



2020

MIND & LIFE INSTITUTE

Contemplative Research  
CONFERENCE

## CRC 2020 Symposia Schedule

Thursday, Nov 5

### Room A: Symposium

*Organizer:*

David Germano, University of Virginia

*Title:*

**Contemplative Literacy - Tibetan Buddhism, Humanities Scholarship, and Scientific Research**

*Moderator:*

Melissa Rosenkranz, University of Wisconsin-Madison

*Speakers:*

David Germano, University of Virginia

John Dunne, University of Wisconsin-Madison

David DiValerio, University of Wisconsin-Milwaukee

*Abstract:*

Our symposium will focus on depth analysis of Tibetan Buddhist contemplative practices in multiple variations to discern their underlying lexicon, grammar, semantics, communicative contexts, hermeneutics, and basic logic undergirding their composition. We will base ourselves on a notion of contemplative literacy: a lexicon of constituent elements; a grammar that guides how those elements are combined to form meaningful wholes; complex communicative contexts in which those combined elements are deployed to constitute a fuller system; the genres by which they are grouped together and thus combined into larger wholes consisting of multiple practices; and the hermeneutical frameworks through which they are interpreted. This allows us to discern the underlying constituent elements, rules, structures, and contexts that govern the creation, use, and understanding of contemplative practices. Such scholarly production also provides scientists far more insight into the dynamics and varieties of these practices. David Germano of the University of Virginia will explore practices from the Great Perfection (rdzogs chen) tradition, while John Dunne of the University of Wisconsin at Madison will focus on practices from the Great Seal (phyag rgya chen po, Skt.

mahāmudrā) tradition; David DiValerio of the University of Wisconsin at Milwaukee will focus on the larger retreat culture in which these practices are sequenced with other practices. Both of these contemplative styles have been the focus of scientific research, and they have also informed contemporary mindfulness. With this in mind, Melissa Rosenkranz of UW-Madison will then respond to these talks from a scientific perspective to assess the implications of such work for the scientific study of contemplation.

(i) The lexicon of contemplative practices involves specific modular elements that are involved in a meditative practice. Descriptions of practices often refer to such modular elements by type for common stock elements, rather than detail specifics. Authors assume a reader will know how to perform such a contemplative element in some way, and signal that the details are irrelevant.

(ii) In terms of grammar, in Tibetan contemplative traditions the general structure of a contemplative practice involves preliminaries (sngon 'gro), a main phase (dngos gzhi), and a conclusion (rjes). This threefold rubric can also group together a variety of practices into overarching sequences for retreats or “stages of the path” (lam rim). Thus any given practice might function as a “preliminary” for yet another practice, such that one would be expected to master the former as an essential context before proceeding to the latter. Entire practices can also be reduced to brief forms and constitute modular units inserted into another larger practice as constituent elements in the course of a single meditative session. There are myriad implicit rules and expectations about what elements follow what other elements, and functions of specific elements in terms of combining these elements into dynamic wholes.

(iii) As for communicative contexts, a contemplative practice can only be understood through a full analysis and appreciation of the constitutive roles of its many contexts. It remains to be seen whether such contexts modulate some aspect of the practice or are central mediators that are potentially crucial for the main impact of a practice:

- (1) Customization: Variability in Scope and Procedures;
- (2) Curricular: Pathways Combining Diverse Practices into Integrated Wholes;
- (3) Instructional: Transmissional Contexts;
- (4) Outlooks: Intentions, Motivations, Expectations, and Dispositions;
- (5) Spatial: Natural, Built, and Aesthetic Environments;
- (6) Temporal: Duration, Frequency, Extent, and Calendars;
- (7) Social: Immediate, Communal, and Institutional Social Settings;
- (8) Philosophical: Theoretical and Conceptual Frameworks;
- (9) Cultural: Local Cosmologies, Values, Understandings, and Practices;
- (10) Aesthetic: Images, Metaphors, and Art; and
- (11) Individual Differences: Immediate, Short-term, and Long-term Variable Understanding, Conditions, and Character of an Individual Practitioner.

(iv) Genres are categories of multiple contemplative practices with shared attributes, which in Tibetan religions is the subject of extensive theorization, articulation, and categorization. The traditions offer extensive typologies of contemplative practices at various scopes from broad to narrow, and any given practice might belong to multiple genres. These typologies are intertwined with various sequences of practices woven into “stages of the path,” as well as involved into hierarchical relationships that identify practices as superior or inferior to other practices.

(v) Hermeneutics then is how we interpret these contemplative traditions from a diverse array of perspectives. Contemplation involves complex human cultural practices and traditions that are deeply embedded within religious, political, social, economic, biological, and other systems that govern human experience, and as such, are inextricably bound up with them. Thus we can interpret contemplative traditions from diverse perspectives – philosophically, phenomenologically, psychologically, politically, socially, neurologically, institutionally, educationally, and so forth.

## Room B: Symposium

*Organizer:*

Zev Schuman-Olivier, Harvard Medical School

*Title:*

### **Mindfulness and Interoceptive Awareness in a Multi-Cultural World**

*Moderator:*

Zev Schuman-Olivier, Harvard Medical School/Cambridge Health Alliance Center for Mindfulness and Compassion

*Speakers:*

Dominique Malebranche, Lesley University/ CHA Center for Mindfulness and Compassion  
Misan (Wan Doo Kim) Sunim, Korea Advanced Institute of Science and Technology  
Wolf Mehling, University of California San Francisco/ Osher Center for Integrative Medicine

*Abstract:*

Mindful attention to breathing and body sensations are key elements of contemplative practice that impact interoceptive awareness. Researchers, clinicians, educators and contemplatives present research and cross-cultural perspectives. Dominique A. Malebranche, PhD will discuss how the site of the body is critical for addressing and resourcing cultural experience and how mindfulness and interoception can offer a medium for exploring the impact of systemic oppression and developing cultural humility. She will also share clinical and trauma-informed perspectives to discuss how cultural differences and social power impact an individual's capacity to be embodied and experience interoceptive awareness. Venerable Misan (Wan Doo Kim), PhD will discuss the role of interoceptive bodily awareness in meditative spiritual practice across traditions from a Korean perspective. He will review embodiment and interoceptive bodily awareness in early text sources of Theravada and Mahayana-oriented Zen approaches, its foundational influence in Korean Seon traditions, and its integration in both body-centered mindfulness-based and compassion-based interventions. Zev Schuman-Olivier, MD will describe the role interoceptive awareness plays in catalyzing behavior change during mindfulness training, reporting on data from the Mindful-PC Randomized Controlled Trial, which compared an 8-week mindfulness-based intervention with a 60-minute mindfulness introduction, among a diverse primary care population with depression/anxiety/stress disorders. This NIH Science of Behavior Change study investigated the mediating effect of interoceptive awareness on health behavior change, while also collecting neuroimaging and interoceptive accuracy data. Wolf Mehling, MD will summarize studies of Asian language translations of the Multidimensional Assessment of Interoceptive Awareness (MAIA): Japanese, Korean, Chinese, Malay, and report from focus groups with bi-cultural Japanese-Americans, for whom "Self-Regulation" aims at a sense of belonging, rather than at self-comforting individual homeostasis.

## Room C: Symposium

*Organizer:*

Anthony Zanesco, University of Miami

*Title:*

### **The view from within: Integrating first-person methods into psychological and neuroscientific research**

*Moderator/Speaker:*

Anthony Zanesco, University of Miami

*Speakers:*

Aviva Berkovich-Ohana, University of Haifa  
Oussama Abdoun, Lyon Neuroscience Research Center

*Abstract:*

Integrating the view from within into psychological and neuroscientific research is critical for understanding the human mind. But thoughts and internal experiences dynamically evolve from one moment to the next, making it challenging to study these experiences with fidelity and relate them to ongoing brain activity and behavior. Despite these limitations, introspection and first-person reporting provide meaning and context to patterns of behavior or brain activity, making it necessary to draw on first-person experience for a more comprehensive understanding of the human mind. This symposium will explore unique methods and challenges involved in integrating first-person experience into psychological and neuroscientific research. Three presenters will discuss frameworks for applying experience sampling, neurophenomenology, introspection, and contemplative practice to the study of first-person experience and its integration with measures of brain and behavior. These considerations inform attempts to integrate internal experiences into psychological and neuroscientific studies and are of value for research on contemplative experience more broadly. Dr. Anthony Zanesco will discuss how first-person methods can inform how we understand the spontaneous dynamics of the brain. Brain activity fluctuates continuously according to the spontaneous dynamics of coordinated brain networks. Understanding the significance of this activity is challenging because it occurs even in the absence of external stimulation and may be coupled to ongoing changes in thought and experience that are only accessible through self-report. But reporting on thoughts, experiences, and attentional states is also complicated by their multidimensional and dynamic nature, requiring methodological approaches that can capture the multivariate temporal dynamics of inner experience. Dr. Zanesco will share his research using experience sampling and retrospective reports of mind wandering and spontaneous thought to understand the spontaneous dynamics of the brain. This research employs novel methods to segment spontaneous electroencephalography (EEG) into discrete brain electric microstates and characterize dynamic and multivariate associations between microstates and ongoing experience, with the goal of mutually informing spontaneous brain activity and inner experience. Dr. Aviva Berkovich-Ohana will describe the neurophenomenological approach and its attempt to create mutual constraints between first-person and third-person research approaches. It will be suggested that first-person accounts of subjective experience can be placed on a complexity continuum ranging

between thick and thin phenomenology, highlighting the tension and trade-off inherent to the neurophenomenological attempt to naturalize phenomenology. A typology of bridges that create mutual constraints between first-person and third-person approaches will be introduced. These include: (a) Front-loading phenomenological insights into experimental design; (b) Phenomenological validation of neurobiological accounts; (c) Joint analyses of first-person and third-person person data; (d) Using physiological data to guide investigation of subjective experience; (e) Re-analyzing the first-person according to the first-person-enriched third-person analyses; and (f) Mathematical or cognitive modeling. The utility of alternating between these bridges, depending on the available experimental resources, domain of interest and level of sought articulation, will be demonstrated through an empirical investigation of one's sense of self, in collaboration with long-term meditators. Dr. Berkovich-Ohana will also demonstrate how this theory can be put into practice by describing a decade of neurophenomenological studies investigating the sense of self with increasing focus on its embodied, and minimal, aspects. These aspects are accessed via the dissolution of the sense-of-boundaries, shedding new light on the multi-dimensionality and flexibility of embodied selfhood. We emphasize the evolving neurophenomenological dialogue, showing how consecutive studies, placed differently on the thin-to-thick first-person continuum, advance the research project by using the bridging principles appropriate for each stage. Dr. Oussama Abdoun will present his attempts to address some of the challenges associated with the joint analysis of quantitative first-person and third-person data in consciousness studies. He will first address the age-old debate about the validity and reliability of first-person accounts. Psychometricians have proposed various methods to operationalize these epistemic properties in the context of self-administered psychological tests. Unfortunately, those methods are not easily applicable to self-reports of mental phenomena due to the multidimensional, dynamical and largely pre-reflective nature of lived experience. Dr Abdoun will present alternative strategies, including the phenomenological training of research participants, and the application of Cronbach and Meehl's concept of nomological net to the phenomenological dimensions of contemplative experience. He will then describe how characteristics of the data and/or critical epistemological considerations can pose difficulties when combining first and third person data in traditional statistical models. He will suggest that these difficulties can be overcome by forsaking the usual focus on inference in favor of alternative statistical procedures such as variable selection or prediction. His presentation will be illustrated throughout with data collected as part of Antoine Lutz' Brain and Mindfulness ERC project.

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Friday, Nov 6

## Room A: Symposium

*Organizer:*

Ute Thiermann, Imperial College London

*Title:*

### **Exploring the role of contemplative practices for human-nature relationships and sustainability**

*Moderator:*

Ute Thiermann, Imperial College London

*Speakers:*

Carine Gibert, Lycee Francais NY & Grounded in Motion

Audrey Girard, University of Montreal

Pooja Sahni, Indian Institute of Technology Delhi

*Abstract:*

For decades, environmental influencers have been struggling to design interventions that promote long-lasting behavior change in individuals, and that can help create the social and political willingness to enforce stronger actions that could prevent climate change and the further destruction of ecosystems. Evidence shows that contemplative practices positively affect pro-sociality, but less is known about their impact on pro-environmental behaviors (PEB). Our team of scholars and practitioners from various disciplines and methodological angles -- neuroscience, environmental psychology, social studies, education -- offers insights into the topic from three research perspectives as well as practical experience. The goal of the symposium is to reveal how contemplative practices might shape pro-environmental motivations and behaviors. To balance the intellectual and experiential demands of the conference, this symposium will lead into the Q&A with an engaging experiential practice that allows the audience to embody their learning on a deeper level. The first presentation (Ute Thiermann) opens the symposium with an introduction into the 2-pathway model for PEB. This model builds on mainstream models for PEB change while reinforcing the importance of the relational bonds with nature in the motivational processes for PEB. The remainder of the presentation is dedicated to present data that show how pro-environmental motivations and dietary environmental impact vary with meditation experience. The study follows a cross-sectional approach based on a survey with 300 non-meditators, novice meditators and advanced meditators who responded to questions about their relationship with nature, motivation towards the environment and weekly intake of animal-based proteins. Results show that advanced meditators, who reported high levels of connectedness with nature, subjective happiness and dispositional mindfulness, showed more concern for the environment. They also demonstrated the lowest levels of greenhouse gas emissions, land occupation and water use related to their animal-protein consumption and reported more integrated

motivation towards the environment than non-meditators. The second presentation (Pooja Sahni) zooms closer into the human-nature relationship by presenting evidence from a cross-sectional survey with 334 adults and experimental work in a laboratory setting to study the immediate effect of nature exposure on cognitive functioning. Survey results confirm that frequency of visit to nature rich spaces in respondents' communities has a significant association with dispositional mindfulness, nature relatedness and PEB. The analysis also sheds light on the role childhood experiences play in the associations between nature relatedness, mindfulness and pro-ecological behaviors. The complementary experimental study explores the effects of nature experience on neuro-cognitive processes involved in directed attention, applying electroencephalography (EEG) as a neuro-physiological tool to record brain activity while 53 participants were presented with nature audio/video as a stimuli to evoke nature experience. A cognitive task was administered both before and after nature experience. Findings suggest that improved inhibitory control could be the neuro-cognitive sub-process driving the significant improvement of direct attention processes after the nature experience intervention. The third presentation (Audrey Girard) presents insights from a qualitative study that explores the relationship between a regular yoga practice and sustainable lifestyles from a social studies perspective. During semi-structured interviews, 18 regular yoga practitioners were asked to describe their consumption patterns both before and after commencing a regular practice, as well as their perspectives on the meaning of yoga for their lives. Responses to interview questions revealed four discourses on yoga that were named "Pure", "Impure", "Ethereal" and "Performance." Results identified that consumption patterns and vocational choices were affected by the degree to which participants integrated yoga into their life. Little change was observed for "Pragmatic" and "Ethereal" yogis who approach yoga as a primarily physical exercise. Change was more prominent for the "Pure" and the "Ethereal" practitioners who view yoga in holistic and spiritual terms and incorporate mindfulness techniques in their practice. For those groups, consumption behaviors changed towards a lifestyle that can be described as more "responsible" (e.g. vegetarian, a reduction in quantity of goods purchased, greater ethical consideration before purchasing etc.). The final presentation (Carine Gibert) brings the scientific knowledge into practice. The audience will first be introduced to Grounded In Motion, an experiential learning framework, focusing specifically on practice 3: Nature and Reciprocity. This practice has successfully applied contemplative practices to reveal reciprocity and encourage human-nature connectedness in high-school children and first year university students. The second part of this presentation will be an invitation to experience the connection through an inclusive practice. This multi-disciplinary symposium with its diverse perspectives and research methods sheds light on the associations between contemplative practices, human-nature relationships and sustainable lifestyles.

## Room B: Symposium

*Organizer:*

Halvor Eifring, University of Oslo

*Title:*

### **Helpful Hindrances: Spontaneous Thought in Contemplative Practice**

*Moderator:*

Halvor Eifring, University of Oslo

*Speakers:*

Augustine Casiday, University of Glasgow

Guttorm Gundersen, Harvard University

*Abstract:*

Spontaneous thought, popularly known as mind wandering, is a central issue in modern meditation practices. Some seek to avoid it, others to stimulate it, while yet others strive to accept it but still hope to reduce or eliminate its presence. While this ambivalence has its most immediate sources in modern psychology and neuroscience, it can also be traced back to pre-modern contemplative practices, in which spontaneous thought often plays a double role, as a help and as a hindrance. By going back to some of these origins, this symposium will use history and the humanities to complement prevailing ideas on this important aspect of the human mind and of meditative and contemplative practice. The symposium will focus on two ancient monks, both of whom wrote extensively on their contemplative practice, and who saw some types of spontaneous thought as the evil influence of demons, while other types were seen as helpful for the process: the Christian desert father Evagrius Ponticus (345–399 CE), who lived and practiced in various areas around the Mediterranean, and the Chinese meditation master Tīāntái Zhiyǐ (538–597 CE), who is often seen as the founder of the Tīāntái tradition of Buddhism. The first talk, by Augustine Casiday, will be about Evagrius, who was particularly concerned with how logismoi ‘thoughts’ disturbed one’s contemplation and saw such disturbing thoughts as stemming from envious demons. However, not all thoughts are demonic; Evagrius has “learnt, after much observation, to recognize the difference between angelic thoughts, human thoughts, and thoughts that come from demons.” He sometimes links specific types of thought, including demonic thought, to particular brain areas. While many Christian ascetics aimed to empty the self of thoughts to make room for God’s will, Evagrius believed that the mind would always be in constant movement. With a list of eight types of thought, a forerunner to the seven deadly sins, Evagrius strongly influenced posterity, despite himself being declared a heretic and consigned to near-oblivion. Earlier scholarship has barely touched upon the relation between his ideas and the ones found in other contemplative traditions and has rarely seen Evagrius’s thinking on the mind and the brain in light of contemporary science and philosophy. The second talk, by Guttorm Gundersen, will be about Zhiyǐ, who in his meditation manuals seeks to distinguish helpful, problematic and outright dangerous mental states resulting from meditative practice. Like Evagrius, Zhiyǐ is concerned with the demons that pose a threat to the contemplative process. In his system for analyzing mental events, he makes a distinction between events originating from inside and outside of the mind, and explains them as, respectively,



karmic and demonic in nature. Karmic events are the results of earlier action, whether in this life or in former lives, while demonic events are the results of external interference. The idea of demonic interference breaks with the commonly held view about Buddhist metaphysics, in which all events are part of karmic causality. In Zhiyi's system, demonic attacks only appear when the practitioner has reached a certain degree of mental refinement. They can be seen as liminal events marking the practitioner's entry into higher meditative realms. Proper identification is important in guiding the practitioner in selecting meditative methods and knowing what to avoid on the path towards awakening. The third and final talk, by Halvor Eifring, will attempt to see the views of these two monks in comparative perspective and to discuss the relevance of such ancient contemplative traditions for modern meditation practices. It will argue that 1) contemplative traditions relate to a non-phenomenal dimension that is held to transcend and lie at the basis of both body and mind; 2) the widespread negative attitude toward spontaneous thought comes from the notion that it belongs to phenomena and therefore keeps the mind from entering a non-phenomenal dimension; 3) spontaneous thought is of concern to contemplatives not because it is particularly detrimental to the contemplative process, but because it is seen as representing the last hold-out of phenomena on the way toward a non-phenomenal dimension; 4) spontaneous thought comes in different degrees of subtleness and proximity to a non-phenomenal dimension; 5) the effortlessness that comes from accepting spontaneous thought is ultimately seen as a necessary condition for the mind to become more receptive to a non-phenomenal dimension. Evagrius and Zhiyi will be taken as test cases for these assumptions.

## Room C: Symposium

*Organizer:*

Simon Goldberg, University of Wisconsin - Madison

*Title:*

**Expanding access to contemplative practices through digital technology**

*Moderator:*

Richard Davidson, University of Wisconsin-Madison

*Speakers:*

Shufang Sun, Brown University

Simon Goldberg, University of Wisconsin-Madison

Matthew Hirshberg, University of Wisconsin-Madison

*Abstract:*

Despite a large empirical evidence base supporting the efficacy of meditation- and mindfulness-based interventions (MBIs), access to in-person MBIs remains limited. A growing number of randomized controlled trials (RCTs) suggest that digital technology may be a promising approach for decreasing psychological symptoms and increasing well-being. Unlike in-person interventions, mobile health (mHealth) interventions are highly scalable and cost-effective, with enormous potential to increase

access. MBIs may be particularly amenable to delivery through mHealth by focusing on a specific technique (i.e., meditation practice) that is often learned through guided practices. Although limited in number, recent RCTs suggest that mHealth MBIs may decrease psychological symptoms and improve well-being. While promising, delivering MBIs through mHealth and conducting research on mHealth MBIs involve a host of potential complications, limitations, and important caveats. The current symposium will explore these through the results of three recent RCTs conducted in three different populations and contexts. Two of these RCTs occurred within the context of the COVID-19 pandemic, highlighting the potential of mHealth MBIs in the current pandemic. The first study was conducted in China within a sample of university student during the COVID-19 outbreak. Recent research has documented elevated psychiatric symptoms following the COVID-19 outbreak, including among university students. Innovative, mHealth interventions are highly needed to address the mental health challenges during this critical time. In response to this public health emergency, we rapidly developed a tailored, mHealth MBI for university students with psychological distress during massive quarantine in China. University students with elevated depressive and/or anxiety symptoms ( $n = 114$ ) were randomized to an mHealth MBI or a time- and attention-matched mHealth social support group. At baseline, post-intervention (1-month), and follow-up (2-month) assessments, participants completed self-reported measures of primary (depression and anxiety) and secondary (mindfulness and social support) outcomes, and evaluation of satisfaction with treatment. We have completed this RCT recently and will report the feasibility, acceptability, and efficacy at the November meeting. Preliminary analysis found comparable effectiveness of both conditions on depression, mindfulness, and social support, while the MBI outperformed social support on anxiety (i.e., significant time X group effect). This intervention represents an initial effort of mobilizing MBIs in the context of pandemic-induced psychological distress and may be a scalable approach to address the unprecedented psychological challenges during a large-scale infectious disease outbreak. The second study was conducted in the general population prior to COVID-19. It was based on the observation that most mHealth MBI research has primarily focused on mindfulness, only one of many meditative techniques. This study evaluated the efficacy of two versions of a smartphone-based meditation app – the Healthy Minds Program (HMP) – that includes training in mindfulness along with practices designed to cultivate positive relationships (lovingkindness) or insight into the nature of self (insight). A three-arm RCT compared eight weeks of each of two HMP conditions to a waitlist control. Adults (18 years or older) without extensive previous meditation experience were eligible. The primary outcome was psychological distress (depression, anxiety, stress). Secondary outcomes were social connection, empathy, compassion, self-reflection, insight, rumination, defusion, and mindfulness. Measures were completed at pre-test, mid-treatment, and post-test. Longitudinal data were analyzed using intention-to-treat principles with maximum likelihood. A total of 343 participants were randomized and 186 (54.2%) completed mid-treatment and/or post-test assessments. The two HMP conditions did not differ from one another in longitudinal change in any of the outcomes. The active groups showed larger improvements in distress, social connectedness, mindfulness, and measures theoretically linked to insight training ( $d_s = -0.27$  to  $0.40$ ). Results were robust to some missing not at random assumptions. Improvements on several outcomes were associated with days of use. Candidate mediators and moderators of changes in distress were identified. This study provides preliminary evidence of efficacy for the HMP app in reducing distress. Future studies should involve efforts to increase study retention and user engagement. The third study was conducted in collaboration with two local school districts, one urban and the other exurban/rural in the midst of the COVID-19 pandemic. All school district employees were eligible to enroll. We randomly assigned ~700 participants to either a 4-week version of HMP or to wait-list control, and assessed participants each week for the subsequent four-weeks.

This presentation will present pre-post changes on our primary outcome (psychological distress), as well as changes in mindfulness, self-compassion, meaning in life, perseverative thought, cognitive distancing, and social connection. In addition, we will present patterns of app usage and study engagement, and predictors of drop-out.

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Saturday, Nov 7

## Room A: Symposium

*Organizer:*

Tawni Tidwell, University of Wisconsin-Madison, Center for Healthy Minds

*Title:*

### **The Diversity of Tibetan Practices: Varied Paradigms for Human Flourishing**

*Moderator:*

Michael Sheehy, University of Virginia

*Speakers:*

Lobsang Dhondup, Global Institute for Tibetan Medicine

Willa Miller, Natural Dharma Fellowship

Tawni Tidwell, University of Wisconsin-Madison

*Abstract:*

At the intersections of biomedicine, anthropology, religious studies, and Tibetan contemplative and medical knowledge, this symposium convenes scholars and practitioners of contemplation, health care, and biocultural research to discuss paradigms and efficacies of Tibetan-styled practices to enhance human flourishing. The symposium engages practices as the broad and diverse range of applications — historical and contemporary, formal and informal — enacted to transform cognitive, somatic, and affective conditions of being human. The first discussant, a doctor from Tibet, presents Tibetan medical understandings of psychophysiological constitutions that direct both recommended dietary, lifestyle, behavioral, and mental-emotional practices and content parameters for intense contemplative practice. The next discussant, a contemplative teacher in the Tibetan tradition, presents the subtle body (Tib. lus phra ba) as an embodiment layer that bridges body and mind, discussing how tantric Buddhist models emphasize practices that reposition the body as a locus of transformation. The third discussant, a Tibetan medical physician and biocultural anthropologist, introduces “essence extraction” (bjud len), a Tibetan medical and contemplative practice subset that assesses through a biocultural lens, how dietary, behavioral, and medicinal aspects transmogrify bodies biologically and redevelop experiences mental-emotionally. A scholar of Tibetan Buddhism, the final discussant presents complementary remedial and enhancement practices drawn from Tibetan yoga and meditation manuals that detail contemplative interventions for dispelling obstructions (gegs sel) and enhancements (bogs 'don) to treat and sustain diverse health conditions. The panel illuminates heterogeneous practices that demonstrate co-emergent epistemological frameworks that are employed to simultaneously cultivate specific health needs and achieve soteriological aims.

## Room B: Symposium

*Organizer:*

Elisa Kozasa, Hospital Israelita Albert Einstein

*Title:*

### **Bringing a culture of kindness and compassion in organizations**

*Moderator:*

Eve Ekman, Greater Good Science Center - University of California Berkeley

*Speakers:*

Elisa Kozasa, Hospital Israelita Albert Einstein

Tyralynn Frazier, Emory University

Emiliana Simon-Thomas, Greater Good Science Center - University of California Berkeley

*Abstract:*

Evidence increasingly links prosocial characteristics like friendliness, supportiveness, and psychological safety within the culture of organizations to measurable advantages. Among other benefits, a prosocial organizational climate has been tied to: improved member health, well-being, and engagement; increased citizenship behavior and organizational commitment; more productivity and higher quality service; lower rates of absenteeism, interpersonal conflict; fewer quality defects, errors, and turnover; and higher customer satisfaction. Several promising initiatives and programs are providing practical training and techniques for fostering prosocial skills and weaving interpersonal kindness and compassion into the culture of organizations. To promote compassion and kindness in educational settings that often hyper-emphasize traditional subject areas (e.g. mathematics, language, and science) within a competitive, self-focused, achievement orientation, an Emory University team has created the SEE Learning (Social, Emotional and Ethical Learning) Program for developing systems of compassion and an accompanying program for school communities. SEE Learning takes a holistic, systems-thinking approach in content and implementation, and provides resources for educators, students, administrators, parents and community partners. Preliminary feasibility and educator data suggest that the SEE Learning perspective has implications across global contexts of learning for elementary and middle-grade children. To serve healthcare settings, two leading institutions have developed programs to foster prosociality amongst providers and throughout organizational culture: SPRUCE (Supporting PProvider Resilience by Upping Compassion and Empathy) and FoCo (Focus on Consciousness). UCSF's SPRUCE program trains healthcare professionals in emotion science and supports resilience through building self-awareness, coping, and prosocial skills to strengthen interpersonal connection. Following a needs assessment across departments and piloting research in Pediatrics, Internal Medicine, Psychiatry, and Family Community Medicine SPRUCE has been widely embraced and adapted across departments and is now included as part of the core medical education curriculum. The FoCo training developed at Brazil's Hospital Israelita Albert Einstein (HIAE) was implemented and evaluated before and during the COVID-19 pandemic. Participation in FoCo training was associated with increased safety, mutual care, and self-compassion, alongside improvements in perceived stress and psychiatric symptoms, suggesting that the training enhanced overall awareness of

self and situational factors related to the challenges of COVID-19. In another study at HIAE, researchers measured activity in the prefrontal cortex (PFC) using near-infrared spectroscopy (fNIRS) and heart rate variability (HRV) from electrocardiograph to compare responses from participants submitted to a session of a stressful autobiographical reflection and a self-compassion practice. Self-compassion was associated with lower PFC activation and increased HRV, suggesting it may be an effective emotional regulation strategy. Finally, UC Berkeley's Greater Good Science Center created and hosts a massive open online course (MOOC) called Foundations of Happiness at Work, focused on teaching the science and practical strategies for boosting purpose, engagement, resilience, and kindness at work targeting individual, interpersonal, and structural/policy levels. Voluntary self-report survey data from an international sample of course participants indicate that kindness at work is a key driver of key performance indicator metrics like job satisfaction and happiness at work - independent of other commonly sought after qualities like positive emotional experience, job calling, or professional status. Further, moderation analyses suggest that kindness at work plays a compensatory role, sustaining job satisfaction even when other desirable factors are low. Together, these research-backed and empirically-tested initiatives developed to serve a variety of settings yet grounded in the common aim to strengthen organizational kindness represent emerging progress and tangible resources for transforming organizational culture. Through individual, interpersonal, and structural change, these training programs highlight very promising, low-cost, and reliable practical opportunities for cultivating core prosocial skills, developing norms of collaboration and social support, and instituting friendliness conducive policies, i.e. a culture of kindness in organizations.

## Room C: Symposium

*Organizer:*

Joshua Felver, Syracuse University

*Title:*

### **The potential of Self-Compassion to Promote Individual Flourishing in Sexual and Gender Minority Populations**

*Moderator:*

Joshua Felver, Syracuse University

*Speakers:*

Dallas Ducar, Massachusetts General Hospital  
Emily Helminen, Syracuse University  
Abra Vigna, University of Wisconsin – Madison

*Abstract:*

This interdisciplinary symposium will present clinical, empirical, and theoretical perspectives on the potential for self-compassion to promote individual flourishing in sexual and gender minority populations. Sexual and gender minorities (SGM) evidence alarming health disparities relative to heterosexual and cisgender populations, disparities that may stem from the additional stress burden

attributable to their marginalized status (e.g., discriminatory events, internalization of negative societal views). Recent evidence suggests that self-compassion, the extension of compassion toward one's own suffering, may offer unique benefits for this at-risk population. Following the moderator's introductions, the first presenter will review psychosocial stressors and associated psychosocial sequelae for SGM populations, along with current interventions (and lack thereof) that protect against stress and promote individual flourishing. The second presenter will discuss results from recent meta-analytic work summarizing the self-compassion and SGM literature to date, along with a theoretical model that posits mechanisms by which self-compassion may be a protective factor. The third presenter will present research findings exploring how self-compassion may buffer the deleterious effects of discrimination in both SGM and racial minority populations. Outcomes presented will demonstrate for whom and under what conditions self-compassion emerges as a protective factor. Moderated discussion will focus on new directions for innovative clinical applications of self-compassion and future directions for contemplative research. Symposium attendees will learn about the unique health disparities faced by SGM populations, along with specific cutting-edge empirical and theoretical support for the potential of self-compassion to promote individual flourishing by buffering against the unjust societal stressors faced by SGM groups.

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Sunday, Nov 8

## Room A: Symposium

*Organizer:*

Tony King, University of Michigan

*Title:*

### **Mindfulness and Network Connectivity in Default Mode and Executive Networks: Converging Evidence for a Trans-Diagnostic Neural Target**

*Moderator:*

Anthony King, University of Michigan

*Speakers:*

J. David Creswell, Carnegie Mellon University

Tammi Kral, University of Wisconsin

Danella Hafeman, University of Pittsburgh

*Abstract:*

Accumulating evidence indicates mindfulness interventions are effective across a range of diagnoses and populations. One theory behind this transdiagnostic effect is that mindfulness enhances an individual's ability to cope with stress, as well as negative thoughts related to stress, through meta-cognitive forms of emotional regulation. Such stress reduction thus has therapeutic effects across multiple diagnoses (both psychiatric and physical health) that are exacerbated by elevated stress levels and negative thinking. Here, we explore brain mechanisms through which mindfulness may exert these ameliorative effects. Strikingly, one finding has emerged from multiple neuroimaging studies from independent laboratories, across age group and diagnoses: increased resting state functional connectivity (rsFC) between the default mode network (DMN - node posterior cingulate cortex, PCC) and the central executive network (CEN - node dorsolateral prefrontal cortex, DLPFC). This symposium will bring together researchers from four independent US clinical / translational research groups to discuss and interpret together convergent findings that mindfulness practice is associated with increases in DMN-CEN (PCC-DLPFC) cross-network connectivity. One talk presents a study of 35 stressed, unemployed adults randomized to a 3-day intensive residential mindfulness meditation training, or a carefully matched relaxation training. Participants completed a resting-state fMRI scan before and after the training, and provided blood samples pre-intervention and at 4-month follow-up (assayed for circulating IL-6, a biomarker of systemic inflammation). Pre- vs post-training analysis of DMN rsFC (PCC "seed" analysis) found a significant group x time interaction in PCC-DLPFC rsFC. Mindfulness, but not relaxation training, increased PCC rsFC with left DLPFC. Furthermore, increased PCC-DLPFC rsFC following mindfulness training predicted improvements in IL-6 at 4-month follow-up. A second talk presents a study of healthy, meditation-naïve adults randomized to either Mindfulness-Based Stress Reduction (MBSR, N=48), an active comparison (N=47) or waitlist control



group (N=45). Participants completed behavioral testing, resting state fMRI and diffusion tensor imaging (DTI) scans at pre-randomization (T1), post-intervention (T2) and ~6 months follow-up (T3). Consistent with findings in the first talk, this study also found significantly increased DMN-CEN resting connectivity (increased PCC-seed rsFC with DLPFC) following MBSR relative to controls (group [MBSR vs active control] x Time [T2 vs T1] interaction). Although these effects did not persist through T3, days of mindfulness practice (T1 to T3) were significantly associated with increased DMN-CEN resting connectivity. Increased DMN-CEN rsFC in MBSR participants was also associated with increased microstructural integrity of the superior longitudinal fasciculus, and increased self-reported attention.

A third talk presents a study of 31 combat PTSD patients (Iraq and/or Afghanistan veterans) randomized to either a mindfulness-based intervention (MBI), Mindfulness-based Exposure therapy (MBET) or a validated PTSD treatment, Present-Centered Group Therapy (PCGT), with pre- and post-treatment fMRI scans and psychiatric evaluations. PCC-seed analyses found a large and significant increase in PCC rsFC with bi-lateral DLPFC and dorsal anterior cingulate (ACC) following MBET, and also significant group [MBET vs PCGT] by Time [pre- vs post-treatment] spreading interaction in PCC rsFC with left DLPFC and dACC. Post-MBET PCC-DLPFC rsFC correlated with improvement in PTSD symptoms. Similar increases in PCC-DLPFC and PCC-dACC rsFC were observed in a small pilot of N=11 healthy controls following MBSR, suggesting similar effects of mindfulness practice in both PTSD patients and healthy people.

A fourth talk presents a single-arm study of 25 youth (10-14 years old) with familial risk for bipolar disorder (BD), with a first-degree family history of BD, and mood lability (an important precursor to BD onset). All youths received fMRI scans before and after an 8-week MBI, and psychological assessment three months later. The MBI used age-appropriate strategies to promote non-judgmental, present-moment awareness. A significant improvement in mood lability was seen following the MBI. Following MBI the youth also showed increased rsFC between PCC (seed) and left DLPFC, and furthermore, PCC-DLPFC rsFC changes significantly predicted decreased mood lability at follow-up. The presenters will discuss, compare, and further explore these converging findings of mindfulness-training related PCC-DLPFC connectivity changes in several patient and age groups in this symposium, and weigh evidence that it may represent a novel and clinically meaningful neural target of MBIs. The DMN is implicated in rumination, whereas the CEN is associated with cognitive control and volitional attention shifting, suggesting increased DMN-CEN as a plausible mechanism. They will also discuss other sample-specific potential brain mechanisms of mindfulness related to changes in related white matter microstructure and improved attention in healthy adults; decreases in inflammatory markers, especially IL-6, in unemployed adults; improvement in PTSD symptoms in combat veterans, and future decreases in mood lability in at-risk youth.

## Room B: Symposium

*Organizer:*

David Vago, Vanderbilt University

*Title:*

**Perspectives on meta-awareness and attention: Implications for biases of external and internal attention**

*Moderator:*

David Vago, Vanderbilt University

*Speakers:*

Amit Bernstein, University of Haifa

Andrew Olendzski, Lesley University

*Abstract:*

The awareness of subjective experience, or meta-awareness, has been hypothesized to be an important mechanism by which systematic forms of mental training, including mindfulness, improve cognitive performance and health-related outcomes. Yet, there are very few studies that have successfully demonstrated its role in executive monitoring and self-regulatory control over perceptual, attentional, and appraisal processes. This symposium will provide a conceptual overview of meta-awareness from both the Buddhist and cognitive and neurophysiological perspectives to demonstrate its potential role across stages of information processing. Presentations will also provide novel methods and data demonstrating (1) the role of mindfulness-based cognitive therapy (MBCT) in influencing early (C1, P1, N1, P2) and late (P3) event-related potentials (ERPs), reflecting the chronometry of attentional bias for emotional stimuli; (2) meta-awareness of internal (mental) experiences (e.g., thinking) and higher-level internally-directed cognitive processes (e.g., negative repetitive thinking) that have implications for mental health; and (3) highlight gaps, limitations, and recommendations for future work related to targeting meta-awareness through contemplative science research. Interactive discussion amongst the panel participants and audience will be encouraged.

## Room C: Symposium

*Organizer:*

Guanmin Liu, University of Minnesota

*Title:*

### **Roads to Self-Compassion: the Neurobiology and Clinical Applications of Caring for the Self and for Others**

*Moderator:*

Karina Quevedo, University of Minnesota

*Speakers:*

Guanmin Liu, University of Minnesota

Marissa Knox, University of Texas at Austin

Phoebe Long, Dell Children's Medical Center

*Abstract:*

The symposium consists of three talks. The first two are on the neural basis of self-compassion during self-processing in depressed and healthy adolescents, which are highly novel in the field. The third one is on a new developed self-compassion intervention for healthcare professionals, which is highly relevant to the current period of COVID-19. Given the prevalence of adolescent depression and the modest effects of current treatments, research ought to inform development of effective intervention strategies. Self-compassion is inversely associated with depression, and self-compassion interventions have demonstrated promising effects on reducing depression. However, little is known about the neural mechanisms underlying that relationship. Because maladaptive self-processing is a characteristic of depression that contributes to the onset and chronicity of depression, we investigated how self-compassion modulates the neural activity during two typical types of self-processing – self-face recognition and verbal self-appraisals – and how they relate to depression severity in depressed and healthy adolescents, which will be reported in the first two talks. Talk 1 by Dr. Guanmin Liu: Neural correlates of self-compassion during sad self-face recognition in depressed and healthy adolescents. Dr. Guanmin Liu will report their study investigating whether self-compassion was associated with neural responses during sad vs. neutral self-face recognition and exploring their relationship with depression severity in depressed adolescents and healthy controls. During fMRI, 81 depressed youth and 37 healthy controls were instructed to identify whether morphed self or other faces with sad, happy, or neutral expressions resembled their own. We found that self-compassion correlated negatively with activity during sad vs. neutral self-face recognition in the right dorsal anterior cingulate cortex in the total sample, and in the right posterior cingulate cortex/precuneus in healthy controls, respectively. In depressed adolescents, higher self-compassion correlated with lower activity during sad vs. neutral self-face recognition in the right dorsolateral prefrontal cortex (DLPFC). Moreover, higher self-compassion mediated the relationship between lower DLPFC activity and reduced depression severity. Further analysis showed that self-compassion related to higher activity in empathy-related regions (insula, postcentral gyrus and inferior parietal lobule) when viewing sad other's face in healthy controls but not in depressed adolescents. However, none of these regions'

activity was correlated with depression severity. These findings suggest that the relationship between self-compassion, lower activity in the right DLPFC and depression severity is specific to sad self-face recognition. Talk 2 by Dr. Karina Quevedo: Neural correlates of self-compassion during self-appraisals in depressed and healthy adolescents. Dr. Karina Quevedo will report their study investigating whether self-compassion was associated with neural responses during self-appraisals and their relationship with depression severity in depressed adolescents and healthy controls. During fMRI, the same participants as in the first study were instructed to judge whether phrases they heard were descriptive of themselves from four perspectives, i.e. those of self, mother, classmates, and their best friend. We found that self-compassion correlated negatively with activity during self-appraisals in the posterior cingulate cortex (PCC)/precuneus across depressed and healthy adolescents. Moreover, higher self-compassion mediated the relationship between lower PCC/precuneus activity and reduced depression severity. On the other hand, self-compassion correlated with neural activity in regions related to empathy and social cognition (superior temporal gyrus, postcentral gyrus and insula) more positively (or less negatively) in healthy controls than in depressed adolescents. Both studies convergently showed the inverse relationship between self-compassion and PCC/precuneus activity during self-processing in adolescents, and the different relationship between self-compassion and neural activity in regions associated with empathy and social cognition among depressed vs. healthy adolescents. Talk 3 by Dr. Marissa C. Knox and Dr. Phoebe Long Franco: The Self-Compassion for Healthcare Communities Program – content and effectiveness for healthcare professionals. The Self-Compassion for Healthcare Communities (SCHC) program is a 6-hour training shown to enhance well-being and reduce burnout among healthcare professionals (HCPs). We will provide a brief overview of the formation of the program, its content, and three studies to evaluate its effectiveness for the healthcare community. Two quantitative studies demonstrated significant increases in self-compassion and well-being as well as significant reductions in secondary traumatic stress and burnout. One qualitative study provided insight into the contextual factors and processes that supported learning self-compassion in the healthcare environment. Interviews emphasized how social connection within the program facilitated a tangible experience of common humanity and helped participants integrate the practices into their day-to-day work setting. The brief format of the SCHC program provides an accessible option for HCPs seeking support for the emotional difficulties of their role.

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