and interactions of mindfulness, humor, and movement meditation in a group intervention to support sustainable, healthy, lifestyle changes and weight loss were measured in overweight citizens. In this cross-disciplinary study, an intervention development phase involving qualitative methods was followed by an RCT effect trial. Fresh trial data show significant improvements in body mass and quality of life at 12 months—a pragmatically important finding as lifestyle interventions have generally been found ineffective on timescales longer than a few months. Experiences and interactions in the mindfulness groups were recorded and analyzed using classical Buddhist, cognitive, and philosophical frameworks. A number of hypotheses on the dynamics and effective facilitation of “low tension” habit change emerged, to be tested in further studies.

We present these, and show how Bergson’s organic phenomenology provides a useful framework for understanding how group dynamics, humor, physical movement, and mindfulness may interact with habits, affirming, dancing, and experimenting with them rather than suppressing.

Authors: NV Hansen
Theme: Clinical Science

61. Mindfulness in Active Learning for Medical Education
Jorge Biolchini, PUC-Rio

The cognitive sciences have been significantly contributing to modifying the education paradigm towards active learning methods. Instead of focusing on content, this approach is student-based, and emphasizes learning processes for acquiring knowledge, skills, and attitudes. Teaching and practicing mindfulness is convergent with this scenario (and might be made easier by it), and may contribute to support the cognitive processes involved. Medical education is a field that has been strongly modified in this direction, with growing adoption of this learning approach. To train teachers in these new methodologies in Brazil, a 360-hour specialization course for health professionals is being given this year. The present study proposes to investigate the effects of teaching mindfulness during the course. The student cohort will perform a pretest about their personal experience and knowledge of mindfulness, and will be followed up with periodic evaluation through qualitative and quantitative assessment methods. We aim to understand mindfulness teaching’s influence over student learning, and its transportability to professional practice and daily life.

Authors: J Biolchini
Theme: Education

62. Induced Mindfulness and Trait Self-Compassion Interactively Predict Medical Student Compassion in Response to Difficult Patient Vignettes
Antonio Fernando, Psychological Medicine, University of Auckland

Compassion is expected by patients and professional bodies. However, compassion is difficult to sustain over time and fatigue is common; interventions that enhance compassion and identify the subgroups that respond to interventions are needed. In the study, 80 medical students completed trait measures and were randomized to mindfulness or control conditions before rating five difficult patient vignettes and completing a behavioural measure. Trait self-compassion x condition ANCOVAs controlling for desirability showed that the induction was not unilaterally successful in increasing compassion, although it did increase offers to help after the study. Trait self-compassion predicted greater liking and less blame for patients. As importantly, induced mindfulness interacted with trait self-compassion in the prediction of both attitudes (e.g., liking and caring for patients) and behavior. Brief mindfulness interventions may be a double-edged sword in seeking to enhance compassion, showing benefits for some but not all persons.

Authors: A Fernando, H Yoon, K Skinner, N Consedine
Theme: Clinical Science, Education

64. Impact of a Buddhist Meditation Course on College Students’ Well-Being
Jennifer Penberthy, University of Virginia School of Medicine

We evaluated the impact of a large Buddhist meditation class on multiple characteristics of 230 college students.
This course included twice-weekly lectures about meditation and a weekly experiential meditation lab. The primary aims of this study were to evaluate changes over time in measures of well-being and whether these changes were mediated by mindfulness. Students were surveyed at the beginning, middle, and end of the course. Variables that showed significant changes over time or trends towards significant changes included increased meaning, self-compassion, and positive coping; and decreased anxiety, negative emotion, and negative coping. We tested whether changes over time in these variables were mediated by level of mindfulness, and found that mindfulness was a significant predictor of meaning, self-compassion, anxiety, and negative emotion. These findings suggest that positive impacts of meditation can be achieved for large numbers of students via a traditional college course.

Authors: JK Penberthy, J Schorling, S Williams, J Hook, D Germano, K Schaeffer, N Le
Theme: Basic Science, Education

65. Changing Minds: A Pilot Study of School-Based Mindfulness Training for At-Risk Adolescents

Tracy Dennis, Hunter College of the City University of New York
Emily Feeney, Brigham and Women’s Hospital

Disadvantaged adolescents are at risk for a range of negative cognitive, emotional, and mental health outcomes. A growing body of research suggests that mindfulness-based interventions promote positive social-emotional and educational outcomes in these youth. This pilot study examined how nine weeks of brief mindfulness training (three minutes at the beginning of each class) affected the attention, anxiety, coping, emotion regulation, attendance, and grades of 63 at-risk high school students randomly assigned to mindfulness training compared to placebo (just sitting quietly) and no-training control conditions. An independent group of students acted as research assistants, aiding in the administration of the experiment and assessment of outcomes. The mindfulness condition was associated with greater social-emotional resilience as compared to the placebo and control conditions. Moreover, students who acted as research assistants showed a trend for improved grades over the course of the semester. Opportunities and challenges for school-based mindfulness training in at-risk youth, and the integration of mindfulness into academic curricula, are discussed.

Authors: TA Dennis, A Simmons, L O’Toole, D Vago, S Finley
Theme: Education

66. Reducing Stress Among Urban Middle-School Students Through Mindfulness Instruction

Erica Sibinga, Johns Hopkins School of Medicine

Many urban youth experience significant and unremitting negative stressors. We explored the potential for mindfulness-based stress reduction (MBSR) to ameliorate the negative effects of stress among middle-school, public-school students. Fifth through eighth graders at two Baltimore City Public Schools were randomly assigned to an MBSR or health education (Healthy Topics, or HT) program. Self-report data were collected at baseline and post-program. Using t-tests, data analysis compared MBSR vs. HT classes. Three hundred and two students were in MBSR and HT classes. The groups were comparable at baseline. Post-program, MBSR students had significantly higher levels of mindfulness, and lower levels of stress, depression, negative affect, negative coping, posttraumatic symptom severity, guilt, fear, hostility, and self-hostility. These findings support the hypothesis that mindfulness instruction enhances mindfulness, reduces stress, and improves psychological functioning among urban middle-school students.

Authors: EMS Sibinga, L Webb, S Ghazarian, JM Jennings, JM Ellen
Theme: Basic Science, Education

67. The Effects of a Mindfulness-Based Course for Students

Jungmo Kim, Yeongnam University

Mindfulness in education is now considered one of the most important tools for cultivating the personal development of students. Eighty students participated in a humanities class. The curriculum was introduced into two parts: a theory-based lecture and a practical learning of mindfulness, which was based on mindfulness-based cognitive therapy. The same pre- and post-test in the mindfulness course was compared to another experiential course. The results showed that the students in the mindfulness course increased in mindfulness, interpersonal relationships, and in psychological well-being compared to students in the experiential course. Further, the mindfulness course had more positive effects on mental health, such as anxiety and depression. These results suggest that mindfulness could be effectively applied in a large course led by one teacher. The specific method of teaching mindfulness in education will be discussed.

Authors: JM Kim, S Lee
Theme: Basic Science, Education

68. Study Design of a Mindfulness Training Program for Improving Health, Well-Being, and Interpersonal Relationships of First-Year College Students

Kamila Dvorakova, Pennsylvania State University
Moe Kishida, Pennsylvania State University
Jacinda Li, Pennsylvania State University

College students face increased stress from various developmental, social, and academic demands. Mindfulness-based practices may serve as a useful mechanism to promote stress resilience and effective emotion regulation, which may facilitate the transition to college. The upcoming study will involve the delivery of an eight-session mindfulness program to 100 first-year undergraduate students at Pennsylvania State University. Using a randomized waitlist control design, the study will employ a college-adapted version of the Learning to BREATHE curriculum — an evidence-based, universal mindfulness program originally developed for adolescents — and evaluate its effects on students’ moment-to-moment and daily
patterns of stress exposure and reactivity, as well as overall health, well-being, and interpersonal relationship qualities. In addition to summary assessments at baseline, post-intervention, and three-month follow-up, three 8-day bursts of ecological monetary assessments (EMA) will be employed to capture moment-to-moment and day-to-day variability in students’ symptoms, affect, and behaviors as a result of participating in the intervention. Ecological momentary intervention (EMI) will also be examined, with 25 randomly selected intervention group participants receiving text message reminders that prompt out-of-class practice and application of mindfulness practice throughout the day. The potential added utility of using EMI to enhance the benefits of a mindfulness program will be evaluated.

Authors: J Li, K Dvoráková, M Kishida, M Greenberg, S Elavsky
Theme: Education

69. Incorporating Contemplative Pedagogy in the Israeli Education System
Ofra Mayeless, University of Haifa
This presentation describes a process of creating an agenda for incorporating contemplative practices in the Israeli education system to promote meaningful learning, compassion, and human flourishing. This was done in the Israeli Pedagogical Secretariat — the central unit within Israeli ministry of education that is responsible for pedagogical affairs. Several goals guided the construction of the program: augmenting the capacity for mindfulness in the present e.g., quieting and focusing the mind, identifying automatic reactions, broadening one’s scope of autonomy and compassion, and exploring life’s big questions. We incorporated a variety of situations, e.g., training the mind in “quiet time,” meditation on a subject matter, contemplation on various values and the big questions. The program is implemented in several schools and in several preservice and in-service programs of teacher’s education. The lecture will present this work in progress at the conceptual and applied levels, and the insights we gained so far.

Authors: O Mayeless, S Barzilay
Theme: Education

70. Teens Diagnosed with Autism-Spectrum Disorders Improve Self-Awareness, Emotional Regulation, and Social Awareness Through Heart-Focused Instruction
Dorothy Lucci, Aspire/Massachusetts General Hospital
Preteens with a variety of diagnoses (e.g., autism-spectrum disorder, anxiety disorder, attention-deficit-hyperactivity disorder) in a public junior high school were instructed with our “Science of Me” curriculum. This curriculum focuses on the whole child: heart, mind/brain, and body, and on improving self-awareness, stress management, and social competency. An integral part of this curriculum is the utilization of HeartMath’s emWave Desktop, a stress management software tool that uses a finger sensor to collect heart rate and heart-rate variability. By using this technology, students were able to visually notice how their thoughts and emotions affect their heart and their autonomic nervous system. They also learned HeartMath’s specific techniques (e.g., Freeze Frame) to elicit positive feelings and a more coherent heart rhythm. In this presentation, the positive impact of the Science of Me curriculum and HearthMath’s emWave on improving the self-awareness, stress management, and social competency of these students will be presented.

Authors: D Lucci
Theme: Clinical Science, Education

71. Mindfulness and Preschoolers with Special Needs
Dorothy Lucci, Aspire/Massachusetts General Hospital
Rachel Robb Avery, Private Practice and Maine Medical Center
Lauren Weeks, F.U.S.E. Program
Preschool children with special needs (e.g., autism spectrum disorder, attention-deficit-hyperactivity disorder, language delay, and others) benefited from a mind, body and heart approach to instruction. We utilized a new curriculum, Think Smart Feel Good (TSFG) that has as its core tenets: mindfulness, cognitive-behavioral techniques, positive psychology, and yoga. Children discovered that they can be their own “Thot Boss” by changing their negative thoughts (“Booboo Thots”) to positive thoughts “Smiling Thots”. They explored and enjoyed learning about mindfulness (e.g., mindful listening, eating, coloring, and moving) and the opposite - mindlessness in their everyday lives. They demonstrated improvement in emotional-regulation, social, collaborative play, and communication skills. As children learned a new concept/technique so did their parents; thus carry over and generalization into the children’s family occurred. In this presentation we will present data that demonstrates the positive impact of this curriculum in the lives of the children and their families.

Authors: D Lucci, L Weeks, RR Avery
Theme: Clinical Science, Education

72. The Effect of a Meditation Group for Educators Working with Children with Autism
Gilbert Tippy, Rebecca School
This presentation will focus on a study of a voluntary mindfulness-meditation support group at The Rebecca School in New York City, whose focus is a relationship-based intervention for children and young adults on the autism spectrum. For 16 weeks, teachers, clinicians, and administrative staff learned about and practiced mindfulness meditation. Before- and after-assessments of the group member’s perceived quality of life were administered. A large control group of other staff members in the school who received talk-based or other support groups will be compared. The session will also touch upon the connection between mindfulness and the relationship-based model of the school.

Authors: G Tippy
Theme: Clinical Science, Education

73. Social and Emotional Learning (SEL) and Mindfulness at Phuket International Academy Day School (PIADS): A Case Study
Krysten Fort-Catanese, Phuket International Academy Day School/Thanyapura
This presentation highlights the mission of Phuket International Academy Day School (PIADS), a three-program International
Baccalaureate World School in Phuket, Thailand, and our aspiration to create a school culture where both IQ and EQ are given equal credence in developing the minds, bodies, and hearts of our students and teachers. Some points of this presentation will include the convergence of neuroscience and contemplative traditions, and how this is beginning to take shape in classrooms around the world in developmentally appropriate ways. This presentation will highlight our school’s approach in focusing on the whole child as we help to bring the International Baccalaureate’s “Learner Profile” to life. As the phrase goes, “Live it, don’t laminate it!” This presentation will also highlight our schoolwide practices of “Time-In,” council, and our partnership with the Mindfulness in Schools Project in the United Kingdom.

**Authors:** K Fort-Catanese  
**Theme:** Education

---

**74. Teaching Mindfulness to Social Workers: Transferring a Personal Contemplative Practice to Therapeutic Relationships**  
**Annie Devault, Université du Québec en Outaouais**

Contemplative pedagogy is used in several disciplines. This paper has two objectives: (1) to present the integration of some mindfulness notions in an undergraduate university classroom with social work students; and (2) to examine how the abilities acquired by the practice of mindfulness as a student can be transferred to professional therapeutic relationships. The first objective will be met by presenting an experiment conducted in 2013 with 20 social work students. The content of the course (self-care/awareness, reflexivity, working with emotions, etc.), the assignments asked to students, and the comments made by students at the end of the course will all be discussed. The second objective will be met by presenting studies trying to identify specific abilities relating to mindfulness in the context of helping relationships. Several questions will be offered to participants in order to encourage a discussion around the transfer of an individual contemplative practice to a therapeutic relationship.

**Authors:** A Devault  
**Theme:** Education

---

**75. Bringing Mindfulness to the Page: Ways of Cultivating Creativity, Fearlessness, and Compassion in the Writing Classroom**  
**Ranjini Philip, Zayed University**

As teachers, how do we rouse creativity, fearlessness, and compassion in the writing classroom? How do we teach with presence, energy, and joy? How do we alleviate tiredness and exhaustion and uplift the energy of the classroom? In this session, drawing from my experiences as a creative writing instructor at the University of Toronto’s School of Continuing Studies and as an Associate Professor of English at Zayed University in Dubai in the United Arab Emirates, I will share some of the challenges and joys that I’ve faced as a teacher and creative writer. I will discuss some of the specific techniques that I use in the writing classroom, such as the practices of journaling, beginning anew, deep compassionate listening, walking and sitting meditation, spaces of mindfulness and silence, music, and chants.

**Authors:** RG Philip  
**Theme:** Education

---

**76. Bhutanese Teachers’ and Pupils’ Perceptions of Gross National Happiness in Education for Sustainable Development**  
**Päivi Ahonen, University of Oulu**

The global community has shown much interest in Bhutan’s development policy of Gross National Happiness (GNH). The reasons for the interest are primarily the world leaders’ efforts to find ways to move towards sustainable well-being and happiness by avoiding unsustainable development patterns. The sustainable well-being movement includes initiatives by educators to develop models of education for sustainable development. How is Bhutan implementing the GNH-based development principles in its education sector? The doctoral studies of the writer analyze the process of GNH-based education in Bhutan, implemented after the teachers received GNH-teacher training according to the GNH-training manual prepared by the Ministry of Education. The six units of the training manual, including meditation and mind training, give a systematic background for teachers to develop GNH-based teaching learning practices.

**Authors:** P Ahonen  
**Theme:** Education

---

**77. The Benefits of Integrating Mindfulness Awareness Practices with Social-Emotional Learning in Elementary Public Schools in South Brazil**  
**J Ovidio Waldemar, Porto Alegre Family Institute**

We present the development and application of a combined mindfulness and social and emotional learning program developed over the past seven years in Porto Alegre, South Brazil. Our research showed that fifth-grade public students who received the 12 session-program compared with a control group had significant improvement in several aspects of mental health as measured by the Strengths and Difficulties Questionnaire, and also in total quality of life as measured by the Youth Quality of Life-Research instrument.

**Authors:** JO Waldemar  
**Theme:** Education

---

**78. Creating Contemplative Studies in the American Southwest**  
**Andrew Fort, Texas Christian University  
Vanessa Miller, Texas Christian University**

How contemplative studies can enhance liberal arts education, leading to more knowledge of and critical reflection on both self and culture(s), is being explored in numerous universities throughout the country, including the apparently “traditional” Southwest. Recently, a group of faculty from diverse disciplines (religion, anthropology, cognitive psychology, dance, nursing, and counseling) at Texas Christian University has been developing contemplative studies both on campus and in the region at large, in and beyond the classroom. We would like to share how we are developing this program, to inform others, and to engage in mutual learning with those also involved in this project.

**Authors:** A Fort, V Miller, M Dennis  
**Theme:** Education
80. Attachment Theory and Buddhist Psychology: Theoretical Foundations for Mindfulness-Based Interventions in Social-Emotional Education Programming
Michelle Beatch, Simon Fraser University
A theoretical examination of attachment theory and Buddhist psychology will be presented relative to the integration of mindfulness-based interventions in social-emotional educational programming. An argument is made that attachment theory highlights the context within which children receive mindfulness-based interventions, and the importance of parents/caregivers and teachers in children's social-emotional development is emphasized. The complementary nature of attachment theory and Buddhist psychology will also be presented, and the implications for current mindfulness-based social-emotional educational programming will be discussed.
Authors: M Beatch
Theme: Education

81. "Disenchantment" of the Category of Spirituality in Education
Marta Znaniecka, University of Gdansk
The category of spirituality has been marginalized in Western educational theory and practice. At the same time, it has been considered as an inalienable part of educational reflection. By marginalization, I mean that this category has no practical applicability, which it had in antiquity as "the care of the self." In my research, I have investigated the process of the "disenchantment" of spirituality by following its trail in modern pedagogical texts, going as far back as the works of Jean Jacques Rousseau. The discourse on spirituality in 19th-century pedagogical texts created the tradition of cultivating a form of spirituality expressed in moral sermons, but not in experience. There, it was perceived as a mysterious category, lacking its own procedures and thus escaping theoretical and practical description. Recently, however, there have been visible attempts to incorporate spirituality into education that have been made in new ways and have resulted in new consequences.
Authors: M Znaniecka
Theme: Education

82. Somatic Compassion Training
Willa Miller, Harvard Divinity School
Compassion meditation studies to date have largely utilized cognitive techniques such as recitation of phrases and conceptual thinking about self and others as the method of training. Yet in the Buddhist context, a variety of practices simultaneously emphasize bodily awareness as a doorway to developing stable states of compassion. These practices draw on the Indo-Tibetan Tantric notion of a "subtle body," which is an integrated view of a complex subtle physiology that functions in constant relationship to our lived experience of the physical body and the mind. Not only do human emotions and thoughts manifest in the body; bodily states immediately influence emotions and thoughts. This makes the body itself an effective entry point for the development and transformation of thought and emotion, including the cognitive-emotional state of compassion. This paper will indicate the need for increased attention to somatic awareness in the development of compassion trainings.
Authors: WB Miller
Theme: Other, Practice

83. Contemplative Inquiry into the Experience of Cultivating and Putting Self-Compassion into Practice
Mary Younger, MY Counselling and Psychology Services LLP
Research has identified key components of self-compassion (kindness, common humanity, mindfulness), demonstrating clear benefits as a clinical intervention and highlighting its important role in combating therapist burnout and contributing to increased self-care, resilience, and well-being. This research adopts a first-person approach to explore the lived experience of becoming self-compassionate within personal, professional, and spiritual contexts. Research activity will comprise primarily of contemplative inquiry, with contributions from reflexive practice and autoethnography. The intention is to deeply investigate the inner and outer phenomenology of self-compassion, including resistances, hindrances, and enablers, and exploring how this practice weaves into all areas of life. The rationale for adopting a first-person approach is to contribute to existing self-compassion research by providing an additional perspective to those of traditional third-person quantitative and qualitative approaches. Indeed, it could be argued that self-compassion cannot be fully explored without immersion into the inner life, through the science of contemplative inquiry.
Authors: MC Younger
Theme: Basic Science, Philosophy/Humanities

85. Nagarjuna
Christian Thomas Kohl, Tibet Institute, Rikon, Switzerland
The Indian philosopher Nagarjuna (2nd century BC) is known in the history of Buddhism mainly by his keyword sunyata. This word is translated into English as the word "emptiness". This translation and traditional interpretations create the impression that Nagarjuna declares the objects as empty or illusionary or not real or not existing. What is the assertion and concrete statement made by this interpretation? That nothing can be found, that there is nothing that nothing exists. Was Nagarjuna denying the external world? Did he wish to refute that which evidently is? Did he want to call into question the world in which we live? Did he wish to deny the presence of things that somehow arise? My first point in this presentation will be the refutation of this traditional translation and interpretation.
Authors: CT Kohl
Theme: Philosophy/Humanities

86. Having It Both Ways: Reconciling the Buddhist Nonself and Cultural Identities
Chaya Bhuvaneswaran, University of Massachusetts
The notion of the nonself (anatta) in Buddhist psychological models that inform current mindfulness training and practice is arguably one critical source of the power of this behavioral intervention to foster...
moment-by-moment awareness, nonjudgment, and a lack of craving or identification with ephemeral objects. As described in the Nikayas, a “self” that would dictate “This is mine, this I am, this is my self” is a letter like any other set of perceptions and thoughts driving the meditator away from an effortless awareness. Yet in daily life, for monks trained in Buddhism in Southeast Asia and elsewhere, cultural identities have mattered. While unity beyond temporal and provincial conceptions of “self” is important, as through compassion (metta), the community and affiliations experienced through a cultural lens can lead to right views and right actions. In this paper we explore how it might be possible to “have it both ways” by embracing the concept of nonself while using it to gain awareness, fluidity, and humorous engagement with one’s “own” cultural identity and that of others.

Authors: CG Bhuvaneswar, B Burke, M Yildiz
Theme: Other, Philosophy/Humanities

87. Towards the Third Wave of Rational Choice Theory: From Traditionally Omniscient to Behaviorally-Bounded to Mindfully Meta
Chase Treisman, Arizona State University, School of Public Affairs

“Rational” choice is central to the human quest to know the truth of social-natural reality and govern its well-being. The first wave and still dominant paradigm of “traditional rationality” emerged from the Enlightenment Era’s enthusiasm for positivism and economics; it normatively posits “how people should choose.” The second wave of “bounded rationality” emerged as a counter-paradigm from the mid-twentieth century’s turn toward behaviorism and cognitive psychology; it empirically demonstrates “how people do choose.” This presentation elaborates the basic assumptions of these paradigms in order to propose a third wave of “mindful meta-rationality” grounded in contemporary research in contemplative science and neuropsychology that provide evidence for “how people can choose.” Mindful meta-rational choice theory can offer a vision of human choice and well-being that is more compatible with the psycho-somatic potential of humans that not only further challenges the assumptions of traditional rational choice theory, but agitates that of boundedly rational choice theory.

Authors: C Treisman
Theme: Philosophy/Humanities, Other

88. “I tie my Hat - I crease my Shawl”: Emily Dickinson and the Feeling of not Being a Self
William Rubel, University of British Columbia

The American romantic poet Emily Dickinson, who often wrote of the buzz of silence, attests to a truly curious absence of self. In one of her odd letters, she refers to “the noiseless noise in the orchard that [she] let persons hear.” In one poem, she describes treating “life’s little duties” as “infinite” and doing them “with scrupulous exactness — To hold our Senses — on.” In another, she speaks of feeling her life with both her hands “to see if it was there,” pushing her dimples to see if it might bring “conviction back of me.” Arguably, romantic poetry focuses on how commonly we experience this strangely familiar sense of not being a self. Keats has “no identical nature.” He sees the sparrow out his window and “take[s] part in its existence and pick[s] the Gravel.” Blake declares knowledge a “false body” or “incrustation” that poetry annihilates. If silence is poetry, and both annihilate the self, how can we read as contemplators rather than as knowers, or as cogito (Spinoza) rather than cogito (Descartes)?

Authors: W Rubel
Theme: Philosophy/Humanities

89. Understanding Lovingkindness Meditation
Kimberley Sheffield, University of Northampton

A PhD research project exploring lovingkindness meditation will be presented. The overarching aim of the project is to understand the effects of the practice, which is explored through two main objectives: (1) examining how lovingkindness is defined by practitioners, its outcomes, and the perceived relation to other forms of meditation; and (2) examining the cognitive and social effects in comparison to other forms of meditation and a control group, in an experimental setting. The PhD project is motivated by the lack of research conducted on lovingkindness meditation, inconsistencies in how the practice is explored within research, and potential implications of the specific focus of the practice on social connectedness and relationships. The rationale, stages of research, and findings from Stage 1, as well as a set of interviews with experienced practitioners, will be discussed. Themes include perceived effects and importance of the practice to practitioners, and how lovingkindness relates to other meditation practices.

Authors: K Sheffield, C Roe, A Gordon-Finlayson, G Smith
Theme: Practice

90. Habits, Practices, and Rituals for Cultivating a Contemplative Mind
Jan Stanley, The Practices of Well Being

New articles, books, and research make this an exciting, yet potentially overwhelming time for practitioners of contemplative studies. In this presentation, we will explore a framework for cultivating contemplative mind using habits, practices, and rituals. Habits are behaviors performed so frequently as to become almost automatic. Examples of contemplative habits include sitting or walking meditation, reading, and journaling. Practices are regularly performed behaviors designed to increase understanding and/or skill. Examples of contemplative practice areas include mindfulness, lovingkindness, gratitude, and optimism. Rituals are actions, symbolic or practical, that help to align our behaviors with our values, and our lives with meaningful purpose. Examples of rituals to support contemplative well-being include the wearing of special clothing, ringing of bells, lighting of candles, or briefly capturing an insight in writing after engaging in habits or practices of contemplation. All habits, practices, and rituals will be grounded in evidence-based research indicating the potential for enhanced well-being.

Authors: J Stanley
Theme: Practice
91. Cultivating the Sweet Spot of Transformation
Stephanie Shelburne, Saybrook University
The “sweet spot” is descriptive of a profound, multidimensional experience where implicit and explicit awareness meet and evoke the potential for deep and meaningful transformation. Through discussion and experiential activities, participants in this presentation will investigate the mechanisms involved in cultivating the “sweet spot” as a means of individual healing and recovery. Investigation will be focused on direct experience coupled with mindful assimilation as an aid to effectively traverse the spectrum of self-awareness to self-transcendence. Participants will also explore the neurobiological mechanisms involved in cultivating these experiences, and methods for creating optimal environments in which to access the wisdom of self-transcendence and the convergence of implicit and explicit awareness.
Authors: S Shelburne
Theme: Education, Practice

92. Living Practice of an American Householder
Amy Donahue, www.dialecticalamy.com
As mainstream media and scientific research popularize contemplative practice in America, many practitioners are striking out on their own. The relative lack of formal teachers and communities, combined with the American ethos for individualism and innovation, are leading to new forms of practice. These do-it-yourself practitioners are shaping what modern, Western, contemplative practice looks like, and how it will influence our cultural attitudes both as an individual spiritual practice and in its acceptance in mainstream fields like business, health care, and education. The attitudes, practices, and purchasing decisions of householders will be increasingly influential in how contemplative practice shapes our society. This talk will share a first-person perspective on what emerging forms of structured, applied, contemplative practice look like in the United States.
Authors: A Donahue
Theme: Practice

93. A Sangha at Your Fingertips: Using a Location-Based Application to Connect Contemplatives
Amédée D’Aboville, McGill University, Computer Science
Ishan Walpola, McGill University, Montreal Neurological Institute
We have, quite successfully, imported Eastern contemplative traditions to the West. Ostensibly removed of religious connotation and cultural context, we may have also lost something else along the way. For the modern, Western contemplative, the connection and support provided by a collection of fellow practitioners, a sangha, is hard found. We consider the theoretical implication of creating a smartphone application using location-based features to connect individuals interested in discussing and practicing meditation together. Key features of the application discussed are the ability to estimate number of hours of contemplative practice, connecting practitioners and scientists, ease of viewing mutual dharma friends, and the display of practices and topics of present interest to each individual. A large part of a contemplative’s education is not necessarily solitary, but involves the mutual transmission of lived experience most easily achieved through human-to-human interaction — something we believe needs to be made more accessible.
Authors: I Walpola, A d’Aboville
Theme: Other, Practice

94. Cultivating Rootedness and Relatedness in a Digital Age
Gregory Kramer, Metta Foundation
Ozum Ucok-Sayrak, Duquesne University
We first share our observations and experiences on “connectedness” in the lives of college-aged young adults and teenagers in contemporary American society. The contexts that inform our presentation include the college classroom using observations from basic communication courses such as Oral Communication and Public Speaking, and our experiences teaching interpersonal mindfulness to teens and adults in workshops/retreats. Next, we connect our discussion to Heidegger’s discussion of the “rootlessness” and “homelessness” of the modern man. Here, we discuss the need for a renewed sense of rootedness in the digital age, supported by a kind of direct connection with ourselves, others, and our surroundings through our full presence in body and mind that is not mediated through technology. We show that growing roots through intentional wisdom practices (specifically intra- and inter-personal mindfulness practices) and inhabiting our lives and the places we live and work provide us with new ground to move beyond being “homeless.”
Authors: O Ucok-Sayrak, G Kramer
Theme: Other, Practice

95. Sincerity, Irony, and the Everydayness of Humanities
Ryan Marnane, Salve Regina University
Technology filters how individuals experience being. It is both our window into viewing the world and also the very blinds concealing our place within it. Everyday life and its practices, broadly conceived, is that which goes unobserved — everydayness is that which goes beyond the garland of critique, and just is. As everyday life is considerably if not completely different than the everyday life of yesterday, everydayness intrinsically depends upon the relationship each individual, community, and culture has with its contemporary technological cohorts. Said a bit differently, everyday life and its practices are technologically dependent. But how do unobserved practices reveal themselves? Who aids in the revealing process? How are these blinds concealing our everydayness publicized? How do we cultivate awareness, focus, and attention in an age of engineered distraction? And why did the chicken cross the road? I don’t know. The everydayness of the humanities goes beyond the garland of conventional critique, as ordinary day-to-day practices are just that — they’re commonplace and necessitate a lack of criticism. But what happens when we begin to focus on the banality of our everyday existence and practices? How is it that “doing the dishes” can manifest as a catalyst for cultivating equanimity? What modes of communication reveal ordinary experiences as extraordinary experiences? And what does irony have to do with any of this? This presentation explores three mediums revealing the everydayness of humanities:
96. Women of Buddha: Nuns in Bhutan
Marie Thesbjerg, www.journeyforhappiness.com
Pictures and conclusions from my book (and the research for it) Women of Buddha: Nuns in Bhutan will be presented. It was the first book ever to explore the life of nuns in Bhutan. Meeting the nuns of Bhutan while working and living in Bhutan took me on a personal and spiritual journey into the life of nuns and the philosophy on which they base their life. I learned about their daily contemplative practices, their role in the Bhutanese society, and about their efforts to live like the Buddha by diligently practicing the contemplative science of mind.
Authors: MV Thesbjerg
Theme: Arts

97. Journey for Happiness
Marie Thesbjerg, www.journeyforhappiness.com
This presentation includes a screening and talk about the documentary film Journey for Happiness (22 min.), which is about a pilgrimage to Bodh Gaya, where the Buddha attained enlightenment. The film follows a Buddhist woman from Bhutan to Bodh Gaya in her endeavor to create happiness/merit through sacred Buddhist contemplative practices, including chöd practice. Watch the trailer here: www.journeyforhappiness.com
Authors: MV Thesbjerg
Theme: Arts

98. Way of Life: Stories by Children of Bhutan
Marie Thesbjerg, www.journeyforhappiness.com
This presentation includes a photo exhibition with photos and small descriptions from children of Bhutan, which is rooted in Buddhist culture and tradition. It includes poetic and reflective words from these children on happiness, suffering, and life’s ups and downs, and serves as a documentary of the times of change in this small Himalayan country. The paper describes the culture of children in Bhutan based on the material collected from them, and on Gross National Happiness (GNH) in Bhutan. Please see more at: http://wayoflifeinbhutan.com.
Authors: MV Thesbjerg
Theme: Arts

99. Good Karma! Mindfulness! Prayers! Contemplative Educational Material for Children
Marie Thesbjerg, www.journeyforhappiness.com
How do we create educational material on Buddhism/religion/contemplative studies for children in the Danish school system? How can we improve the contemplative studies curriculum for children? Is it necessary? Why is it feared to have mindfulness in the classroom? The paper will present my work on educational material for these religious subjects for children, grades 8–10, and describes reflections and challenges involved in this process.
Authors: MV Thesbjerg
Theme: Education

Banquet Dinner Keynote
7:00 PM – 9:00 PM
BALLROOM
Thrive: The Third Metric to Redefining Success and Creating a Life of Well-Being, Wisdom, and Wonder
Arianna Huffington, Huffington Post Media Group
“What is a good life?” has been a question asked by philosophers going back to the ancient Greeks. But somewhere along the line, we abandoned the question and shifted our attention to how much money we can make, how big a house we can buy, and how high we can climb up the career ladder. In fact, at this point, success, money, and power have practically become synonymous in the minds of many. But over the long term, money and power by themselves are like a two-legged stool: You can balance on them for a while, but eventually you’re going to topple over. More and more people — very successful people — are toppling over. The good news is, science has caught up to ancient wisdom, and the results are overwhelming and unambiguous. To live the lives we truly want and deserve, and not just the lives we settle for, we need a “third metric” — a measure of success that goes beyond the two metrics of money and power, and consists of four pillars: well-being, wisdom, wonder, and giving.
NOTE: This is a ticketed event. Tickets must be purchased in advance or on site no later than Thursday, October 30 by 11:00 AM.
The last morning of the conference will provide opportunities for yoga and meditation prior to the final round of 20-plus concurrent sessions. To formally close this milestone event, the Symposium will end with a keynote address and brief guided meditation.

### Day at a Glance

<table>
<thead>
<tr>
<th>Time</th>
<th>MAIN TRACK</th>
<th>CONTEMPLATIVE TRACK</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 AM – 7:00 AM</td>
<td></td>
<td>Yoga</td>
</tr>
<tr>
<td>7:00 AM – 7:30 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:30 AM – 8:20 AM</td>
<td></td>
<td>Contemplative Practice</td>
</tr>
<tr>
<td>8:20 AM – 9:00 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00 AM – 9:45 AM</td>
<td>Concurrent Session</td>
<td>Contemplative Practice</td>
</tr>
<tr>
<td>9:45 AM – 10:15 AM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:15 AM – 11:30 AM</td>
<td></td>
<td>Closing Keynote</td>
</tr>
</tbody>
</table>
Concurrent Session
9:00 AM – 9:45 AM

ARLINGTON
NIH Career Award Funding for Your Early Career in Contemplative Science
Jeffrey Greeson, University of Pennsylvania
Do you aspire to have NIH funding as an early career scientist in the field of mindfulness, meditation, or contemplative studies? This presentation will feature one junior faculty member’s reflection on five years of experience with an NIH “Pathway to Independence” (K99/R00) award, which helped launch his early career research program on the outcomes and mechanisms of Mindfulness-Based Stress Reduction (MBSR) training. Strategies for developing a fundable career award idea will be discussed, as will lessons learned about how to create an interdisciplinary mentorship team, build core skills in scientific management and leadership as a new principal investigator, and balance original data collection with the simultaneous need to publish research results and apply for additional grant funding during the career award years. Advanced graduate students, postdoctoral fellows, and new assistant professors who seek NIH career award funding are most likely to benefit from this session.
Authors: J Greeson
Theme: Basic Science, Clinical Science, Other

BERKELEY
Contemplative Initiatives for Business Education
Kevin Jackson, Corporate Social Responsibility, Solvay Brussels School of Economics and Management, Université libre de Bruxelles (ULB)
To what extent can meditation and mindfulness help future business leaders cultivate authenticity, tolerance, and empathy, leading to a heightened sense of belongingness and responsibility to the communities in which they will live and work? Proceeding from this question, this presentation highlights the vital role contemplative practices have to play in equip-
turns to “Westernized” Buddhist teachings for solace and hopefully, recovery.

Authors: DC Jack
Theme: Clinical Science, Other

DARTMOUTH

LifeWorks at Stanford

Anthony Antonio, Graduate School of Education, Stanford University
Jonah Willihnganz, LifeWorks Program in Integrative Education, Stanford University

Two Stanford faculty will describe a new program at Stanford that seeks to integrate contemplative studies into the undergraduate curriculum and attract faculty and students, whether or not they are initially interested in meditation or mindfulness. The program, called LifeWorks, offers its own courses, which blend traditional cognitive learning with mindfulness practices and workshops for faculty interested in creating similar integration in their own courses. They will discuss three aspects of the program: (1) building institutional and faculty support; (2) a pedagogy that integrates embodied and creative practices with traditional forms of learning; and (3) an example course that blends positive psychology, creative writing, and mindfulness training. They will also discuss the challenges and learning experienced in the first year of this program.

Authors: A. Antonio, J. Willihnganz, F. Luskin
Theme: Education

EXETER

Mindfulness-Oriented Recovery Enhancement Targets Neurocognitive Mechanisms of Opioid Misuse and Chronic Pain

Eric Garland, College of Social Work and Huntsman Cancer Institute, University of Utah

Prescription opioid misuse among persons with chronic pain is an emerging public health threat of epidemic proportions. We conducted a randomized controlled trial of Mindfulness-Oriented Recovery Enhancement, a multimodal intervention designed to simultaneously target mechanisms underpinning chronic pain and opioid misuse. In this study, a sample of 115 chronic pain patients who were taking long-term opioids were randomly assigned to eight weeks of Mindfulness-Oriented Recovery Enhancement or a support group. Relative to the support group, Mindfulness-Oriented Recovery Enhancement led to significantly greater reductions in pain severity, functional impairment, opioid craving, and opioid misuse. These clinical outcomes were mediated by effects of Mindfulness-Oriented Recovery Enhancement on a number of neurocognitive mechanisms, including decreased pain attentional bias, reduced opioid cue-reactivity, enhanced natural reward processing, and improved autonomic nervous system regulation during attention to emotional information. Study findings indicate this novel intervention is a promising treatment for co-occurring opioid misuse and chronic pain.

Authors: E Garland, B Froeliger, M Howard
Theme: Clinical Science

FAIRFIELD

Nonlinear Contemplative Development in Contemporary Theravadin Buddhist and Jewish Mystical Traditions

Nathan Fisher, The Clinical and Affective Neuroscience Laboratory, Brown University

This paper will present preliminary research findings from the “Varieties of Contemplative Experience” study being conducted at Brown University under Dr. Willoughby Britton (PI). The study is investigating the full range of experiences reported by contemporary contemplative practitioners within Buddhist, Jewish, Christian, and Islamic traditions. This paper will highlight our research into contemporary Theravadin Buddhist and Jewish mystical traditions, and will explore the concept of “nonlinear” contemplative development as it has been
reported by practitioners, teachers, and the relevant textual sources within these respective traditions. Finally, the paper will consider the implications of “nonlinear” contemplative development for the emerging field(s) of contemplative science.

Authors: N Fisher, J Lindahl, W Britton
Theme: Clinical Science, Practice

HARVARD

Zen Arts Ensemble - Deep Listening and Contemplative Creativity with Sound
Jay Rinsen Weik, University of Toledo

This unique presentation and performance experience will draw on Jay Rinsen Weik’s extensive experience with avant-garde music and the teachings of Zen. The Zen Arts Ensemble formed out of a series of workshops titled “Being Sound” that Rinsen developed to explore the intersection of sound and contemplative practice. The Zen Arts Ensemble is a chapter of The Drinking Gourd Institute, a 501c3 nonprofit organization. At the conclusion of this presentation and performance, participants should understand the practice of deep listening as well as contemplative creativity with sound, and be able to use this session’s format as a template for introducing this practice to others, regardless of their musical or contemplative experience level.

Authors: J Rinsen Weik
Theme: Arts

MAINE

“No Identical Self”: Passions and Persons in Romantic Poetry
William Rubel, University of British Columbia

In Self, Reality, and Reason in Tibetan Philosophy: Tsongkhapa’s Quest for the Middle Way, Thupten Jinpa notes that “the crux of the philosophical challenge for a Madhyamika is not so much the actual deconstruction of svabhava; it is to maintain a coherent and meaningful notion of dependently originated existence and intrinsic identity.” Romantic poetry, I argue, engages the same difficult question. My study of romantic poetry addresses a very specific kind of craving, desire, and addiction: knowledge.

As Coleridge put it, poetry takes for “its immediate object pleasure not truth.” My presentation will link romantic vision to the meditative concept of the spontaneous liberation of whatever arises. Questioning, after the French Revolution, whether liberty could ever be achieved through violent revolt, the romantics confronted the subtle epistemic violence involved in social constitution of sensation. Rather than propose the liberation of individuals through ideas, they pitted the contemplator against the knower, the participant against the spectator: sensitive attention that unbinds the epistemic sanitization of intelligent sensation.

Authors: W Rubel
Theme: Philosophy/Humanities

MIT

The Being-Doing Nexus: A Grounded Theory Exploration
Christopher Lyddy, Case Western Reserve University

Most mindfulness practitioners today experience being mindful as they do activities throughout their day, including their professional work. While “being” and “doing” involve engaging separate cognitive modes, substantial ambiguity actually exists around how these two modes interact. Theorists posit interactions ranging from mutual incompatibility to synergy, suggesting this interaction significantly influences how mindfulness impacts work performance. To understand the interaction of being and doing, 13 individuals with mindfulness practices and jobs were interviewed about their experiences of mindfulness at work. Interviews were analyzed using a grounded theory methodology. Most interviewees reported integrating mindfulness into their work, which coincided with feeling and functioning better. Their experiences fell into two categories of distinct levels and fusion between being and doing modes. All also reported that sometimes doing work interfered with being mindful. This suggests that the interaction of mindfulness and doing cognition is variable, complex, and mediates mindfulness’s impacts on important work variables.

Authors: C Lyddy
Theme: Other

NEW HAMPSHIRE

Yoga, Mindfulness, Neuroscience, and the Body: Getting to the Heart of Matter
Bo Forbes, Embodied Awareness, LLC and the New England School of Integrative Yoga Therapeutics

Transformation is a mind-body endeavor. Yet in the quest for enlightenment, meditation can overlook body-based practices, while modern yoga can omit the training of the mind and emotions. This talk focuses on the body’s role in transformation. We examine the significance of the body in mindfulness-based practices such as interoception and self-compassion. Drawing from emerging research in neuroscience, we explore key findings that guide us in creating an integrative practice. We study the reciprocity between the enteric nervous system or “belly brain,” stress, and mood. We discuss the sentient intelligence of our connective tissue matrix, or “fascial web,” and its link to the nervous system.
We touch on the complex relationship between physical posture and emotional regulation. The wisdom practices of yoga and mindfulness, infused with insights from modern science and psychology, help us get to the heart of matter. Through these practices, we can create the “viscero-emotional resilience” and embodied awareness that serve as touchstones for change.

Authors: B Forbes
Theme: Practice

PROVINCETOWN
Emory-Tibet Science Initiative: Sustained Engagement Between Contemplatives and Scientists Offer Insights for Contemplative Science
Arri Eisen, Emory-Tibet Science Initiative
Wendy Hasenkamp, Mind & Life Institute
Lobsang Tenzin Negi, Emory-Tibet Partnership
Carol Worthman, Emory University

Over the past six years, the Emory-Tibet Science Initiative has created a science education program designed to bridge Western science and Tibetan Buddhism, and scaffold mutual engagement. The program will grow exponentially as it rolls out across Tibetan Buddhist monasteries in India and Nepal, cultivating the grounds for deep, sustained conversations between science and Buddhism. This comprehensive six-year science curriculum includes philosophy of science, cosmology, life sciences, and neuroscience, and the scope of the program represents the most significant change in the Tibetan monastic curriculum in more than 600 years. The panel will present insights for advancing contemplative science that have emerged from the journey of creating a unique pedagogy for combining two distinct traditions for active inquiry: the scientific method and contemplative practice. Specially, such encounters have suggested new lines for research, novel modes of inquiry, and expanded definitions of contemplative practice that open exciting opportunities for contemplative science.

Authors: LT Negi, A Eisen, C Worthman, W Hasenkamp
Theme: Basic Science, Education

REGIS
Resuscitating the Heart: Hesychast Spirituality and the Neurophenomenology of Depression
Joshua Connor, University of Chicago

The paper stages a conversation between Eastern monastic spirituality and the contemporary neurophenomenology of depression. The claim is that, much as the heart once functioned as a symbol for the structured core of the human being, the brain has now come to act as a symbol around which imaginative visions of human nature are pooling. The paper consists of three parts. The first part discusses Peter Kramer’s defense of depression as a neurobiological disease and his vision of “neuroresilience.” The second part discusses the interaction between the symbol of the heart and an early monastic analogue of depression, the sin of acedia (later known as «sloth»). The third part asks whether recent work on the neurophenomenology of depression might make room for a revival of the symbolism of the heart and with it, aspects of depressive experience that are occluded by the biomedical model.

Authors: JA Connor
Theme: Philosophy/Humanities

SALON A - B
The Cultivation of Emotional Intelligence in Multiple Disciplines: Relevance of Contemplative Pedagogy to University Education
Peter Grossenbacher, Naropa University
Judith Simmer-Brown, Naropa University
Phillip Stanley, Naropa University

Previous research has indicated the efficacy of mindfulness practices for improving student focus, reducing stress, and regulating emotion in the classroom. However, this workshop demonstrates that optimal student learning involves more than mindfulness by exploring how the additional components of awareness and insight can cultivate emotional intelligence and meaning-making skills through study, contemplation, recognition, and discernment. This workshop addresses the shift from emotional regulation to emotional intelligence, which includes the ability to understand one’s own emotions, and to interpret, act, and respond appropriately. This is the basis for understanding the emotions of others and developing empathy. Drawing from detailed Tibetan Buddhist traditions of mindfulness-awareness, presenters make the case for contemplation-based pedagogy, and lead specific guided contemplations on painful emotions.

Authors: P Grossenbacher, J Simmer-Brown, P Stanley
Theme: Education

SALON C - D
Experimental Investigations of Short-Term Mindfulness Meditation Training: What Can They Tell Us?
Kirk Brown, Virginia Commonwealth University
David Creswell, Carnegie Mellon University
Fadel Zeidan, Wake Forest School of Medicine

Considerable research has demonstrated the health-promoting effects of multi-week mindfulness meditation interventions. Recent investigations of brief (three to five session) mindfulness trainings have allowed researchers to better isolate the effects of specific meditative practices (e.g., focused attention) and disentangle nonspecific effects of mindfulness training (e.g., relaxation, group support). Further, this research has provided new insights on neural and biobehavioral mechanisms of mindfulness training, with demonstrated improvements on biobehavioral markers of anxiety, depression, pain, and stress. This panel will consider the theoretical and empirical advantages (and disadvantages) of brief meditation trainings for understanding mindfulness and its effects, and will present research identifying unique psychological and neural mechanisms of short-term mindfulness meditation training. Also included will be an audience-integrated dialogue discussing the experimental methods designed to determine the active mechanisms of mindfulness meditation, and the strengths and weaknesses of using brief mindfulness trainings in laboratory and clinical settings.

Authors: F Zeidan, JD Creswell, KW Brown
Theme: Basic Science
**SALON F**

**First Findings from the ReSource Project: Training Mind and Heart**

Anne Böckler, Max Planck Institute for Human Cognitive and Brain Sciences  
Boris Bornemann, Max Planck Institute for Human Cognitive and Brain Sciences  
Bethany Kok, Max Planck Institute for Human Cognitive and Brain Sciences  
Fynn-Mathis Trautwein, Max Planck Institute for Human Cognitive and Brain Sciences

The ReSource Project is a large-scale, multimethod, longitudinal study investigating the effects of different mental training practices on subjective experience, behavior, brain, and physiology. Over nine months, 180 participants underwent a structured curriculum with three separate modules training: (1) attention and interoceptive awareness; (2) loving kindness and prosocial motivation; and (3) cognitive perspective taking and metacognitive awareness. Such a modular approach allows researchers to investigate differential effects of specific mental exercises beyond global effects of meditation. The panel will present first findings from this study focusing on four main levels of observation: (1) daily subjective reports of affect, thought content, body awareness, and metacognition assessed before and after daily practice in different core exercises; (2) subcomponents of prosocial behavior identified in behavioral paradigms and self-reports; (3) autonomic measures of body awareness and self-regulation; and (4) neuronal correlates of cognitive perspective taking, empathic concern, and metacognition as assessed through a novel fMRI-task.

**Authors:** A Böckler, B Bornemann, B Kok, FM Trautwein  
**Theme:** Basic Science

---

**SALON G**

**Yoga in the Public School Setting: Rationale and Research**

Mark Greenberg, Pennsylvania State University  
Sat Bir Khalsa, Brigham and Women’s Hospital  
Laura White, William F. Connell School of Nursing, Boston College

Children and adolescents are faced with substantial stresses and life challenges that contribute to an increasing burden of mental and physical health conditions and problem behaviors. The existing school curriculum is lacking in instruction that would provide skills of self-regulation, stress management, and emotion regulation. Yoga is a contemplative mind/body practice that combines meditation, mind/body awareness, and mindfulness with physical exercises and breathing techniques. Yoga has been successfully applied to child/adolescent populations, and if applied in a school setting should provide substantial self-regulation skills. The panel members have all conducted research trials of yoga interventions in public school settings and will present the scientific
rationale for the applicability of yoga in this setting and the methods and results of their research studies. An open panel/audience discussion will provide additional information on the implications of this research and the practical implications of implementing yoga in the public school curriculum.

Authors: SBS Khalsa, MT Greenberg, LS White
Theme: Education

**SALON H - I**

**Increasing Emotional and Cognitive Regulation Among Highly Vulnerable Youth: Advancing the Science of Mindfulness Training**

Michelle Evans-Chase, Department of Psychology, Rowan University
Patricia Jennings, Education, University of Virginia Curry School of Education
Noelle Leonard, New York University College of Nursing
Erica Sibinga, Johns Hopkins School of Medicine

Mindfulness training for youth is growing tremendously across the nation; however, few studies rigorously assess its effects. Studies that employ mindfulness training have shown promise in increasing emotional and cognitive regulation among youth, including those who are highly vulnerable. Rigorous controlled trials are vital for increasing our understanding of the efficacy of mindfulness-based interventions for vulnerable youth, the variety of methods for delivering mindfulness training, and how attention to normative and non-normative developmental trajectories impact both implementation and study outcomes. The presentations at this symposium describe recent and ongoing randomized controlled trials of mindfulness training for a wide age range of adolescent youth who are dealing with challenging life circumstances, including involvement in the criminal justice system, coping with HIV/AIDS, and residing in neighborhoods with the highest rates of poverty and violence. The presentations will be followed by a guided, interactive discussion between the discussant, presenters, and the audience.

Authors: NR Leonard, M Chase-Evans, EMS Sibinga, PA Jennings
Theme: Clinical Science, Education

**SALON J - K**

**The Rhetoric of Nonconceptuality and the Role of Analysis in Meditation and Mindfulness: Reconciling Traditional Buddhist and Modern Scientific Approaches**

Jared Lindahl, Warren Wilson College
Brendan Ozawa-de Silva, Life University
Martijn van Beek, Interacting Minds Centre, Aarhus University

As Buddhist meditation practices have been transmitted and translated from their traditional contexts to the modern secular domains of scientific research and clinical psychology, many of the normative dimensions of the tradition have been de-emphasized. In particular, the modern study and appropriation of Buddhist meditation practices have tended to downplay analytical, investigative practices in favor of rhetorics of nonconceptuality and direct experience. This panel will address the limitations of defining meditation in terms of a bare experiencing that requires a reduction in, or transcending of, thinking. This panel will also draw out the implications in studying and promoting an approach to meditation that is unable to take into account the various ways in which Buddhists have insisted that right view, wise discrimination, and analytical meditation are essential for both contemplative practice and ethical behavior.

Authors: J Lindahl, B Ozawa-de Silva, M van Beek
Theme: Philosophy/Humanities

**SIMMONS**

**Promoting Mindful Practice for Health Care Professionals: Quality of Care, Quality of Caring and Resilience**

Ronald Epstein, Family Medicine, Psychiatry and Oncology, University of Rochester School of Medicine and Dentistry

Physicians are trained with the explicit mandate of addressing suffering with compassion, yet mainstream medical training and the medical literature are largely silent about how to accomplish this. Through contemplative practice, written and oral narratives, deep listening, appreciative inquiry, and dialogue, our mindful practice programs were designed to enhance clinicians’ self-awareness, self-monitoring, and self-regulation during everyday practice with the interdependent goals of providing attentive clinical care, enacting compassion in everyday practice, and enhancing clinicians’ own resilience and well-being. Research published about our yearlong and intensive workshop programs in mindful practice indicate that they reduce physicians’ burnout and distress, promote greater resilience, result in a more empathic and patient-centered approach to clinical care, and enhance physicians’ attentiveness and mental stability. Yet, important challenges remain. Building on our published data and recent findings, the session will address external and intrapersonal challenges to providing compassionate mindful medical care.

Authors: RM Epstein
Theme: Clinical Science

**TUFTS**

**A Comparison of the Thematic Unfolding of Experience in the Spiritual Exercises of St. Ignatius and the Tibetan Buddhist Lamrim Meditations**

Susan Stabile, University of St. Thomas School of Law

As a Christian who has spent many years practicing Buddhism, I have observed a strong parallel between the unfolding of experience that occurs in the Tibetan Lamrim (Graduated Path to Enlightenment) and in the Spiritual Exercises of St. Ignatius. There is a natural and predictable arc to both (as there is in vipassana meditation), suggesting that although individual meditation experiences may vary, there is also a universal dynamic that operates when we open ourselves to God (by whatever name we call God), regardless of religious tradition. This paper will explore similarities and differences between the unfolding of the meditative experience in the Lamrim and the Spiritual Exercises, and what that comparison tells us about what is universal in the meditative experience.

Authors: S Stabile
Theme: Practice
VERMONT

Grounding Ethics in the Qualities of Heart

Jake Davis, CUNY Graduate Center

In cases where two human cultures disagree over fundamental ethical values, questions about what could make one or the other position correct arise with great force. Philosophers committed to naturalistically plausible accounts of ethics have offered little hope of adjudicating such conflicts, leading some to embrace moral relativism. This project develops an empirically grounded response to moral relativism, inspired by Buddhist suggestions that we can know how to live wisely by being more fully and accurately aware of our own emotional motivations. On my approach, the experiential ease and unease that is characteristic of various emotional motivations in virtue of our shared human neurobiology can ground a circumscribed set of universal ethical claims, while leaving many other aspects of how we ought to live open to cultural determination.

Authors: JH Davis
Theme: Philosophy/Humanities

VINEYARD

Searching Inside and Outside Your Self: Challenging Current Conceptions of Corporate Mindfulness

Ronald Purser, San Francisco State University

The mindfulness movement has narrowly focused on attention enhancement, present moment awareness, and its stress reduction effects. Current operational definitions of mindfulness in the literature not only differ considerably from those derived from classic Buddhist canonical sources, but also assume that the dharma can be essentialized. This article interrogates the rhetorical gloss of secular conceptions of mindfulness, and offers a tridac model of “right mindfulness” that is more inclusive of the social context. The decontextualized, individual-level construct of mindfulness that has informed the corporate mindfulness programs is also critiqued. We argue that a denatured mindfulness divorced from its soteriological context reduces it to a self-help technique that easily misappropriated for reproducing corporate and institutional power, employee pacification, and maintenance of toxic organizational cultures. The result is that such mindfulness programs create “integrity bubbles,” but fail to challenge roots of corporate greed, ill will, and delusion.

Authors: RE Purser
Theme: Philosophy/Humanities

WELLESLEY

Different Neural Characteristics Associated with MBSR and the Relaxation Response

Sara Lazar, Massachusetts General Hospital
Diane Yan, Massachusetts General Hospital

The two most widely used stress reduction programs are MBSR and the Relaxation Response (RR). Although both programs use meditation techniques and effectively reduce stress, proponents of each program postulate very different mechanistic models. We hypothesized that there would be both shared and unique neural mechanisms associated with each program, as well as differential psychological and physiological mechanisms. To test these hypotheses, we performed an RCT in collaboration with the Center for Mindfulness and the Benson-Henry Institute. Healthy but stressed individuals were randomized to MBSR or the Relaxation Response. Differential brain activity during meditation was observed in each group, as well as group differences in breathing rate. Group differences in resting brain activity and change in rumination and self-compassion were also observed. There were no group differences in mindfulness as assessed by the FFMQ. The results suggest that MBSR and the RR reduce stress in different ways.

Authors: D Yan, SW Lazar
Theme: Basic Science

YARMOUTH

Externally-Induced Contemplation: A Neuroscience Study of Architecture

Julio Bermudez, The Catholic University of America
David Lipschitz, University of Utah School of Medicine
Yoshio Nakamura, Pain Research Center, University of Utah

Neuroscience research on contemplation usually considers only internally induced (self-directed) methods for attaining mindfulness (e.g., meditation, prayer). We explored other “external methods” for cultivating mindfulness, focusing on architecture that we design and inhabit. Our study evaluated if buildings designed for contemplation would elicit brain activation patterns similar to those found under contemplation. We used a functional magnetic resonance imaging (fMRI) to examine 12 architects viewing images of ordinary buildings (“control”) versus contemplation-inducing (“experiment”) edifices. Briefly, we found that: (1) markedly distinct activations occurred when subjects experienced ordinary vs. contemplation-inducing architecture; (2) areas activated by contemplative buildings overlapped with areas activated in meditators during meditation; (3) significant correlations among subject-reported anxiety, depth of experience, and brain physiology were observed; and (4) architecturally induced contemplation is an aesthetic state activating neural regions of sensory integration, noncriticality, and embodiment. Our study demonstrated that specially designed buildings could induce phenomenologies similar to those under internally induced contemplation.

Authors: J Bermudez, D Krizaj, D Lipschitz, Y Nakamura
Theme: Arts, Basic Science
Closing Keynote  
10:15 AM – 11:30 AM

BALLROOM

Insights from Social Neurosciences: From Training the Brain in Compassion to a Caring Society

Tania Singer, Department of Social Neuroscience, Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig

In the last decades, our society has faced many global and economic problems that call for new solutions and change. Emerging fields such as affective-social and contemplative neurosciences have produced promising findings that may help inform such necessary changes. For example, plasticity research has suggested that training of mental capacities such as mindfulness and compassion is indeed effective and leads to changes in brain functions associated with increases in positive affect, pro-social behavior, and better health. After summarizing findings on short-term training studies focusing on training empathy and compassion, I will introduce the ReSource Project, a large-scale, multidisciplinary, and methodological one-year secular mental training program that aims at the cultivation of attention, interoceptive awareness, perspective taking on self and others, metacognition, prosocial motivation, and emotion regulation. This study also includes new ways of training the mind through contemplative intersubjective dyads supported by a web platform allowing for everyday practice with another person. I will conclude by suggesting ways of how the cultivation of mental faculties and compassion could help formulate new economic models aimed at reintroducing secular ethics in society and emphasizing the need to step into a global responsibility through personal change.

PRACTICE

11:15 AM – 11:30 AM
BALLROOM

Meditation on Interconnectedness

Sharon Salzberg, Insight Meditation Society

In Mahayana Buddhist teaching, there is a famous image called “Indra’s Net,” where the universe is depicted as an enormous net. At every place where there is a joining, there’s a very polished, multifaceted jewel. Each jewel reflects all others at the same time. If you look at one thing, you see all things. In day-to-day life, this translates into a much more realistic perception of the larger patterns and confluences we are all actually a part of. This clarity of perception is the root of understanding, of compassion, and of lovingkindness.
Boston Marriott Copley Place

1ST FLOOR

2ND FLOOR

3RD FLOOR
**Tenzin Gyatso, the 14th 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 northeastern 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 13th 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.

**Linda-Susan Beard**, who received her PhD from Cornell, negotiates between and among the worlds of African-American, South African, and post-colonial literatures. She teaches courses on post-apartheid literature and literary and historical reimaginings of transatlantic slavery (such as Toni Morrison and the art of narrative conjure), as well as introductory courses in English and African literatures that examine the dynamics of canon formation. She is editing the first comprehensive volume of the letters of Bessie Head, about whom she has written essays and given conference papers for 25 years. She is also involved in the new area of contemplative intelligence, having been in the first group of contemplative fellows chosen by the ACLS and funded by the Cummings and Fetzer Foundations. King’s College recently awarded her an honorary doctorate for her work in integrating contemplative and intellectual ways of knowing. She served for five years as faculty coordinator of the Mellon scholars program and as chair of the Africana studies program.

**Zakiyah Ansari** is the Advocacy Director of the New York State Alliance for Quality Education (AQE), a leading statewide organization that has fought for educational equity for the last decade. Appointed to Mayor Bill de Blasio’s Transition Committee, she has addressed parents, educators, elected officials, and administrators across the United States about the importance of organizing parents and communities in schools. She is a co-initiator of a new, national movement, Journey for Justice, composed of grassroots community-based organizations representing youth, parents, and intergenerational organizations that are impacted by the closing, turnaround, and charter expansion of schools in parents, and intergenerational organizations that are impacted by the closing, turnaround, and charter expansion of schools in communities of color. She was interviewed for the February 2013 edition of *American Prospect* (“Pushing Arne Duncan to Fast Forward”); has appeared on MSNBC’s weekly national program, *Melissa Harris-Perry,* was a panelist on the *City & State* and *Schoolbook* panel on education; and is one of the parent voices in the film *Parent Power*, produced by the Annenberg Institute for School Reform. She resides in the East Flatbush neighborhood of Brooklyn, New York, and is the mother of eight children and a grandmother of three.

**Leslie Booker** is the founder of Urban Sangha Project, a collective that supports the sustainability of frontline change makers through mindful yoga, meditation, and dialogue. She is a senior teacher and the director of trainings for the Lineage Project, an organization that brings awareness-based practices like yoga and meditation to incarcerated and court-involved youth in New York City. She facilitated a mindfulness-based intervention with the adolescent population on Riker’s Island for two years.
Sarah Bowen, PhD, is an acting assistant professor in the department of psychiatry and behavioral sciences at the University of Washington, Seattle. Her research and clinical work has focused primarily on the integration of meditation practice and mindfulness-based approaches for addictive behaviors into traditional Western cognitive therapy. The primary focus of her personal, clinical, and research practices is the exploration of processes underlying behavior change, and adaptation of treatments and practices to reach a wide and diverse patient and client population. In addition to authoring numerous journal articles and book chapters in this area, she is the lead author of Mindfulness-Based Relapse Prevention for Addictive Behaviors: A Clinician’s Guide. She has been practicing in the Theravada tradition for more than 10 years, and has facilitated mindfulness-based relapse prevention groups in private practice, veterans’ medical centers, county treatment agencies, and prisons. She offers professional trainings to researchers and clinicians in the United States and internationally, and has a particular interest in adapting and disseminating mindfulness-based treatment for dual-diagnosis and underserved populations.

Judson Brewer, MD, PhD, an assistant professor of psychiatry at the Yale School of Medicine, and medical director of the Yale Therapeutic Neuroscience Clinic, is a board-certified psychiatrist who has been investigating the neural underpinnings of mindfulness training and its clinical efficacy for disorders such as addictions. He received his bachelor’s degree from Princeton University, and his MD and PhD degrees from Washington University in St. Louis, where his thesis work focused on molecular mechanisms of stress hormone regulation of the immune system. After training in mindfulness meditation during medical and graduate school, he shifted his focus from animal models of stress to the elucidation of neurobiological mechanisms underlying the interface between stress, mindfulness, and the addictive process. A pioneer in assessing the efficacy of mindfulness training for addictions, he performed some of the first clinical trials for alcohol and cocaine dependence, followed by the first randomized clinical trial for nicotine dependence, in which he showed that mindfulness training was twice as effective as the “gold standard” treatment for smoking cessation. His laboratory has also delineated key psychological mechanisms of how mindfulness training helps individuals change their relationship to craving. His lab is currently working to delineate key brain activation patterns during meditation, and to link these to physiological and behavioral measures using methods such as real-time fMRI neurofeedback and experience sampling. His research is supported by the National Institutes of Health, and has been featured internationally in media outlets such as TEDx, Forbes magazine, NPR, and the BBC.

Willoughby Britton, PhD, holds a bachelor of arts in neuroscience and a doctorate in clinical psychology. She is currently assistant professor in the departments of psychiatry and public health at Brown Medical School, and research director of the Brown University Contemplative Studies Initiative. She received sleep/EEG training at Harvard Medical School, and was a research fellow at the National Institute on Drug Abuse (NIDA/NIH) and Andrew Weil’s program in integrative medicine. She spent several years in Asia studying meditative techniques, and received her mindfulness instructor certification training at the Center for Mindfulness at University of Massachusetts Medical School. With the aim of investigating the link between contemplative practices, brain function, sleep, attention, and affective disturbances, she has conducted federally funded randomized control trials on the neurophysiological effects of Mindfulness-Based Cognitive Therapy (MBCT) in depression, and education-based mindfulness training in middle school and university students in comparison to music and dance. She is also investigating the question: Which contemplative practices are best (or worst) suited for which populations? She is conducting a National Institutes of Health-funded mindfulness “dismantling” study comparing the effects of shamatha and vipassana practices on attention, cortical arousal, and affective disturbances. In collaboration with Jack Kornfield and several other teachers, she is conducting research on the adverse effects and difficult stages of the contemplative path, which she presented to the Dalai Lama at the Mind and Life XXIV Dialogues.

Jaimie Cloud is the founder and president of the Cloud Institute for Sustainability Education in New York City. The Cloud Institute is dedicated to the vital role of education in creating awareness, fostering commitment, and guiding actions toward a healthy, secure, and sustainable future for ourselves and for future generations. We monitor the evolving thinking and skills of the most important champions of sustainability, and transform them into educational materials and a pedagogical system that inspire young people to think about the world, their relationship to it, and their ability to influence it in an entirely new way. A pioneer of Education for Sustainability (EIS) in the United States, she has authored The Cloud Institute’s EIS Framework, and several peer-reviewed journal chapters and articles on sustainability and the significance of education for sustainability. Working extensively with educators, administrators, and school boards across the nation, she designs and facilitates professional development...
Doug Coatsworth, PhD, is professor of human development and family studies at Colorado State University, and the director of the Colorado State University Prevention Research Center. He earned his AB from Harvard University in psychology and social relations and his PhD in clinical psychology from the University of Minnesota, and received postdoctoral training in prevention science at Arizona State University. His research has focused on understanding the developmental process of resilience in childhood and adolescence, and on evaluating interventions that promote competence, resilience, and well-being in children, youth, and families. Most of his studies involve intervening with families to promote positive parenting and effective family functioning as a mechanism for creating nurturing home environments and enhancing youth resilience. Recently, he and his collaborators developed a theoretical model of mindfulness in parenting that has guided pilot and large-scale randomized clinical trials of a mindfulness-enhanced, family skills program. Their program infuses brief mindfulness activities into an evidence-based program to study the additive effects of mindfulness on positive parenting, family functioning, parent-youth relationships, and youth behavior.

Richard J. Davidson, PhD, is the founder and chair of the Center for Investigating Healthy Minds at the Waisman Center, University of Wisconsin-Madison, where he is also director of the Waisman Laboratory for Brain Imaging and Behavior. He was educated at New York University and Harvard University, where he received his bachelor’s degree and PhD, respectively, in psychology. Over the course of his research career, he has focused on the relationship between brain and emotion. He is currently the William James professor and Vilas research professor of psychology and psychiatry at the University of Wisconsin. He is coauthor or editor of 13 books, including Visions of Compassion: Western Scientists and Tibetan Buddhists Examine Human Nature and The Handbook of Affective Science. He is the author (with Sharon Begley) of The Emotional Life of Your Brain, which was published by Penguin in 2012. He has published more than 300 chapters and journal articles, and is the recipient of numerous awards for his work, including the Research Scientist Award from the National Institute of Mental Health, the Distinguished Scientific Contribution Award from the American Psychological Association, and election to the American Academy of Arts and Sciences. He has served on the board of directors for the Mind & Life Institute since 1992. In 2006, he was named one of the 100 most influential people in the world by TIME magazine; that same year, he received the first Mani Bhaumik Award from UCLA for advances in the understanding of the brain and the conscious mind in healing. In 2011, he received the Paul D. MacLean Award for outstanding neuroscience research in psychosomatic medicine. He serves on the scientific advisory board at the Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig, and as chair of the psychology section of the American Association for the Advancement of Science.

Sona Dimidjian, PhD received her PhD in clinical psychology from the University of Washington in 2005. She joined the faculty in the department of psychology and neuroscience at the University of Colorado at Boulder in 2006. Her research addresses the treatment and prevention of depression, with a particular focus on the mental health of women during pregnancy and postpartum. She is a leading expert in cognitive and behavioral approaches to treating and preventing depression, and in the clinical application of contemplative practices, such as meditation and yoga. Current projects in her lab are focused on the development of preventive interventions with at-risk pregnant women; the dissemination of evidence-based psychotherapy; and, in collaboration with Tor Wager, on the neuroscience of compassion and interventions designed to increase compassionate behavior.

Brooke Dodson-Lavelle is the senior program officer for the Mind & Life Institute’s new compassion and secular ethics initiative. She is also completing her PhD in the graduate division of religion at Emory University. Her work focuses on the confluence of Buddhist contemplative theory and cognitive science, as well as the cultural contexts that shape the transmission, reception, and secularization of Buddhist contemplative practices. She is currently completing her dissertation, “Cultivating Compassion and Mindfulness: The Rhetoric of Secular Buddhist-Based Practices in America.” She was a lead instructor for several studies examining the efficacy of cognitively based compassion training (CBCT) at Emory, and has helped to develop and adapt CBCT for schoolchildren as well as adolescents in Atlanta’s foster care system. In 2010, she helped developed the CBCT Teacher Training Program, and now serves as associate training director. In addition, she has also served as program coordinator for the Emory-Tibet Partnership, and from 2009 to 2011 she coled the Emory Tibetan Mind/Body Sciences Summer Study Abroad program in Dharamsala, India. Prior to attending Emory, she earned her bachelor of arts degree in religion and psychology at Barnard College, and her master’s degree in religion at Columbia University. While at Columbia, she also worked as a research coordinator for the Columbia integrative medicine program, where she developed and taught mindfulness-based meditation programs for a variety of clinical populations.
Greg Dunn, PhD, is a neuroscientist, artist, musician, and meditator. He received his PhD from the University of Pennsylvania in 2011, and during his tenure as a graduate student, began to paint neurons in the style of Asian sumi-e. He is now a full-time artist in Philadelphia, where he works to incorporate his knowledge of chemistry, physics, and biology into his artistic process by bringing the microscopic world into the realm of fine art through designs in gold leaf. Together with a collaborating physics lab at Penn, he is working to develop complex reflective and light manipulation techniques to further enhance his work and blur the boundaries between art and science. An avid meditator, he also approaches his art from the perspective of a spiritual scientist, training his mind through yoga and meditation in order to further hone his aesthetic and compositional sensibilities. He lectures on the connections between art, science, and meditation, believing that a synthesis of these three approaches enhances his work.

Paul Ekman, PhD, is professor emeritus of psychology at the University of California, San Francisco, and president of the Paul Ekman Group, a company translating his findings into online interactive training tools. He is author, coauthor, or editor of 15 books; the most recent being Moving Towards Global Compassion. The book before that, Emotional Awareness, was coauthored with the Dalai Lama. He received the Distinguished Scientific Contribution Award from the American Psychological Association, which subsequently identified him as one of the 100 most influential psychologists of the 20th century. In 2009, TIME magazine identified Ekman as one of the 100 most influential people in the world.

Elissa Epel, PhD, is an associate professor at the University of California, San Francisco, in the department of psychiatry; director of the Aging, Metabolism & Emotions lab; director of the Center for Obesity Assessment, Study, and Treatment (COAST); and assistant director of the Center for Health & Community. She received her bachelor of arts degree in psychology from Stanford University, and a PhD in clinical and health psychology from Yale University. Her research investigates the intricacies of the mind-body connection, both in states of suffering and after wellness interventions. In particular, she has been studying psychological, social, and behavioral processes related to chronic psychological stress that accelerate biological aging, and how meditation or mindfulness-based interventions might slow cellular aging. She also studies the interconnections between emotional life, eating, and metabolism. With her collaborators, she is conducting clinical trials to examine how mindful-eating programs affect weight loss and pregnancy/health outcomes. She is currently studying (with Cliff Saron, Will Kabat-Zinn, and Teresa LaMendola Kabat-Zinn) how specialized mindfulness training targeting parenting stress affects aging biology as well as child well-being, especially for children with autism. New methods include how mobile technology can promote changes in daily experience. She is involved in National Institute of Aging initiatives on the measurement and role of stress in aging, and on the reversibility of early-life adversity. Her research on stress and aging is covered in depth in the book Stress Less by Thea Singer. Her research publications are available online at www.chc.ucsf.edu/ame_lab/publications.html.

Richard Freeman has been a student of yoga since 1968. He spent nearly nine years in Asia studying various traditions, which he incorporates into the ashtanga yoga practice as taught by his principal teacher, K. Pattabhi Jois of Mysore, India. His background includes studying Sufism in Iran, following Zen and vipassana Buddhism, and practicing bhakti and traditional hatha yoga in India. In 1974, he also began an in-depth study of iyengar yoga, which eventually led him to ashtanga vinyasa yoga. He is an avid student of both Western and Eastern philosophy, as well as Sanskrit. His ability to juxtapose various viewpoints without losing the depth and integrity of each has helped him to develop a unique, metaphorical teaching style. He teaches public classes at the Yoga Workshop, and spends a good part of each year traveling as a guest instructor, teaching at studios throughout the world. As the founder of the Yoga Workshop, he sets the standard for the classes at the studio. He also offers teacher-intensive courses and special classes, and gives studio talks on Indian philosophy on a regular basis. He is the author of the book The Mirror of Yoga (Shambhala Publications). For more information, visit www.yogaworkshop.com.

David Germano, PhD, teaches and researches Tibetan and Buddhist Studies at the University of Virginia. He is the director of UVa’s Contemplative Sciences Center (www.uvacontemplation.org); as well as the Tibetan and Himalayan Library (www.thlib.org), Tibet Center (www.uvatibetcenter.org), and Sciences, Humanities and the Arts Network of Technological Initiatives (SHANTI; www.shanti.virginia.edu). His personal research focuses on tantric, philosophical, and contemplative traditions in Tibet. He has lived for many years in Tibetan communities in Asia, in the context of which he has also worked extensively on programs of scholarly engagement, community service, and participatory knowledge initiatives. He has extensive experience with the development of digital technology for use in the humanities and education. He is currently focused on the exploration of contemplative ideas, values, and practices involving blended humanistic and scientific methodologies, as well as new applications in diverse fields.
Roshi Joan Halifax, PhD, is a Buddhist teacher, Zen priest, anthropologist, and pioneer in the field of end-of-life care. She is founder, abbot, and head teacher of Upaya Institute and Zen Center in Santa Fe, New Mexico. She received her PhD in medical anthropology in 1973 while teaching at the University of Miami Medical School. She received a National Science Foundation Fellowship in visual anthropology, was an honorary research fellow in medical ethnobotany at Harvard University, and was a distinguished visiting scholar at the Library of Congress. From 1972–1975, she worked with psychiatrist Stanislav Grof at the Maryland Psychiatric Research Center with dying cancer patients. She has continued to work with dying people and their families, and to teach health care professionals and family caregivers about the psychosocial, ethical, and spiritual aspects of care of the dying. She is director of the Project on Being with Dying, and founder and director of the Upaya Prison Project, which has developed programs on meditation for prisoners. She studied with Zen teacher Seung Sahn, received the Lamp Transmission from Thich Nhat Hanh, and was given Inka by Roshi Bernie Glassman. A founding teacher of the Zen Peacemaker Order, her work and practice for more than four decades has focused on applied Buddhism. Her books include The Human Encounter with Death (with Stanislav Grof); The Fruitful Darkness; Simplicity in the Complex: A Buddhist Life in America; Being with Dying: Cultivating Compassion and Wisdom in the Presence of Death; and Being with Dying: Compassionate End-of-Life Care (Professional Training Guide). She is a Lindisfarne fellow and codirector of the Lindisfarne Association, and a Mind & Life Institute board member.

Pir Zia Inayat-Khan, PhD, is a scholar and teacher of Sufism in the tradition of his grandfather, Hazrat Inayat Khan. He received a bachelor of arts degree in Persian literature from the London School of Oriental and African Studies, and his master’s degree and PhD in religion from Duke University. He received his spiritual training from his father, Pir Vilayat Inayat Khan, whom he succeeded in 2004 as worldwide president of the Sufi Order International (www.sufiorder.org). In the same year, he founded Suluk Academy (www.sulukacademy.org), a school of contemplative studies with branches in the United States and Europe. Four years later, he founded Seven Pillars House of Wisdom (www.sevenpillarhouse.org) as a forum for interfaith and interdisciplinary collaboration. He is the editor of A Pearl in Wine: Essays in the Life, Music and Sufism of Hazrat Inayat Khan (2001) and Caravan of Souls: An Introduction to the Sufi Path of Hazrat Inayat Khan (forthcoming), and author of Saracen Chivalry: Counsels on Valor, Generosity, and the Mystical Quest (2012). He is a fellow of the Lindisfarne Association, advisor to the Contemplative Alliance, and a recipient of the U Thant Peace Award. With Shaikh al-Mashaik Mahmood Khan, he jointly leads the Knighthood of Purity of the Hazrat Order (www.knighthoodofpurity.org). He lives with his wife and two children in rural upstate New York. More information on Pir Zia’s work can be found at www.pirzia.org.

Janice Jackson, PhD, is a senior associate with the National Equity Project. She is an independent education consultant with a focus on leadership and organizational change in public schools and districts, equity strategies, teaching and learning, teachers’ and principals’ professional identity, and reflective judgment of principals and teachers. Prior to her current role, she was the executive director of the Stanford Center for Opportunity Policy in Education. She has served as a lecturer on education at the Harvard Graduate School of Education, a senior associate on the Wallace-funded Executive Leadership Program for Educators, a faculty member in the Leadership for Change Program in the Carroll School of Management at Boston College, and an assistant professor at Boston College in the Lynch School of Education. She has served as the deputy superintendent for Boston public schools, and deputy and acting assistant secretary for elementary and secondary education for the U.S. Department of Education. She has also worked as a human relations coordinator, a personnel analyst, and an elementary school teacher.
Yvette Jackson, EdD, is internationally recognized for her work in assessing and capitalizing on the learning potential of disenfranchised students. As a student of the renowned cognitive psychologist Reuven Feuerstein, she studies cognitive development and the impact of neuropsychology, culture, and mediation on intellectual development, learning, and achievement. Her research is reflected in her books Pedagogy of Confidence, Inspiring High Intellectual Performance in Urban Schools, and Aim High, Achieve More: How to Transform Urban Schools through Fearless Leadership, coauthored by Veronica McDermott. Formerly the director of gifted programs and executive director for instruction and curriculum development for New York City public schools, she currently serves as the chief executive officer of the National Urban Alliance, and adjunct professor at Teachers College at Columbia University. She has been a visiting presenter for Harvard and Stanford Universities, the Feuerstein Institute in Israel, the Conference of Associação Nacional para o Estudo e Investigação Educacional (ANEIS) in Portugal, and Thinking Schools International in the United Kingdom.

Amishi Jha, PhD, is an associate professor of psychology at the University of Miami, and director of contemplative neuroscience for the Mindfulness Research and Practice Initiative, prior to which she was an assistant professor at the Center for Cognitive Neuroscience, University of Pennsylvania. She received her PhD from the University of California, Davis, in 1998, and received her postdoctoral training in the Brain Imaging and Analysis Center at Duke University in functional neuroimaging. She has received several awards for teaching and innovation in science, including selection as a Poptech Science and Public Leadership Fellow in 2010. She studies the neural bases of attention and the effects of mindfulness-based training programs on cognition, emotion, and resilience. With grants from the department of defense and several private foundations, she has been systematically investigating the potential applications of mindfulness training in education, corporations, and the military. Her work has been featured in the Journal of Cognitive Neuroscience, Emotion, and Brain Research, and she serves on the editorial boards of Journal of Experimental Psychology: General, Frontiers in Neuroscience, and Frontiers in Psychology.

Patricia (Tish) Jennings, MEd, PhD, is an associate professor in education at the University of Virginia Curry School of Education. She is an internationally recognized leader in the field of social and emotional learning, with a specific emphasis on teacher stress and how it impacts the social and emotional context of the classroom and student learning. She received her doctorate in human development from the University of California, Davis, and completed postdoctoral training at the health psychology program at the University of California, San Francisco. As research assistant professor at the Prevention Research Center at Penn State University, Jennings led the faculty team that developed Cultivating Awareness and Resilience in Education (CARE for Teachers), a mindfulness-based program for teachers designed to reduce stress and promote improvements in classroom climate and student academic and behavioral outcomes. With two grants from the U.S. Department of Education Institute of Educational Sciences (IES), she has research demonstrating that CARE improves teachers’ general well-being, health, emotion regulation, efficacy, and mindfulness. A study currently underway is examining CARE’s effects on classroom climate and student academics and behavior. In addition to her background in research, Jennings has more than 22 years of classroom teaching experience. After receiving a master’s degree in education, she founded and directed an experimental school, where she developed and field-tested curriculum for children from infancy through fifth grade, applying a variety of contemplative approaches that come from alternative educational methodologies such as Montessori and Waldorf in her work.

Jon Kabat-Zinn, PhD, is a scientist, writer, and meditation teacher. He is professor of medicine emeritus at the University of Massachusetts Medical School, where he was founding executive director of the Center for Mindfulness in Medicine, Health Care, and Society (1995), and founder (in 1979) and former director of its world-renowned Mindfulness-Based Stress Reduction (MBSR) Clinic. He is the author of many books that have been published in more than 35 languages. Kabat-Zinn received his PhD in molecular biology from MIT in 1971 in the laboratory of Nobel laureate Salvador Luria. His research career focused on mind/body interactions for healing, and on the clinical applications of mindfulness meditation training for people with chronic pain and stress-related disorders. His work has contributed to a growing movement of mindfulness into mainstream institutions, such as medicine, psychology, health care, neuroscience, schools, corporations, prisons, and professional sports. He has received numerous awards over the span of his career. He is a founding fellow of the Fetzer Institute, and a fellow of the Society of Behavioral Medicine. He received the Art, Science, and Soul of Healing Trailblazer Award for “pioneering work in the field of integrative medicine” from the Scripps Center for Integrative Medicine in La Jolla, California (2001); the Distinguished Friend Award from the Association for Behavioral and Cognitive Therapies (2005); an inaugural Pioneer in Integrative Medicine Award from the Bravewell Philanthropic Collaborative for Integrative Medicine (2007); the 2008 Mind and Brain Prize from the Center for Cognitive Science at the University of Torino, Italy; and a Pioneer in Western Socially Engaged Buddhism Award (2010) from the Zen Peacemakers Association. He is the founding convener of the Consortium of Academic Health Centers for Integrative Medicine (CAHCIM), and a member of the board of the Mind & Life Institute. He and his wife, Myla Kabat-Zinn, are engaged in supporting initiatives to further mindfulness in K-12 education and promote mindful parenting.
Al Kaszniak, PhD, received his doctorate in clinical and developmental psychology from the University of Illinois in 1976, and completed an internship in clinical neuropsychology at Rush Medical Center in Chicago. He is currently director of clinical neuropsychology, director of the Arizona Alzheimer's Consortium Education Core, and a professor in the departments of psychology, neurology, and psychiatry at the University of Arizona (UA). He formerly served as head of the psychology department, and as director of the UA Center for Consciousness Studies. He also served for several years as chief academic officer for the Mind & Life Institute. His research has been published in more than 150 journal articles, chapters, and books, and has been supported by grants from the National Institutes of Health (NIH), the National Institute of Mental Health (NIMH), and several private foundations. His work has focused on the neuropsychology of Alzheimer's disease and other age-related neurological disorders, consciousness, memory self-monitoring, emotion, and the psychophysiology of long-term and short-term meditation. He has served on the editorial boards of several scientific journals, and has been an advisor to the NIH and other governmental agencies. He is a past-president of the Section on Clinical Geropsychology and a fellow of the American Psychological Association and the Association for Psychological Science. In addition to his academic and administrative roles, he is a lineage holder and teacher in the Soto tradition of Zen Buddhism.

Catherine Kerr, PhD, received a bachelor of arts degree from Amherst College and a PhD from Johns Hopkins University. She was a postdoctoral fellow at Harvard University and an instructor at Harvard Medical School, where she received a career development award from the National Institutes of Health to investigate attention, somatosensory cortical dynamics, and mindfulness. In 2011, she joined the department of family medicine and the contemplative studies initiative (for which she is director of translational neuroscience) at Brown University. Her work has been published in *The Journal of Neuroscience, BMJ, Brain Research Bulletin,* and other journals, and has been covered in the *New York Times, Technology Review,* and *Forbes.*

Christopher Knaus, PhD, is a race scholar and critical race theory practitioner who focuses on student voice as a foundation for educational systems transformation. He directs of the inaugural Doctorate in Educational Leadership Program at the University of Washington, Tacoma, where he also serves as professor of education. In addition to preparing and supporting leaders who transform their professional arenas and community contexts, he collaborates to develop and sustain diverse educator pathways that strengthen culturally responsive, socially just approaches. His focus on developing the urban youth voice helps educators to create inclusive, challenging classrooms and schools that provide children with the skills to transform the immediate world they live into one of meaning – one in which addressing social inequalities becomes the purpose of their education. He has visited with students and schools in 12 countries, and his research centers on the silencing impact of racially biased curriculum, pedagogy, and policy on global communities of color. He is currently completing his third book, *Whiteness Is the New South Africa: Qualitative Research on Post-Apartheid Racism,* based on research that he conducted as a Fulbright Scholar.

Rhonda V. Magee, JD, is professor of law at the University of San Francisco and a visiting scholar with the Center for the Study of Law and Society at the University of California, Berkeley, School of Law. She teaches Torts, Contemporary Issues of Race and Law, and Contemplative Lawyering. She has served on the executive board of the American Association of Law Schools section on balance in legal education, and is presently the president of the board of directors of the Center for Contemplative Mind in Society. She has published widely on issues related to race and justice, and on the infusion of mindfulness into law and legal education. Her teaching, scholarship, and service commitments all reflect her pioneering efforts to transform legal education and society in recognition of the richness and the challenges of diversity of all kinds in the 21st century. She seeks to cocreate with others a fully inclusive world community capable of managing its conflicts and distributing its resources compassionately, equitably, and sustainably through contemplative practice and the power of love.

Yin Mei is a category-defying director/choreographer/performance artist known for creating dance theatre works that fearlessly bridge geographic, technological, artistic, and cultural divides to conjure a unique brand of theatrical magic. Having forged a dance style employing Chinese energy direction and spatial principles as a means of creating contemporary dance theatre, she has established herself as a choreographer and performance/visual artist uniquely positioned to explore themes of artistic and spiritual significance arising at the intersection between Asian traditional performance and Western contemporary dance. She received a Guggenheim fellowship in choreography in 2005, was a choreography fellow of the New York Foundation for the Arts in 2004, and was twice nominated for a Cal-Arts Alpert Award in choreography. As a Fulbright Scholar in 2011–2012, she researched and developed pedagogy for teaching the creative process from the perspective of early Chinese aesthetics at Hong Kong Baptist University, and choreographed *The Seven Sages of Bamboo Grove* for the Hong Kong Dance Company in collaboration with director Jay Schieb (2012). Her current research project at the Shanghai Theater Academy, entitled New Tai Chi for Life,
is building a system of dance training through tai chi’s concept and practice. She is a longtime practitioner and teacher of tai chi and chi gong, and a student of the I Ching. Her research into a new Chinese contemplative practice system was recognized with a Contemplative Mind in Society fellowship from the American Council of Learned Societies, and is now a faculty of the Contemplative Pedagogy with the Contemplative Mind in Society. She grew up in China and was a principal dancer with the Hong Kong Dance Company before coming to New York. She is now a professor of dance at the drama theatre and dance department of the City University of New York, Queens College, and artistic director of YINMEIDANCE. www.yinmeidance.org

Jerome Murphy, PhD, is the Harold Howe II professor of education at Harvard University, and former dean of the Harvard Graduate School of Education. He is a specialist in the management and politics of education. His teaching and research focus on administrative practice and organizational leadership, government policy, program implementation and evaluation, and qualitative methodology. He has examined educational policy and practices in England, Australia, Colombia, China, and South Africa, and has participated in international exchange meetings on educational issues in Denmark, Sweden, Norway, Israel, and Russia. As dean, he led the development of new initiatives in learning technologies, arts education, neuroscience and education, and school leadership. A former math teacher, he helped develop domestic legislation in the former U.S. Department of Health, Education, and Welfare; was associate director of the White House Fellows Program; and founded and directed the Massachusetts Internships in Education.

Lis Nielsen, PhD, is Chief of the Individual Behavioral Processes (IBP) Branch in the Division of Behavioral and Social Research (BSR) at the National Institute on Aging (NIA), National Institutes of Health (NIH). This branch develops research programs in the areas of health and behavior, cognitive and emotional functioning, technology and human factors, and integrative approaches to the study of social, psychological, genetic and physiological influences on health and well-being over the life course. Within the IBP Branch, Nielsen manages a portfolio of research in Psychological Development and Integrative Science that applies an integrative approach to the study of psychological aging and life course development, encompassing multidisciplinary research on the biological, social, and psychological determinants of social and emotional function, well-being and health. Since coming to NIA in 2005, Nielsen has developed new research initiatives in Neuroeconomics of Aging, Social Neuroscience of Aging, and Subjective Well-being at NIA, as well as trans-NIH initiatives for the NIH Basic Behavioral and Social Science Opportunity Network (OppNet) and the Science of Behavior Change (SOBC). Nielsen has a BA in Philosophy from Rhodes College, MA in Psychology (cand. Psych.) from the University of Copenhagen, and a PhD in Cognitive Psychology and Cognitive Science from the University of Arizona. She held an NIA-funded NRSA Post-Doctoral Fellowship in Psychology of Aging at Stanford University. Her scientific interests and research lie at the intersection of affective science and aging research. Nielsen is a Mind and Life Fellow and a member of the Association for Psychological Science and the Academy of Behavioral Medicine Research.

Andrew Olendzki, PhD, is a senior scholar at the Barre Center for Buddhist Studies, which he has led for almost 25 years, and at the Mind & Life Institute, where he heads up the Mapping the Mind project. Trained in Buddhist Studies at Lancaster University (UK), as well as at the University of Sri Lanka (Peradeniya) and Harvard, he was executive director of the Insight Meditation Society for many years, an early member of the Institute for Meditation and Psychotherapy, and has taught at several New England colleges (Harvard, Brandeis, Smith, Amherst, Hampshire, Lesley). He has contributed chapters to several volumes on the topics of Buddhist psychology, mindfulness meditation, and the interface of Buddhist and scientific views of the mind, writes a regular column (Thus Have I Heard) in Tricycle: The Buddhist Review, and is the author of Unlimiting Mind: The Radically Experiential Psychology of Buddhism (Wisdom, 2010).

Patricia St. Onge is founder and partner at Seven Generations Consulting and Coaching. Supporting individuals, organizations, and communities in increasing their capacity for fullness and effectiveness, she believes that much of the wisdom necessary to solve a dilemma rests within those experiencing the challenge. She has worked to support the progressive social justice movements all of her adult life, and has served as executive and interim director of more than a dozen nonprofit organizations. She is a member of Native Americans in Philanthropy and Common Counsel Foundation, a trustee of funders for LGBTQ issues, and core faculty at the Chaplaincy Institute for Interfaith Studies. Her work is deeply rooted in the concept of Seven Generations, where we honor the generations who have come before us, and are mindful of those yet to come and how the impact of our decisions will last for seven generations. Lead author of Embracing Cultural Competency: A Roadmap for Nonprofit Capacity Builders, she holds a bachelor’s degree in human services and a master’s of divinity. Of Haudenosaunee (Mohawk) and Quebecoise descent, she is an activist and member of an indigenous grandmothers’ circle. She and her life partner have 10 grown children and six grandchildren.
Maria Pacheco, EdD, is the executive director of The Education Alliance at Brown University, a support organization that provides services to states and schools nationwide. She is also the director of the New England Equity Assistance Center, and adjunct assistant professor of ESL and cross-cultural studies at Brown University. As a researcher, teacher, and program director, she has worked extensively in the areas of English language learners, civil rights, equity pedagogy, second language acquisition, and minority parent and community engagement. She has more than 30 years of experience addressing issues of cultural diversity in urban schools and higher education. As a practitioner/scholar, she has authored and coauthored multiple publications, proposals, and reports on bilingualism, second language acquisition, culture and learning, and equitable instructional practices.

Claire Petitmengin, PhD, completed her doctorate under the supervision of Francisco Varela at the École Polytechnique in Paris, on the subject of the lived experience that accompanies the emergence of an intuition. She has also studied Buddhist philosophy, and has 10 years of experience in information system design. She is presently professor at the Institut Mines-Télécom, and a member of the Archives Husserl (École Normale Supérieure) in Paris. Her research focuses on the usually unrecognized dynamics of lived experience and “first-person” methods enabling us to become aware of this experience and describe it. She studies the epistemological conditions of these methods, notably the validity of their results, as well as their educational, therapeutic, artistic, and technological applications. Her research also addresses the process of mutual enrichment of “first-person” and “third-person” analyses in the context of neurophenomenological projects. She has written numerous scientific articles and two books: L’expérience intuitive, and Le chemin du milieu: Introduction à la vacuité dans la pensée bouddhiste indienne. She also edited Ten Years of Viewing from Within: The Legacy of Francisco Varela, which commemorates the tenth anniversary of the publication of The View from Within, wherein Francisco Varela designed the foundations of a research program on lived experience.

Sheryl Petty, EdD, is a principal associate at the Annenberg Institute for School Reform at Brown University, a national educational equity and systems change consultant, and an associate consultant with Movement Strategy Center (Oakland, California) and Management Assistance Group (Washington, D.C.). She is lead designer for the Transforming Education Systems Alliance (TESA), which focuses on promoting aligned approaches to democratic education across sectors including policy, practice, community organizing, educator preparation and development, research, messaging, framing and communications, capacity building, standards and curriculum, and assessment. A fellow at Stanford University’s Center for Opportunity Policy in Education, she served as executive director of California Tomorrow — a research, advocacy, and training nonprofit specializing in strategies that foster equity and inclusion across the pre-kindergarten to community college (preK-14) spectrum, and managed the equity and community engagement approaches at the Stupski Foundation. She holds a bachelor of arts in mathematics, a master’s in systematic and philosophical theology, and a doctorate of education in educational leadership and change. Her expertise includes equity-driven change process facilitation, strategic visioning and analysis, coaching, and fostering collaborative relationships for the improvement of our collective life.

The Venerable Tenzin Priyadarshi is the founding director of The Dalai Lama Center for Ethics and Transformative Values at the Massachusetts Institute of Technology (MIT). Born into a Hindu Brahmin family in Vaishali, India, he chose his own path at the age of 10, entering a Buddhist monastery in Rajgir. His unique upbringing combined a modern secular education with traditional Buddhist training and ordination by His Holiness the Dalai Lama. He earned his bachelor’s degree summa cum laude as an integral honors scholar, and completed his graduate studies in comparative philosophy of religion at Harvard University in 2003. Living in the United States as a visiting scholar at Harvard and MIT, he was struck by the absence of ethics in our education. When the global financial crisis of 2008 brought new focus to that absence, he began programs to spark a conversation about ethics among MIT students. From that start, The Center was born. Since then, it has grown quickly into a collaborative think tank with global reach, engaging MIT faculty and leaders in science, engineering, business, and governance. He is the founding president of the Prajnopaya Foundation, a worldwide humanitarian organization developing innovative health, education, and social welfare programs. He serves on the board of several academic, humanitarian, and religious organizations, and teaches Buddhist philosophy and practice through the Prajnopaya Institute.

John A. Powell is executive director of the Haas Institute for a Fair and Inclusive Society (HIFIS), which supports research to generate specific prescriptions for changes in policy and practice that address disparities related to race, ethnicity, gender, sexual orientation, disability, and socioeconomics in California and nationwide. He is also the former director of the Kirwan Institute for the Study of Race and Ethnicity at The Ohio State University, and the Institute for Race and Poverty at the University of Minnesota. He led the development of an
“opportunity-based” model that connects affordable housing to racialized spaces in education, health, health care, and employment. He is the author of Racing to Justice: Transforming Our Concepts of Self and Other to Build an Inclusive Society.

Srinivas Reddy began his musical training as a guitarist and composer. In 1998, he graduated from Brown University with a bachelor of arts in South Asian Studies, and completed his senior project entitled NaadaSat, a multi-instrumental ensemble piece that reflected his growing interest in South Asian philosophy and music. After moving to San Francisco in 1998, he met his guru and mentor Sri Partha Chatterjee, a direct disciple of the late sitar maestro Pandit Nikhil Banerjee. Since then, he has dedicated himself to Indian classical music and rigorously trained with his teacher in the traditional guru-shishya style. He is a professional concert sitarist, and has given numerous recitals throughout the world. He has three albums to his credit: GITA (1999), Sitar &Tabla (2001), and Hemant & Jog (2008). In 2011 He graduated from University of California, Berkeley, with a PhD in South and Southeast Asian Studies. Under the guidance of Professor George Hart, he studied Sanskrit, Tamil, and Telugu literary traditions, and completed his thesis on the Vijayanagara emperor Krishnadevaraya and his grand Telugu epic Amuktamalyada. A translation of the work entitled Giver of the Worn Garland was published by Penguin Books in 2011. He is currently assistant professor of South and Southeast Asian Studies at IIT Gandhinagar. He spends his time performing, teaching, and conducting research in California, Rhode Island and India. www.srinivasreddy.org

Laura I. Rendón, PhD, is professor of higher education in the College of Education and Human Development at the University of Texas, San Antonio, and codirector of the Center for Research and Policy in Education. She is a recognized thought leader in the field of contemplative education, and a research specialist on college preparation, persistence, and graduation of low-income, first-generation students. She is credited with developing the theory of validation, a framework for working with and affirming low-income students. She also developed a pedagogic framework called Sentipensante (Sensing/Thinking) Pedagogy, designed to help faculty employ contemplative pedagogic strategies that emphasize holistic student development and gear students toward goals such as social activism, service to others, and personal and social responsibility. The author of Sentipensante (Sensing/Thinking) Pedagogy: Educating for Wholeness, Social Justice, and Liberation, she is one of the founders and former board chair of the National Council for Community and Education Partnerships, which is focused on providing access to college for low-income students.

June Rimmer, EdD, joined CEL in 2011 as an associate director. In this role, she develops and manages district partnerships committed to building leaders’ expertise in instructional leadership and to transforming central office. Prior to joining the CEL team, she served in numerous leadership roles in urban education settings, most recently as chief academic officer in Seattle. Before coming to CEL, she served as a program director with the Stupski Foundation in San Francisco, coaching and providing technical assistance to urban district leaders committed to reform. She was also part of a research team examining powerful student learning experiences that lead to 21st-century skills and competence as well the system-level change needed at both the district and state levels to support 21st-century learning. Her professional interests lie in the design of equity-based instructional systems, and building expertise in educators’ practice to ensure that all students — particularly our most vulnerable children — exit our systems able to thrive in our dynamic, interconnected, global community.

Robert W. Roeser, PhD, is professor of psychology in the department of applied psychology at Portland State University. His research focuses primarily on how schools, as central cultural contexts of human development, affect both academic and nonacademic aspects of “whole persons” across childhood, adolescence, and emerging adulthood. He studies how variations in various features of middle and high school environments are associated not only with variations in patterns of achievement and educational attainments among U.S. adolescent students over time, but also in their motivation to learn and student identity commitments, their feelings of emotional wellbeing, stress, and distress, and their behavioral conduct while in school. He established the Culture and Contemplation in Education Laboratory at Portland State University to study the effects of the introduction of developmentally and culturally appropriate contemplative practices into mainstream schools.

Harold D. Roth, PhD, is professor of religious studies and director of the contemplative studies initiative at Brown University. A specialist in classical Chinese religious thought, Daoism, and the comparative study of mysticism, he is a pioneer of the academic field of contemplative studies, in which he created the first university concentration program. He has published six books and more 50 scholarly articles on the history and religious thought of the Daoist tradition, the textual history and textual criticism of classical Chinese works, and contemplative studies. He has been the recipient of grants and fellowships from the American Council of Learned Societies, the National Endowment for the Humanities, and the Chiang Ching-kuo Foundation for International Scholarly Exchange.
Sharon Salzberg has been a student of meditation since 1971, and has been leading meditation retreats worldwide since 1974. She teaches both intensive awareness practice (vipassana or insight meditation) and the profound cultivation of lovingkindness and compassion (the Brahma Viharas). Sharon’s latest book is the New York Times best seller, Real Happiness: The Power of Meditation: A 28-Day Program, published by Workman Publishing (2011). She is a regular contributor to The Huffington Post and is also the author of several other books, including The Kindness Handbook (2008), The Force of Kindness (2005), Faith: Trusting Your Own Deepest Experience (2002), Lovingkindness: The Revolutionary Art of Happiness (1995), and A Heart as Wide as the World (1997). Cofounder of the Insight Meditation Society in Barre, Massachusetts, she has played a crucial role in bringing Asian meditation practices to the West. The ancient Buddhist practices of vipassana (mindfulness) and metta (lovingkindness) are the foundations of her work. “Each of us has a genuine capacity for love, forgiveness, wisdom, and compassion. Meditation awakens these qualities so that we can discover for ourselves the unique happiness that is our birthright,” she says. For more information, visit www.SharonSalzberg.com.

Saki F. Santorelli, EdD, MA, is a professor of medicine; director of the internationally acclaimed Stress Reduction Clinic; and executive director of the Center for Mindfulness in Medicine, Health Care, and Society at the University of Massachusetts Medical School. As a faculty member in the department of medicine, division of preventive and behavioral medicine, he has worked with thousands of medical patients and has educated and helped mentor generations of practitioners and researchers of mindfulness and mindfulness-based stress reduction (MBSR), engaging in more than 30,000 clinical hours of MBSR. In 2001, he founded Oasis Institute, a comprehensive professional education and training program leading to teacher certification in MBSR. In 2003, he founded (and is now chair of) an annual scientific conference on mindfulness entitled Investigating and Integrating Mindfulness into Medicine, Health Care, and the Society. In 2011, he established the annual John and Tussi Kluge Translational Research Symposium on Mindfulness. He teaches and presents internationally, and is the author of Heal Thy Self: Lessons on Mindfulness in Medicine.

Kimberly Schonert-Reichl, PhD, is a professor in the faculty of education at the University of British Columbia. She is an award-winning teacher and has been internationally recognized for her collaborative work that translates research into practice. In 2009, the Confederation of University Faculty Association awarded her with its highest distinguished academic award: the Paz Buttedahl Career Achievement Award. In 2006, she chaired a dialogue between the Dalai Lama and leading educators, researchers, and policy makers on the themes of cultivating compassion and educating the heart. In 2009, she was on a panel of leaders in education and child development in a dialogue with the Dalai Lama at the Orpheum Theatre at the Vancouver Peace Summit. Most recently, she coauthored a study examining the effectiveness of a social and emotional learning program for teachers aimed at reducing their stress and burnout. She is also conducting interdisciplinary research in collaboration with neuroscientists and psychobiologists, examining the relation of executive functions and biological processes to children’s social and emotional development. She serves on national and international advisory boards for several organizations, including the Collaborative for Academic, Social, and Emotional Learning (CASEL) Research Advisory Group, and the Mind & Life Institute’s initiative on ethics, education, and human development. She is an advisor to the Dalai Lama Center for Peace and Education in Vancouver, and is currently the chair of the Social and Emotional Learning Special Interest Group (SIG) of the American Educational Research Association.

Zindel Segal, PhD, is distinguished professor of psychology in mood disorders at the University of Toronto, Scarborough, and a senior scientist in the Campbell Family Mental Health Research Institute of the Centre for Addiction and Mental Health. He has pioneered the use of mindfulness meditation for promoting wellness in the area of mood disorders. The recipient of several awards, including the Douglas Utting Research Prize and the Mood Disorder Association of Ontario’s Hope Award, he has been continuously funded by the National Institute of Mental Health and the Canadian Institutes of Health Research for the past 15 years. His program of research has helped to characterize psychological markers of relapse vulnerability in affective disorder, especially the link between affective and self-devaluation components of dysphoria. This work has, in turn, provided an empirical rationale for offering training in mindfulness meditation to recurrently depressed patients in recovery. The author of more than 10 books and 130 scientific publications, including The Mindful Way Through Depression—A Patient Guide for Achieving Mood Balance in Everyday Life, he continues to advocate for the relevance of mindfulness-based clinical care in psychiatry and mental health.

Pamela Seigle, MS, is the executive director of Courage & Renewal Northeast at Wellesley College, an affiliate of the national Center for Courage & Renewal. She coleads the national Courage in Schools Initiative for the Center for Courage & Renewal, developing programs that bring reflective practice and focus on adult community directly to schools. She is the founder of the Open Circle® Program based at the Wellesley Centers for Women, Wellesley College. Open Circle is a leading provider of evidence-based curriculum and professional development for SEL in kindergarten through grade five. Since its inception in 1987, Open Circle has reached more than two million students and trained more than 13,000 educators. She is currently a trustee of the Con-
Tania Singer, PhD, has been the director of the department of social neuroscience at the Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig since 2010. After receiving her PhD in psychology in 2000 at the Max Planck Institute for Human Development in Berlin, she became a postdoctoral fellow at the same institution (and later, at the Wellcome Department of Imaging Neuroscience), as well as at the Institute of Cognitive Neuroscience in London. In 2006, she went to the University of Zurich to accept a position as assistant professor (and later, as inaugural chair) of social neuroscience and neuroeconomics, and as codirector of the Laboratory for Social and Neural Systems Research. Her research focuses on the foundations of human social behavior and the neuronal, developmental, and hormonal mechanisms underlying social cognition and emotions (e.g., empathy, compassion, and fairness). Moreover, she investigates the psychological and neuroscientific effects of compassion and meditation training, and other mental training techniques. Her research has been published in many renowned journals (e.g., Science, Nature), and she is the principal investigator of the ReSource project, a one-year longitudinal mental training study. She holds a cooperative research position with Dennis Snower from the Kiel Institute for the World Economy on the topic of caring economics, which is funded by the Institute of New Economic Thinking. She is a board member of the Mind & Life Institute in Hadley, Massachusetts, and an advisory board member of Mind and Life Europe.

Edward Slingerland, PhD, is a professor of Asian studies and the Canada research chair in Chinese thought and embodied cognition at the University of British Columbia, where he also holds adjunct appointments in philosophy and psychology. His research specialties and teaching interests include “warring states”; Chinese thought; religious studies (comparative religion, cognitive science, and evolution of religion); cognitive linguistics (blending and conceptual metaphor theory); ethics (virtue ethics and moral psychology); and the relationship between the humanities and the natural sciences. His publications include Effortless Action: Wu-wei as Conceptual Metaphor and Spiritual Ideal in Early China (Oxford 2003), The Analects of Confucius (Hackett 2003), What Science Offers the Humanities: Integrating Body & Culture (Cambridge 2008), and Creating Consilience: Integrating the Sciences and Humanities (coedited with Mark Collard; Oxford, 2012), as well as more than 20 referred articles in top journals in a wide variety of fields. He is currently PI on a large Canadian government grant on “The Evolution of Religion and Morality,” and director of the Cultural Evolution of Religion Research Consortium (CERC) and the Database of Religious History (DRH). His latest work — a trade book entitled Trying Not to Try: The Art and Science of Spontaneity (Crown/Random House), which integrates ancient Chinese and modern scientific understandings of spontaneity — was published in March of 2014.

Mary Taylor began studying yoga in 1971 while earning a degree in psychology. It was not until the early 1980s, when she moved to Boulder and started studying yoga with Richard Freeman, that yoga became a central thread in her life. Before that, yoga had provided a means of relieving stress, and honing a sense of focus and well-being. In 1988, she traveled to India to study with K. Pattabhi Jois, and began to see the overlay of yoga with her interests in food, cooking, movement, anatomy, and art. She has authored three cookbooks, along with What Are You Hungry For? Women, Food, and Spirituality, a book that explores yoga, meditation, and finding one’s personal dharma as a means of finding lasting meaning and happiness. As the Yoga Workshop’s director, she has attended all of Richard Freeman’s teacher trainings. She brings to her teaching a deep respect for the healing and calming effects of yoga. Her classes are engaging and fun, and are focused on the flow of breath, steady movement, and the feeling of completeness that can be cultivated through a lasting practice. For more information, visit www.yogaworkshop.com.

Evan Thompson, PhD, is professor of philosophy at the University of British Columbia, Vancouver. He received his PhD in philosophy from the University of Toronto, and his bachelor of arts degree in Asian studies from Amherst College. He works in the fields of cognitive science, philosophy of mind, phenomenology, and cross-cultural philosophy, with a particular focus on Asian philosophy and contemporary Buddhist philosophy in dialogue with Western philosophy and science. His most recent book is Waking, Dreaming, Being: New Light on the Self and Consciousness from Neuroscience, Meditation, and Philosophy (Columbia University Press, 2014). He is also the author of Mind in Life: Biology, Phenomenology, and the Sciences of Mind (Harvard University Press, 2007), and coauthor of The Embodied Mind: Cognitive Science and Human Experience (MIT Press, 1991).
Arthur Zajonc, PhD, president of the Mind & Life Institute, was professor of physics at Amherst College from 1978–2012. He has been visiting professor and research scientist at the École Normale Supérieure in Paris, the Max Planck Institute for Quantum Optics, and the Universities of Rochester, and Hannover. He has also been a Fulbright professor at the University of Innsbruck in Austria. His research has included studies in electron-atom physics; party violation in atoms; quantum optics; the experimental foundations of quantum physics; and the relationship between science, the humanities, and the contemplative traditions. While directing the Center for Contemplative Mind in Society, he fostered the use of contemplative practices in college and university classrooms. He continues to speak around the world on the importance of contemplative pedagogy.

B. Alan Wallace, PhD, began his studies of Tibetan Buddhism, language, and culture in 1970 at the University of Gottingen in Germany, and then continued his studies over the next 14 years in India, Switzerland, and the United States. Ordained as a Buddhist monk by the Dalai Lama in 1975, he has taught Buddhist meditation and philosophy worldwide since 1976, and has served as interpreter for numerous Tibetan scholars and contemplatives, including the Dalai Lama. After graduating summa cum laude from Amherst College, where he studied physics and the philosophy of science, he returned his monastic vows and went on to earn his PhD in religious studies at Stanford University. He then taught for four years in the department of religious studies at the University of California, Santa Barbara, and is now the founder and president of the Santa Barbara Institute for Consciousness Studies. He is also chairman of the Thanyapura Mind Centre in Phuket, Thailand, where he leads meditation retreats. He has edited, translated, authored, and contributed to more than 40 books on Tibetan Buddhism, medicine, language, and culture, and the interface between science and Buddhism. His most recent books include Dreaming Yourself Awake: Lucid Dreaming and Tibetan Dream Yoga for Insight and Transformation; Meditations of a Buddhist Skeptic: A Manifesto for the Mind Sciences and Contemplative Practice; Stilling the Mind: Shamatha Teachings from Dudjom Lingpa’s Vajra Essence; Minding Closely: The Four Applications of Mindfulness; Mind in the Balance: Meditation in Science, Buddhism, and Christianity; and Hidden Dimensions: The Unification of Physics and Consciousness.

Philip David Zelazo, PhD, holds an honors bachelor of arts degree from McGill and a PhD with distinction from Yale, and is currently the Nancy M. and John E. Lindahl professor at the Institute of Child Development, University of Minnesota. From 1992–2007, he taught at the University of Toronto, where he held the Canada research chair in developmental neuroscience. His research has been honored by numerous awards, including a Boyd McCandless Young Scientist Award from the American Psychological Association (APA), and Canada’s Top 40 Under 40 award. He is a fellow of several organizations, including the APA and the Mind & Life Institute; president of the Jean Piaget Society; and a member of numerous editorial boards, including Child Development & Emotion, Development, and Psychopathology. He is editor of the two-volume Oxford Handbook of Developmental Psychology (2013), lead developer of the executive function measures for the NIH Toolbox, and the Cognitive Health Domain lead scientist for the National Children’s Study.

Kristen Zimmerman is a senior fellow at the Movement Strategy Center. She was drawn to the Center for its spirit of innovation and the opportunity to bring bold, audacious ideas to life. She has stayed because of a shared commitment to risk taking and embodying new ways of being. As a senior fellow, she leads the development of the Center’s transformative movement-building methodology. Her primary focus is the integration of mind-body practices with movement building and social change strategy. Her writing, which includes Out of the Spiritual Closet: Organizers Transforming the Practice of Social Justice, has helped to catalyze and shift innovative work in multiple sectors. She currently serves on the design team and faculty for the NoVo Foundation’s Move to End Violence — a 10-year movement building initiative to end gender-based violence. She trains in Zen, is an activist-organizer in special education, and is the proud and in-love parent of Jonah, her nine-year-old son with Down syndrome.

Diana Chapman Walsh, PhD, currently serves on the governing boards of the Massachusetts Institute of Technology (MIT), the Broad Institute of MIT and Harvard, the Kaiser Family Foundation, the Institute for Healthcare Improvement, the Mind & Life Institute, and on national advisory boards. She was a director of the State Street Corporation (1999–2007) and a trustee of Amherst College (1998–2010). Her term as president of Wellesley College (1993–2007) was marked by educational innovation, including a revision of the curriculum and expanded programs in global education, the humanities, internships and service learning, interdisciplinary teaching and learning, and religious and spiritual life. President Walsh evolved a distinctive style of reflective leadership rooted in a network of resilient partnerships and anchored in the belief that trustworthy leadership starts from within.

Kristen Zimmerman has been a senior fellow at the Movement Strategy Center. She was drawn to the Center for its spirit of innovation and the opportunity to bring bold, audacious ideas to life. She has stayed because of a shared commitment to risk taking and embodying new ways of being. As a senior fellow, she leads the development of the Center’s transformative movement-building methodology. Her primary focus is the integration of mind-body practices with movement building and social change strategy. Her writing, which includes Out of the Spiritual Closet: Organizers Transforming the Practice of Social Justice, has helped to catalyze and shift innovative work in multiple sectors. She currently serves on the design team and faculty for the NoVo Foundation’s Move to End Violence — a 10-year movement building initiative to end gender-based violence. She trains in Zen, is an activist-organizer in special education, and is the proud and in-love parent of Jonah, her nine-year-old son with Down syndrome.

Arthur Zajonc, PhD, president of the Mind & Life Institute, was professor of physics at Amherst College from 1978–2012. He has been visiting professor and research scientist at the École Normale Supérieure in Paris, the Max Planck Institute for Quantum Optics, and the Universities of Rochester, and Hannover. He has also been a Fulbright professor at the University of Innsbruck in Austria. His research has included studies in electron-atom physics; party violation in atoms; quantum optics; the experimental foundations of quantum physics; and the relationship between science, the humanities, and the contemplative traditions. While directing the Center for Contemplative Mind in Society, he fostered the use of contemplative practices in college and university classrooms. He continues to speak around the world on the importance of contemplative pedagogy.

B. Alan Wallace, PhD, began his studies of Tibetan Buddhism, language, and culture in 1970 at the University of Gottingen in Germany, and then continued his studies over the next 14 years in India, Switzerland, and the United States. Ordained as a Buddhist monk by the Dalai Lama in 1975, he has taught Buddhist meditation and philosophy worldwide since 1976, and has served as interpreter for numerous Tibetan scholars and contemplatives, including the Dalai Lama. After graduating summa cum laude from Amherst College, where he studied physics and the philosophy of science, he returned his monastic vows and went on to earn his PhD in religious studies at Stanford University. He then taught for four years in the department of religious studies at the University of California, Santa Barbara, and is now the founder and president of the Santa Barbara Institute for Consciousness Studies. He is also chairman of the Thanyapura Mind Centre in Phuket, Thailand, where he leads meditation retreats. He has edited, translated, authored, and contributed to more than 40 books on Tibetan Buddhism, medicine, language, and culture, and the interface between science and Buddhism. His most recent books include Dreaming Yourself Awake: Lucid Dreaming and Tibetan Dream Yoga for Insight and Transformation; Meditations of a Buddhist Skeptic: A Manifesto for the Mind Sciences and Contemplative Practice; Stilling the Mind: Shamatha Teachings from Dudjom Lingpa’s Vajra Essence; Minding Closely: The Four Applications of Mindfulness; Mind in the Balance: Meditation in Science, Buddhism, and Christianity; and Hidden Dimensions: The Unification of Physics and Consciousness.

Diana Chapman Walsh, PhD, currently serves on the governing boards of the Massachusetts Institute of Technology (MIT), the Broad Institute of MIT and Harvard, the Kaiser Family Foundation, the Institute for Healthcare Improvement, the Mind & Life Institute, and on national advisory boards. She was a director of the State Street Corporation (1999–2007) and a trustee of Amherst College (1998–2010). Her term as president of Wellesley College (1993–2007) was marked by educational innovation, including a revision of the curriculum and expanded programs in global education, the humanities, internships and service learning, interdisciplinary teaching and learning, and religious and spiritual life. President Walsh evolved a distinctive style of reflective leadership rooted in a network of resilient partnerships and anchored in the belief that trustworthy leadership starts from within.

Kristen Zimmerman is a senior fellow at the Movement Strategy Center. She was drawn to the Center for its spirit of innovation and the opportunity to bring bold, audacious ideas to life. She has stayed because of a shared commitment to risk taking and embodying new ways of being. As a senior fellow, she leads the development of the Center’s transformative movement-building methodology. Her primary focus is the integration of mind-body practices with movement building and social change strategy. Her writing, which includes Out of the Spiritual Closet: Organizers Transforming the Practice of Social Justice, has helped to catalyze and shift innovative work in multiple sectors. She currently serves on the design team and faculty for the NoVo Foundation’s Move to End Violence — a 10-year movement building initiative to end gender-based violence. She trains in Zen, is an activist-organizer in special education, and is the proud and in-love parent of Jonah, her nine-year-old son with Down syndrome.
First, Mind & Life would like to extend special thanks to the Hershey Family Foundation who made it possible to offer 317 student scholarships for this event.

Boundless gratitude to the following sponsors of ISCS:

**BENEFACOR**

**TASCHEN**

TASCHEN, founded as a small comic shop in Cologne, Germany in 1980, is today renowned around the world for publishing ambitious and accessible illustrated books on art, architecture, pop culture and other topics. Since our adventure began, we have always been committed to diversity, innovation, and excellence. We strive to treat every topic with the same respect, and to produce, design, and package each of our books beautifully and uniquely.

[www.taschen.com](http://www.taschen.com)

**PLATINUM SPONSORS**

Anonymous (3)

**GOLD SPONSORS**

The Gere Foundation

**SILVER SPONSORS**

Anonymous

Bon Eau Foundation

Missy Carter

Center for Mindfulness & Compassion, Cambridge Health Alliance

Joanne Clark

Hemera Foundation

Lori LaRiviere

Naropa University

Fred Randall

Susie Sanders

The Institute for Meditation and Psychotherapy

Julia Ward

Windhorse Integrative Mental Health

Gratitude to our program co-sponsors for the Education Pre-conference, Contemplative Mind in Society and the Garrison Institute.

**CONTEMPLATIVE ARTS SPONSORS**

**Lesley UNIVERSITY**

**Walker Family Foundation**

Murals of Tibet © Thomas Laird, TASCHEN, 2015
The Mind & Life Institute would like to acknowledge and thank the following individuals and organizations for their generous support of all Mind and Life’s work.

**SUSTAINING PATRONS**
(gifts of $30,000 or more, commitment for a minimum of three years)
1440 Fund of Silicon Valley Community Foundation
Anonymous Foundation
Anonymous Individual
Steve and Joan Belkin
The Dalai Lama Trust
Ann Down
The Eagle and the Hawk Foundation
Raymond and Jacquelyn Gellein
George Family Foundation,
Penny and Bill George
Klaus Hebben
Hershey Family Foundation
HopeLab
Constance Kemmerer
The Debbie & Don Morrison Family Charitable Foundation
Pierre and Pam Omidyar
Tan Teo Charitable Foundation
John Templeton Foundation
Tuttleman Family Foundation
Walker Family Foundation
The Adam J. Weissman Foundation

**PARTNERS**
(gifts of $1,000 to $9,999)
Anonymous Individuals (5)
Academy for the Love of Learning
Marz Attar
Tom Attar
Barry Baer
Bon Eau Foundation
Victor and Roberta Bradford
Missy Carter
Joanne Clark
Center for Mindfulness and Compassion,
Cambridge Health Alliance
Richard and Susan Davidson
Melanie Dean
Jacqui and Scott DeFelice
The Gere Foundation
Natasha Giraudie
Denise Greger
Olivia Hansen
Hemera Foundation
Dan Hruza
The Institute for Meditation and Psychotherapy
Carolyn Jacobs
Jonathan Rose Companies
Wesley Johnson
Mathias Jourdain
Feng-Yang Kuo
Lori LaRiviere
Cathy Lewis, in Memory of Nathaniel Lewis Wilkins
Christian Mortier
Barbara Muller-Ackerman
Naropa University
Khoa Nguyen
Francene Orrok
Fred Randall
Presley O. and Patricia Stacey Reed
Paula Sager
Susie Sanders
Douglas and Ann Scott Dumas
Laurence Shick
Friends and Family of David Kieran Spyke
Robert and Nena Thurman
Annie Umbricht
Julia Ward
Windhorse Integrative Mental Health
The Windmill Fund
Arthur Zajonc

**MAJOR SPONSORS, MIND AND LIFE EUROPE**
(gifts over CHF 20,000)
Anonymous
Lily Bafandi
Heinz Buhof
Liselotte Irniger
Charles-Antoine Janssen
Sibylle Pacher-Oltramare
Ferdinand Pacher
Dieter Paulmann
Hanna Paulmann
Renaud Samyn
Monica Vögele

**MAJOR SPONSORS**
(gifts of $10,000 or more)
Anonymous Individuals (4)
The Baumann Foundation
Leslie Lykes de Galbert
Fetzer Institute
Daniel Goleman
Jon Kabat-Zinn
Kalliopiia Foundation
Ashish and Rachna Kulshrestha
Lesley University
Harald Link
Lostand Foundation
Yaffa and Paul Maritz
Sager Family Traveling Foundation & Roadshow
Jeane Schwarzkopf
Bennett Shapiro and Frederika Foster Shapiro
TASCHEN
Diana Chapman Walsh
Joni Winston

The Mind & Life Institute
MIND & LIFE INSTITUTE

MIND & LIFE

H. H. the XIV Dalai Lama
Honorary Chairman

R. Adam Engle, JD, MBA
Co-Founder, Past Chair

Francisco J. Varela, PhD
Co-Founder (1946-2001)

Arthur Zajonc, PhD
Mind and Life President

BOARD OF DIRECTORS

Diana Chapman Walsh, PhD
President Emerita, Wellesley College

Richard J. Davidson, PhD
University of Wisconsin, Madison

Raymond L. Gellein, Jr., MBA
Strategic Hotels & Resorts, Inc.
Mind and Life Vice Chair, Treasurer

Daniel Goleman, PhD
Psychologist, Author

Roshi Joan Halifax, PhD
Upaya Zen Center

Barry Hershey, MFA
Filmmaker

Carolyn Jacobs, PhD
Smith College School for Social Work

Jon Kabat-Zinn, PhD
University of Massachusetts Medical School

Thupten Jinpa, PhD
Institute of Tibetan Classics
Mind and Life Chair

Bennett M. Shapiro, MD
Merck Research Laboratories (retired)

Tania Singer, PhD
Max Planck Institute for Human Cognitive and Brain Sciences

Aaron Stern
Academy for the Love of Learning

MIND & LIFE STAFF

Arthur Zajonc, President
Benjamin Babbott, Operations Associate
B. Grace Bullock, Senior Research Scientist
Kathryn Byrnes, Program Officer
Jacqui DeFelice, Director of Advancement & Global Development
Ned Dunn, IT Manager
Katie Gay, Research Associate
Kaia Goleman, Administrative Assistant
Jensey Anjali Graham, Executive Assistant to the President
Wendy Hasenkamp, Senior Scientific Officer
Chris Kaplan, Research Associate
Liza Katz, Operations Manager
Heather Lee Lohr, Director of Operations
Lila Mereschuk, Controller
Kim Nolan, Program Officer
John Pearson, Director of Research & Programs
Sophia Awad Rice, Operations Manager
Christine Thibodeau, Finance Associate

MIND & LIFE EUROPE

BOARD OF DIRECTORS

Michel Bitbol, MD, PhD
Centre National de la Recherche Scientifique, Paris

Amy Cohen-Varela, DESS
Mind and Life Europe Chair

Paul Grossman, PhD
University Hospital, Basel

Roshi Joan Halifax, PhD
Upaya Zen Center

Charles-Antoine Janssen
Kois Invest, Brussels

Brussels University, Solvay Brussels School of Economics & Management

Cornelius Pietzner, BA
Alterra Impact Finance, Zürich

Matthieu Ricard, PhD
Shechen Monastery, Nepal

Mind and Life Europe Secretary

Tania Singer, PhD
Max Planck Institute for Human Cognitive and Brain Sciences

Mind and Life Europe Vice Chair

Wolf Singer, MD, PhD
Director emeritus, Max Planck Institute for Brain Research, Frankfurt

Arthur Zajonc, PhD
President, Mind & Life Institute

Program designed and produced by
John Hall Design Group, Beverly, MA
www.johnhalldesign.com
### NEARBY DINING OPTIONS

<table>
<thead>
<tr>
<th>#</th>
<th>NAME</th>
<th>CUISINE</th>
<th>ADDRESS</th>
<th>WALK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5 Napkin Burger</td>
<td>American</td>
<td>105 Huntington Ave.</td>
<td>3 min.</td>
</tr>
<tr>
<td>2</td>
<td>Abe and Louie’s</td>
<td>Steakhouse</td>
<td>793 Boylston St.</td>
<td>5 min.</td>
</tr>
<tr>
<td>3</td>
<td>Atlantic Fish Company</td>
<td>Seafood</td>
<td>761 Boylston St.</td>
<td>4 min.</td>
</tr>
<tr>
<td>4</td>
<td>Au Bon Pain</td>
<td>American</td>
<td>100 Huntington Ave.</td>
<td>6 min.</td>
</tr>
<tr>
<td>5</td>
<td>Bangkok Blue</td>
<td>Thai</td>
<td>651 Boylston St.</td>
<td>5 min.</td>
</tr>
<tr>
<td>6</td>
<td>Brasserie JO</td>
<td>French</td>
<td>120 Huntington Ave.</td>
<td>3 min.</td>
</tr>
<tr>
<td>8</td>
<td>Café Jaffa</td>
<td>Middle Eastern</td>
<td>48 Gloucester St.</td>
<td>7 min.</td>
</tr>
<tr>
<td>9</td>
<td>California Pizza Kitchen</td>
<td>Pizza</td>
<td>Prudential Center, 800 Boylston St.</td>
<td>2 min.</td>
</tr>
<tr>
<td>10</td>
<td>Casa Romero</td>
<td>Mexican</td>
<td>30 Gloucester St.</td>
<td>9 min.</td>
</tr>
<tr>
<td>11</td>
<td>Chilli Duck Thai Cuisine</td>
<td>Thai</td>
<td>829 Boylston St.</td>
<td>5 min.</td>
</tr>
<tr>
<td>12</td>
<td>Dunkin’ Donuts</td>
<td>Coffee/Breakfast</td>
<td>145 Dartmouth St.</td>
<td>5 min.</td>
</tr>
<tr>
<td>13</td>
<td>fiRE &amp; iCE</td>
<td>Fusion</td>
<td>205 Berkeley St.</td>
<td>10 min.</td>
</tr>
<tr>
<td>14</td>
<td>Haru</td>
<td>Japanese</td>
<td>Prudential Center, 800 Boylston St.</td>
<td>2 min.</td>
</tr>
<tr>
<td>15</td>
<td>Kashmir</td>
<td>Indian</td>
<td>279 Newbury St.</td>
<td>8 min.</td>
</tr>
<tr>
<td>16</td>
<td>L’Espelier</td>
<td>French/American</td>
<td>Prudential Center, 800 Boylston St.</td>
<td>2 min.</td>
</tr>
<tr>
<td>17</td>
<td>Legal Sea Food</td>
<td>Seafood</td>
<td>Prudential Center, 800 Boylston St.</td>
<td>2 min.</td>
</tr>
<tr>
<td>19</td>
<td>Lucca Back Bay</td>
<td>Italian</td>
<td>116 Huntington Ave.</td>
<td>1 min.</td>
</tr>
<tr>
<td>20</td>
<td>Mela</td>
<td>Indian</td>
<td>578 Tremont St.</td>
<td>12 min.</td>
</tr>
<tr>
<td>21</td>
<td>Mistral</td>
<td>French</td>
<td>223 Columbus Ave.</td>
<td>8 min.</td>
</tr>
<tr>
<td>22</td>
<td>PF Changs</td>
<td>Chinese</td>
<td>Prudential Center, 800 Boylston St.</td>
<td>2 min.</td>
</tr>
<tr>
<td>24</td>
<td>Piattini Wine Cafe</td>
<td>Italian</td>
<td>226 Newbury St.</td>
<td>7 min.</td>
</tr>
<tr>
<td>25</td>
<td>Starbucks</td>
<td>Coffee/Breakfast</td>
<td>10 Huntington Ave.</td>
<td>3 min.</td>
</tr>
<tr>
<td>26</td>
<td>Steve’s Greek Cuisine</td>
<td>Greek</td>
<td>316 Newbury St.</td>
<td>9 min.</td>
</tr>
<tr>
<td>27</td>
<td>Subway</td>
<td>Sandwiches</td>
<td>31 St. James Ave.</td>
<td>12 min.</td>
</tr>
<tr>
<td>28</td>
<td>Tapeo</td>
<td>Tapas</td>
<td>266 Newbury St.</td>
<td>8 min.</td>
</tr>
<tr>
<td>29</td>
<td>The Cheesecake Factory</td>
<td>American</td>
<td>115 Huntington Ave.</td>
<td>3 min.</td>
</tr>
<tr>
<td>30</td>
<td>The Courtyard Restaurant</td>
<td>American</td>
<td>Boston Public Library 700 Boylston St.</td>
<td>5 min.</td>
</tr>
<tr>
<td>31</td>
<td>The Parish Cafe</td>
<td>American/Sandwiches</td>
<td>361 Boylston St.</td>
<td>12 min.</td>
</tr>
<tr>
<td>32</td>
<td>The Salty Pig</td>
<td>Charcuterie/American</td>
<td>130 Dartmouth St.</td>
<td>6 min.</td>
</tr>
<tr>
<td>33</td>
<td>Thornton’s Eatery</td>
<td>American/Breakfast</td>
<td>150 Huntington Ave.</td>
<td>5 min.</td>
</tr>
<tr>
<td>34</td>
<td>Top of the Hub</td>
<td>American</td>
<td>Prudential Center, 800 Boylston St.</td>
<td>9 min.</td>
</tr>
<tr>
<td>35</td>
<td>Whole Foods Market</td>
<td>Grocery/Deli</td>
<td>15 Westland Ave.</td>
<td>12 min.</td>
</tr>
</tbody>
</table>

Please give us your feedback

Tell us about your experience at the International Symposium for Contemplative Studies by completing this brief survey:

We would like to thank all the speakers and presenters, volunteers, sponsors, staff and the businesses and organizations who have helped to make this collaborative event a reality. We hope the benefits of this gathering will have innumerable positive implications for years to come.
**ISCS 2014 Program Overview**

**MIND & LIFE INSTITUTE**

4 BAY ROAD, SUITE 101

HADLEY, MA 01035

WWW.MINDANDLIFE.ORG

<table>
<thead>
<tr>
<th>Sunday, November 2</th>
<th>Saturday, November 1</th>
<th>Friday, October 31</th>
<th>Thursday, October 30</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Track</strong></td>
<td><strong>Contemplative</strong></td>
<td><strong>Main Track</strong></td>
<td><strong>Contemplative</strong></td>
</tr>
<tr>
<td><strong>6:00 AM</strong></td>
<td><strong>7:00 AM</strong></td>
<td><strong>6:00 AM</strong></td>
<td><strong>7:00 AM</strong></td>
</tr>
<tr>
<td><strong>Yoga</strong></td>
<td><strong>Breakfast</strong></td>
<td><strong>Yoga</strong></td>
<td><strong>Breakfast</strong></td>
</tr>
<tr>
<td><strong>7:00 AM</strong></td>
<td><strong>7:30 AM</strong></td>
<td><strong>7:30 AM</strong></td>
<td><strong>9:00 AM</strong></td>
</tr>
<tr>
<td><strong>Contemplative</strong></td>
<td><strong>Practice</strong></td>
<td><strong>Contemplative</strong></td>
<td><strong>Practice</strong></td>
</tr>
<tr>
<td><strong>8:20 AM</strong></td>
<td><strong>9:00 AM</strong></td>
<td><strong>9:00 AM</strong></td>
<td><strong>10:00 AM</strong></td>
</tr>
<tr>
<td><strong>Concurrent</strong></td>
<td><strong>Session</strong></td>
<td><strong>Concurrent</strong></td>
<td><strong>Session</strong></td>
</tr>
<tr>
<td><strong>9:45 AM</strong></td>
<td><strong>10:15 AM</strong></td>
<td><strong>10:15 AM</strong></td>
<td><strong>10:15 AM</strong></td>
</tr>
<tr>
<td><strong>Closing</strong></td>
<td><strong>Keynote</strong></td>
<td><strong>Keynote</strong></td>
<td><strong>Keynote</strong></td>
</tr>
<tr>
<td><strong>6:00 PM</strong></td>
<td><strong>Banquet Dinner</strong></td>
<td><strong>Banquet Dinner</strong></td>
<td><strong>Banquet Dinner</strong></td>
</tr>
<tr>
<td><strong>8:00 PM</strong></td>
<td><strong>Coffee &amp; Tea Break</strong></td>
<td><strong>Coffee &amp; Tea Break</strong></td>
<td><strong>Coffee &amp; Tea Break</strong></td>
</tr>
<tr>
<td><strong>10:00 PM</strong></td>
<td><strong>Live Music</strong></td>
<td><strong>Live Music</strong></td>
<td><strong>Live Music</strong></td>
</tr>
</tbody>
</table>

*Note: Times and activities are approximate and subject to change.*

---

**Program Overview:**

- **Main Track** and **Contemplative Track** activities are scheduled for each day, with varying sessions and workshops.
- Keynote sessions are highlighted in red.
-_breaks are indicated in green.
- Live music events are marked in blue.

---

**Venue Information:**

MIND & LIFE INSTITUTE

4 BAY ROAD, SUITE 101

HADLEY, MA 01035

WWW.MINDANDLIFE.ORG