**Public Lectures**

**Venerable Bhikkhu Anālayo What is Mindfulness? An Early Buddhist Perspective**

Abstract

In this paper I survey selected aspects of the early Buddhist conception of mindfulness. I begin by distinguishing different types of mindfulness and draw out the implications of such distinctions. Next I explore the topic of the relationship between mindfulness and memory in order to determine how far a conceptualization of mindfulness as a quality of the mind related to the present moment is indeed central to the understanding of its functions and significance in early Buddhist texts, and in what way this relates to the ability to remember. Another dimension of the present exploration is the relation of mindfulness to being anchored in the body and how this can serve to maintain continuity of awareness in a daily life situation. The final topic I take up is the use of mindfulness to face pain and disease in the way this is already reflected in the early Buddhist discourses. These texts clearly document that the potential of mindfulness in this respect is not a modern innovation, but has roots in the Buddhist tradition that reach back over more than two millennia.

**Ven. SHI-YAN-HUI The three jewels of Shaolin Culture for Health**

**Ven. SHI-HENG-CHAN Chan Meditation: pedagogical tool for the maintenance of the evolutionary trend of personality**

Abstract:

1) THE MAN IN SEARCH OF HIS OWN IDENTITY
   a. Decontextualisation: the problem plaguing today’s society.
   b. Decentralization of consciousness.
   c. The search for oneself.

2) DIFFERENT DIMENSIONS OF REALITY
   a. Range of sensory perception
   b. See beyond (description of further reality)

3) DAMO (BODHIDHARMA), AND THE DOCTRINE OF " UNIFICATION OF BODY AND MIND ">
   a. From India to Shàolín: Bodhidharma and Bi-Guan-Chán meditation
   b. The elements of the human personality.
   c. 禪拳歸一 Chán-quán-guī-yī: Meditation and Martial arts are one.
   d. Shàolín Chán Yi: the Buddhist Chán Medicine.
   e. The science of Chán meditation: the transubstantiation of the thinking principle.

4) INDIVIDUAL HARMONIC INTEGRATION WITH NATURE (UNIVERSE)
   a. Ongoing and progressive realization of Reality.
   b. Change the Reference System.

5) THE MERCY OF BUDDHA AMITABHA AND BUDDHAHOOD
   a. The architectural design of life according to the evolutionary trend.
   b. “In the world, but not of the world.”
   c. Guānyīn Púsà: the Bodhisattva’s Compassion (maha-karuna): From me to us.
Plenary Keynote

Prof. Paul Gilbert - Evolution, Culture and Compassion-Focused Therapy
Abstract:
This presentation will give a brief overview of an evolutionary approach to compassion highlighting it as a motivational system that evolved from distress signal awareness. Brief discussion will also be given to the link between caring motivation and the evolution of mammalian attachment, consideration of the physiological basis for feeling beneficial effects of being cared for, and the role of affiliative emotion in psychotherapy. The talk will also explore the facilitators and inhibitors (including fears, blocks and resistances) of compassion and how these can be typically rooted in social contexts and cultures. The human mind is highly sensitive to social contexts in terms of phenotypic development. Hence, to create more moral and compassionate behaviour in individuals requires greater attention the social contexts in which we operate.

Dr. Antoine Lutz - Toward a Mechanistic Approach to Mindfulness Meditation Training
Abstract:
Mindfulness meditation practices can be conceptualized as a set of attention-based, regulatory and self-inquiry training regimes cultivated for various ends, including the training of well-being and psychological health. It will be discussed a theoretical model which conceptualizes mindfulness-related states and traits as a well-defined multidimensional phenomenal 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. In addition to presentation of this model, it will be discussed behavioral, physiologic, and neural results related to mindfulness training related to this model.

Dr. Peter Malinowski - Attention in Meditation and Mindfulness Practice
Abstract:
The majority of secular and Buddhist approaches to meditation highlight the importance of cultivating attention. Within Buddhist meditation traditions this is closely linked to so-called Shamata practices, while in modern secular mindfulness-based approaches the importance of purposeful attention to the present moment is emphasised. In both cases refined attention skills can be seen as prerequisite for gaining more insight into mental patterns and processes. In my talk I will consider attention as part of Buddhist meditation practices and outline similarities and differences to its role within secular mindfulness approaches. I will use examples from ancient sources on meditation, from current Buddhist meditation practices and from mindfulness-based programmes to illuminate the central role of attention. This will be connected to psychological and neuroscientific views, which see attention as a set of interconnected and interacting cognitive processes based on distinct neural structures. Furthermore, exciting evidence from studies investigating the functional and neural plasticity of attentional functions will be reviewed, ranging from the very early effects of engaging with meditation – achieved within a few days – to the results of long term meditation practice. Finally, the talk will also touch upon practical implications and the question how meditation practice unfolds using refined attention as a stepping stone.
Dr. Rebecca Crane - Making the Path by Walking it: The Journey of Implementing Mindfulness

Abstract:
Mindfulness training is becoming increasingly accessible. We can begin to imagine the possibility that on a societal level embedding mindfulness practice into everyday life could become as common-sense as brushing teeth, eating breakfast and exercising. This implementation of mindfulness into our mainstream culture and institutions holds great promise. The promise that wisdom and compassion become more readily accessible to us – both individually and collectively.

However there are particular sensitivities related to bringing contemplative practices into the mainstream. How do we meet the implementation challenge of enabling the accessibility whilst supporting the integrity of the approach? How does this emerging field skillfully navigate the tensions inherent in mainstreaming an approach that involves a paradigm shift to mainstream frameworks for understanding the human experience? How do we do the work of ‘mainstreaming’ language and approach whilst also retaining the essential and unique elements of the foundations on which mindfulness-based programmes rest?
The talk will review empirical and practice based work in these areas in relation to developments that support integrity, the work of training teachers, of assessing teacher competence, and of implementing mindfulness-based programmes, and will consider challenges and questions for the field in the future.

Symposia

Symposium 1: Mindfulness in the full course of depression
Chair: Anne Speckens

Sonley & L. Taylor: Effectiveness of mindfulness training in improving resilience in young adults: the MYRIAD project
Oxford Mindfulness Centre Anna Sonley, Laura Taylor
University of Oxford: Brett, D., Crane, C., Kuyken W., Lord, L., Nuthall, E., Wilde, S., Williams J.M.G.
MRC Cognition and Brain Sciences Unit: Dalgleish, T., Dunning, D., Griffiths, K.
University College London: Blakemore, S-J., Foulkes, L., Sakhardande, A.
King’s College London: Byford, S., Viner, R. M.
University of Exeter: Ford, T., Ukoumunne, O.C.
The Pennsylvania State University: Greenberg, M.T.

Abstract:
Introduction: The Mindfulness and Resilience in Adolescence (MYRIAD) project is a seven-year Wellcome Trust Strategic Award investigating whether mindfulness training (MT) improves resilience in young adolescents.
Aims: To investigate whether mindfulness training (MT) has the potential to shift the adolescent population away from psychopathology and towards improved mental health and wellbeing.
Methods: Theme 1 investigates the cognitive and neural mechanisms that underlie the effects of MT in adolescence and compares this to a non-mindfulness, social and emotional learning (SEL) curriculum.
Theme 2 addresses the most effective way to train teachers to deliver a MT curriculum,
comparing the current training routes with more cost- and time-efficient alternatives. Theme 2 also uses qualitative methods to identify how mindfulness has and can be successfully implemented in secondary schools. Theme 3 is a large cluster-randomised controlled trial involving over 5,000 adolescents across the UK to establish whether MT in schools is effective at improving resilience and wellbeing.

**Results:** The results of Theme 1 will determine the social, cognitive and affective impact of MT in typically developing adolescents and high risk sub-groups. The results of Theme 2 will provide evidence for scalability and impact of teacher training and implementation of mindfulness in schools. Theme 3 will provide evidence of the effectiveness of mindfulness training with adolescents in schools.

**Discussion**
Emerging results from the seven-year study will be discussed, with particular focus on best practice of implementation of MT in school settings from the ongoing analysis of Theme 2.

**Carolien Wentink: Discontinuation of antidepressant medication after mindfulness-based cognitive therapy for recurrent depression: a randomised controlled non-inferiority trial**
(Marlies J Huijbers, Jan Spijker, A Rogier T Donders, Digna JF van Schaik, Patricia van Oppen, Henricus G Ruhé, Marc B J Blom, Willem A Nolen, Johan Ormel, Gert Jan van der Wilt, Willem Kuyken, Philip Spinhoven and Anne E M Speckens)

**Abstract:**
Introduction: Mindfulness-based cognitive therapy (MBCT) and maintenance antidepressant medication (mADM) both reduce the risk of relapse in recurrent depression, their combination has been studied in this RCT. The aim was to investigate whether MBCT with discontinuation of mADM is non-inferior to MBCT+mADM.

Method: A multicenter randomised controlled non-inferiority trial. Adults with recurrent depression in remission, using mADM for 6 months or longer (N=249), were randomly allocated to either discontinue (n=128) or continue (n=121) mADM after MBCT. Primary outcome was depressive relapse/recurrence within 15 months. A confidence interval approach with a margin of 25% was used to test non-inferiority. Key secondary outcomes were time to relapse/recurrence and depression severity.

Results: The difference in relapse/recurrence rates exceeded the non-inferiority margin and time to relapse/recurrence was significantly shorter after discontinuation of mADM. However, depression severity did not differ between groups. So, our findings suggest an increased risk of relapse/ recurrence in patients withdrawing from mADM after MBCT.

Discussion: Although the relapse/recurrence rate was higher in the withdrawal group, the severity of depressive symptoms during the 15-month follow-up period was similar in both groups. In addition, this study found no differences between the conditions in terms of number, duration and severity of relapse in those patients who relapsed.

**Rhoda Schuling: Effectiveness of Mindfulness-Based Compassionate Living in Recurrent Depression as a follow-up to MBCT**
(Rhoda Schuling, Marlies J Huijbers, Hiske van Ravesteijn, Anne E M Speckens, Rogier Donders, Willem Kuyken)

**Abstract:**
Introduction: Previous studies have indicated that self-compassion is an important mediator of the effectiveness of Mindfulness Based Cognitive Therapy (MBCT). To further enhance the effectiveness of MBCT, it may be fruitful to offer a mindfulness based follow-up intervention
which focuses specifically on developing (self)compassion. To date, little is known about the effectiveness of such an intervention.

**Aims:** To investigate the effectiveness of Mindfulness Based Compassionate Living (MBCL) in adults with recurrent depression as an after care, follow-up intervention to MBCT.

**Methods:** A randomized controlled trial comparing MBCL in addition to treatment as usual (TAU) with TAU only. Assessments took place at baseline, and six and 12 months follow-up. Primary outcome measure is depressive symptoms according to the BDI-II. Secondary outcome measures include mindfulness and self-compassion skills (FFMQ and SCS), rumination (RRS) and experiential avoidance (AAQ-II).

**Results:** A total of 122 patients have been included (Ni=60, Nc=62). Preliminary results show a significant reduction in depressive symptoms and a significant increase in mindfulness and self-compassion skills. At the conference, we will present full post-treatment results, as well as moderation results.

**Discussion:** Our study is the first randomized controlled trial to examine the effectiveness of developing self-compassion in this population. We are hoping to gain insight into the additional value of compassion training as a follow-up intervention to MBCT for patients with recurrent depression.

**Symposium 2: Mindfulness interventions with cancer, amyotrophic lateral sclerosis and interstitial lung disease**

*Chair: Roberto Ferrari*

**Roberto Ferrari: Mindfulness-based Stress Reduction in Patients with Interstitial Lung Disease: a pilot study**

(Ferrari R., Sgalla G., Cerri S., Ricchieri M. P., Poletti S., Ori M., Garuti M., Montanari G., Luppi F., Petropulacos K., Richeldi L.

**Abstract:**

**Introduction:** Chronic, progressive respiratory symptoms are associated with great psychological and emotional impact in patients suffering from interstitial lung disease (ILD). This single-centre pilot study evaluated for the first time the safety, feasibility and efficacy of a MBSR in a group of patients with ILD. Methods: Prospective observational study set in a university hospital ILD outpatient clinic. Nineteen patients with different ILDs were recruited 2 months prior to the start of the program and followed up for 12 months. Primary outcomes were program safety and feasibility, while secondary outcomes were changes in moods and stress (assessed by Profile Of Mood State and Perceived Stress Scale questionnaires), symptoms (Shortness Of Breath and Cough And Sputum Assessment questionnaires), lung function and exercise tolerance at 12 months. Results: Two patients (10.5%) dropped out in the observational period before the start of the intervention because of non-respiratory causes. All 17 patients who entered the program managed to complete it with an adherence average of eight sessions of nine. No adverse events related to the mindfulness training were reported. Statistically significant improvements in the POMS total score and in several individual items of POMS and PSS were observed throughout the study. However, respiratory questionnaire scores, lung function and exercise tolerance did not show a significant difference over time. Discussion: The MBSR program appears to be safe and feasible in patients with ILD and might affect perceived moods and stress producing a positive and lasting improvement in several stress-related negative domains. These findings pave the way to larger (possibly multicentre), randomized, controlled confirmatory trials.
**Anna Marconi: The experience of meditation for people with Amyotrophic Lateral Sclerosis and their caregivers: A single-blind randomized pre-post clinical trial**


**Abstract:**

Introduction: There is a lack of studies about psychological interventions for people with ALS and their caregivers. We investigated the experience of a meditation training program tailored for ALS needs. Methods: The training protocol was constructed by practitioner experienced Buddhist students and included exercise to promote mindfulness, self-compassion and compassion practices. The study design is a single-blind randomized clinical trial. Subjects from both groups will be fully assessed, with quantitative and qualitative methods, before the randomization (baseline, Time 1), after three months, (post-treatment, Time 2) and after six months (Time 3). Participants from control group had received standard care approach using psychological support in case of need. People with ALS and their caregivers that joined the meditation program for ALS were tested before and after the program and deeply interviewed at the end of the program. Preliminary Results: Transcripts were first analyzed using qualitative content analysis. Both people with ALS and their caregivers reported a positive impact on their psychological well-being, promoted by an increasing in acceptance and non-judgmental attitude. Furthermore, coping strategies seem to improve, with a positive effect on resilience skills. Discussion: The ALS meditation training program seem to be an effective psychological intervention for the promotion of well-being in people with ALS and their caregivers. Further analysis will be performed and finally result will be showed during the conference.

**Irene Guglieri: Mindfulness Based Cognitive Therapy for Cancer: a pilot study to determine effectiveness and feasibility in Italian cancer patients**

**Abstract:**

Introduction: Mindfulness-based interventions have become widespread in psychosocial cancer care over recent years, in the light of a growing body of scientific evidence. Most of these studies have been conducted on breast cancer patients and only a few on advanced cancer patients. Given the peculiarity of the cancer patient population some of the interventions carried out in the studies differed from standardized MBSR programs. Recently a program specifically adapted to meet the needs of cancer patients has been designed and developed which goes by the name of MBCT for Cancer. Method: This pilot study is a non-randomized repeated measures trial. Twelve cancer patients who are receiving different cancer treatments were recruited to take part in the MBCT-Ca program, six of them are at an advanced stage. Outcome of mood disorders, QoL, coping strategies, self-compassion and post-traumatic growth are assessed one month before the beginning (T0), immediately prior to the first session of the program (T1) and at the end of it (T2). A self-reported form is used at T2, including questions about the acceptability, difficulties and benefits of specific components of the program. Results: The MBCT-Ca program will be delivered in March-April at IOV. Discussion: Several aspects of this pilot study are innovative. The sample is mixed over various sites and stages of cancer with a strong component of ACP. Conclusions: It is expected that this study will provide some degree of evidence as to the program’s efficacy as well as key information regarding the feasibility of a larger randomized study.
Symposium 3: Mindfulness and work  
Chair: A. Giannandrea

Timothy Sahaja Davis: Exploring the potential of mindfulness as a tool to develop skills and qualities for effective consultation

Abstract:
Introduction: Consultation undertaken by health, education and business professionals is complex, demanding activity that requires a range of social and cognitive skills. The purpose of this paper is to address the question ‘What published literature is there to support the application of mindfulness to consultation?’ and in response to this question provide the reader with the breadth of literature surrounding this subject. This paper goes on to propose and revise a model of mindfulness conceived specifically for the context of consultation.

Method: These aims were achieved through a search of literature identifying specific skills that have been found to be both, important for effective consultation and related fields, and associated with mindfulness. Mindfulness Based Consultation (MBC) was subsequently developed and modified through a process of applying interpretative phenomenological analysis to group interviews with participants on the course.

Results: This paper concludes that through the development of mindfulness by professional consultants specific cognitive, attitudinal and social qualities may be cultivated. A model for MBC is suggested which was found to be effective when applied to the professional contexts of participants attending an 8 week course.

Ilios Kotsou: Enhancing well-being at work: The mediating role of psychological flexibility
(Ilios Kotsou, Rebecca Shankland, Lionel Strub, Boissicat Natacha, Yves La Bihan, Dominique Steiler)

Abstract:
Introduction: Up to now, few studies have been carried out on Mindfulness Based Interventions (MBIs) at work compared to a control group using quantitative methods. Following a first study carried out in this field, we aimed at better understanding the positive effects at work. The aim of the present study was to assess the mediating role of psychological flexibility on well-being, perceived stress and cognitive appraisals of difficulties at work.

Methods: Participants (31 Mindfulness group and 27 controls) were recruited from three large French companies. They completed self-report questionnaires pre and post-intervention. Dependent variables were: Perceived Stress Scale, Warwick-Edinburgh Mental Well-Being Scale, and cognitive appraisals of difficulties (perceived as threats or as challenges, Cognitive Appraisal scale). The mediating variable used was Psychological Flexibility (Decentering scale).

Results: Relative to the control group, Mindfulness-trained participants experienced increased subjective and psychological well-being while they reduced their tendency to perceive difficulties as threats. No significant difference appeared on perceived stress scores (reduction in both groups), and on perception of difficulties as a challenges. As hypothesized, increased well-being was mediated by increased psychological flexibility.

Discussion: Results underline the benefits of MBIs in workplace contexts in terms of well-being, while highlighting mechanisms that potentially explain this effect. More studies are needed in the field of psychological flexibility in order to better measure its various facets and their interactions in relation to well-being at work.
Sari Cinamon: Mindfulness for Recovery: The Public Sector and Environment under Crisis in Israel
(Sari Cinamon, Itai Beeri)
Abstract:
Mindfulness is a mental exercise derived from Buddhist thought that is gaining increasing currency in the West. Mindfulness training has been shown to improve practitioners’ health and well-being, for instance by reducing the symptoms of depression and anxiety disorders, lowering blood pressure, and alleviating stress and pain.
The present research examines whether applying mindfulness training among staff in the public sector – in particular in health and education – can improve organizational effectiveness and performance. Based on the new public service approach (NPS), turnaround management strategy (TMS) and empathy-altruism theory, this research examines the effect of a mindfulness intervention as a bottom-up process leading from mindful leaders and employees, through mindful organizations, to a mindful environment.
We integrate research in public administration and neuroscience by using fMRI (functional magnetic resonance imaging) to examine whether and how mindfulness training may affect brain structures and functions, along with behavior and attitudes, in public actors at times of crisis – in this case, managers and employees in two public-sector organizations in Israel: a public hospital and a public school. At a practical level, the research will lead to recommendations for implementing the emerging field of mindfulness in public administration and policy.

Marie Holm - Mindfulness and the Dualities of Humanistic Management
Abstract:
Contemporary analysis of work have noted a resurgence of humanistic and spiritual aspects of work, such as authenticity (Ekman, 2012; Fleming, 2009), aesthetic values (Warhurst & Nickson, 2007), self-expression and fun at work (Jenkins & Delbridge, 2013). These analyses all point to an increased emphasis on ‘immaterial’ aspects of labor (Lazzarato; Hardt & Negri, 2000), and all broach the question of the relation of such labor to managerial practice and economic motives of productivity.
While most of these studies focus on individual expression and consumption, they often overlook the rapid resurgence of spiritual practices within the workplace, notably, the ‘mindfulness’ movement. Drawing close to perspectives on enchantment, mindfulness both emphasizes transcendental notions of awareness, meditation and spirituality while ‘secularizing’ these into biological, behavioral and neuropsychological processes (Williams & Kabat-Zinn, 2013; Stanley, 2012). The resultingly diverse interpretations (Williams & Kabat-Zinn, 2013) create a field in which alternative and camps can struggle over the meanings and applications of the term.
The current research project explores how mindfulness programs become sites for contested meanings, over what constitutes mindfulness, how it is enacted, and what are its effects. In an empirical analysis of a mindfulness consulting firm, we track the process by which the concept is prepared for ‘engagement’ with corporate stakeholders, and how it is implemented. We discuss the results in terms of how the mindfulness concept both encapsulates and moderates various dualities that people and organizations struggle with, and provides a forum in which these dualities can be worked out.
Symposium 4: Mindfulness-based interventions 1
Chair: Federica Mauro

Fei-Hsiu Hsiao: The Long-Term Effects of Mindfulness Added to Family Resilience-oriented Couples Support Group on Psychological Well-Being and Cortisol Responses in Breast Cancer Survivors and their Partners
(Fei-Hsiu Hsiao, Jen-Ai Road)

Abstract:
The practice of mindfulness has not been well-developed for cancer survivors and their partners, and its effects on relational well-being and cortisol responses are unknown. This 14-month study aimed to examine the effects of the mindfulness-incorporated couple support group on psychological individual and relational well-being, and cortisol stress responses in breast cancer survivors and their partners. The participants were randomized into two groups: 21 couples in couples support group (CSG), and 19 couples in individual supportive program (ISP). Outcome measures for both survivors and their partners included Medical Outcomes Study Sleeping scale (MOS), Beck Depression scale (BDI-II), State-Trait Anxiety Inventory (STAI), Meaning of Life Questionnaire (MLQ), Short-form 12 Health-related Quality of Life (SF-12 QOL), Experiences in close relationships-revision scale (ECR-R), and salivary cortisol. Among breast cancer survivors, the most significant effects of CSG were greater reductions of anxiety ECR-R compared with ISP. For partners, the decreased levels of BDI-II, anxiety and avoidant ECR-R, and the increased levels of search and presence aspects of MLQ, physical and mental QOL were identified in CSG compared with ISP. Moreover, CSG contributed to reduced cortisol levels at time of awakening and at 12:00 for both breast cancer survivors and their partners, cortisol levels at 30 minutes after awakening for survivors, and night cortisol levels at 21:00 for partners. In conclusion, mindfulness practices consisting of individual and interactive breathings and meditation as well as improved relational well-being and cortisol stress responses could be applied for the cancer survivors and their partners.

Bruno Cayoun: Unlearning chronic pain with equanimity: Immediate and lasting pain reduction following a self-implemented mindfulness-based exposure task
(Bruno A. Cayoun, Akeesha Simmons, Alice Shires)

Abstract:
Introduction: Recent neurological research shows that about 80% of people who transit from acute to chronic pain produce neuroplasticity linking pain pathways to learning areas of the brain, showing evidence that chronic pain is largely learned. This pilot study investigated the efficacy of a short self-guided mindfulness-based interoceptive exposure in extinguishing learned aversive responses to pain sensations.
Method: Fifteen (8 males, 7 females) diagnosed chronic pain patients, aged 26 to 73 (M = 47.33), individually underwent two 30-second exposures to pain sensations (pre-treatment) and were asked to self-implement this method aided by printed instructions each time their pain reached high intensity, for the following two weeks (post-treatment). Following post-treatment interview, participants were asked to continue practising the method on their own for another two months (follow-up).
Results: The results show large reductions in pain-related anxiety from pre- to post-treatment (p=.001; d=0.96) and further reduction at 2-month follow-up (p=.03; d=0.42), and large decrease in pain severity from pre- to post-treatment (p=.01; d=0.86), which was maintained at 2-month follow-up. Averaged dynamic data also show large reductions in pain intensity after each 30-second exposure (p&lt;.001; d=1.37). Large reduction in emotional distress
(depression, anxiety and stress) was also observed from pre-treatment to 2-month follow-up (p<.001; d=0.81). Participants rated the task as highly acceptable and some reduced their use of analgesic medication.

**Discussion:** These early results show the possible benefits of this method as a costless adjunct to traditional treatments of chronic pain and has the potential to change unhelpful habits and moderate the mechanism of brain reorganisation in pain chronification.

**Alice Shires: Comparison of a mindfulness based exposure task with a distraction task in the reduction of induced pain with an additional moderator of attentional bias.**
(Alice Shires, Louise Sharpe)

**Abstract:**
There is considerable evidence for the efficacy of mindfulness based approaches in the management of pain, which has led researchers to investigate brief interventions that might have clinical applications in terms of prevention and managing acute pain. However, the evidence regarding brief mindfulness based approaches is mixed. In this study, we aimed to investigate the relative efficacy of a particular form of mindfulness developed and commonly used as part of the Mindfulness integrated cognitive behaviour therapy program (MiCBT) (Cayoun, 2011), that targets somatosensory pathways associated with feeling body sensations while deactivating emotions and judgments during experiences of pain or other aversive body sensations; which is akin to a mindfulness based exposure technique. The aim of this study was twofold: (1) to determine whether MiCBT was more effective at reducing acute experimental pain, using the cold pressor task, than distraction or no intervention; and (2) to determine whether the degree to which individuals focus on pain-related stimuli was a moderator of treatment outcome. That is, we expected that those whose natural disposition was to attend to pain-related information would benefit more from mindfulness. This study will have significant implications for the tailoring of psychological treatments for patients with clinical pain syndromes. We recruited 100 participants and will present the results of the study.

**Simone Cheli: Metacognitive Awareness in Cancer Setting: A Methodological Offering**
(Simone Cheli, Lucia Caligiani)

**Abstract:**
Introduction: The experience of a cancer patient usually walks far from the psychodiagnostic criteria. The most of the studies report a constellation of depressive, anxious, and post-traumatic symptoms. Therefore, transdiagnostic approaches such as Mindfulness-Based Cognitive-Behavioral Therapy (MBCT) and Metacognitive Therapy (MCT) are receiving great attention. On the one hand, MBCT is very effective in dealing with the chronic stress experienced by patients. On the other hand, MCT offers a very easy-to-apply approach in assessing personal beliefs behind the stress itself. From a post-rationalist and non-dualistic viewpoint, the experience of the patient can be understood as a system of personal meanings that channelizes his/her own choices. Such an assumption refers to a theory of personality as a self-organizing system that faces epistemological constraints and possibilities.

Methods: In the last few years, we have developed a model called Metacognitive Awareness in Cancer Setting (MACS). The MACS model includes two types of interventions (i.e. individual and group therapy) and four main approaches: (I) a metacognitive assessment about beliefs; (II) an educational training about stress and cancer; (III) a narrative exposure technique about the illness story; (IV) a mindfulness training through standard exercises. We pilot-tested (open trial with pre- and post-treatment assessment) the individual (n=47) and the group (n=26) therapy on a sample of breast cancer women.
Results: Results showed that depressive, anxious and post-traumatic symptoms reduced significantly. No differences were found in Quality of Life.

Discussion: MACS has shown promising results. Further studies are needed in order to verify its effectiveness and reliability.

Symposium 5: Mindfulness-based interventions 2
Chair: Carrie McPherson

Richard Siegert: Critical Review of Mindfulness Interventions for Neurological Conditions
(Richard J Siegert, Vicki Rowland, Alice Theadom)
Abstract:
Introduction: Considerable evidence exists for the effectiveness of mindfulness interventions (MI) for diverse health conditions. However little guidance exists about how they might be adapted for people with neurological conditions. We addressed these questions: Which neurological conditions have MI been studied with? How were MI modified? Were self-report mindfulness measures used? Were adverse effects reported?

Method: We searched PSYCInfo, MEDLINE, Web of Science, Scopus, AMED, Cochrane, EBSCOHealth, Science Direct and ProQuest. Search terms for conditions were: "Brain Inj*", "Brain damage", "sclerosis", "Head inj*'", "head trauma", "stroke", "cerebrovascular", "neurolog**", "haemorrhag**" and for MI: "mindful*", "meditat*", "acceptance and commitment" and "dialectical". We only included MI studies on adults with a neurological condition.

Results: We identified 2715 articles, removed duplicates, screened 1823 titles/abstracts and read 84 articles resulting in 27 articles included in this review. Conditions included: Traumatic Brain Injury (8), Multiple Sclerosis (8) Stroke/SAH (4), Acquired Brain Injury (4) and ‘other’ (3). The most frequent interventions were MBSR (14), MBCT (4) ACT (4), mindful movement (2), online (1) and ‘other’ (2). Adaptations included: more sessions, shorter sessions, briefer meditations, smaller groups, large/simplified text, handouts and repetition. Only 4 studies mentioned adverse effects. Frequently used mindfulness measures were the MAAS (3) and the FFMQ (3), but 18 studies used none.

Discussion: MI appear suitable for people with neurological conditions with minor modifications. Research would be improved if studies used a mindfulness self-report measure to determine individual differences in acquiring mindfulness. While adverse effects appear infrequent this could reflect a failure to monitor/report them.

Angela Rowe: Attachment Security and Self-compassion Priming Increase the Likelihood that First-time Engagers in Mindfulness Meditation will Continue with Mindfulness Training
(Angela C Rowe, Laura Shepstone, Katherine B Carnelley, Kate Cavanagh, Abigail Millings)
Abstract:
Mindfulness practice has many mental and physical health benefits but can be perceived as ‘difficult’ by some individuals. This perception can discourage compliance with mindfulness meditation training programs. The present research examined whether the activation of thoughts and feelings related to attachment security and self-compassion (through semantic priming) prior to a mindfulness meditation session might influence willingness to engage in future mindfulness training. We expected both of these primes to positively influence participants’ willingness to continue with mindfulness training. We primed 117 meditation-naïve individuals (84 female; mean age of 22.3 years, SD = 4.83) with either a self-compassion, attachment security or a neutral control prime prior to an introductory mindfulness exercise
and measured their post-session willingness to engage in further training. Both experimental primes resulted in higher willingness to engage in further mindfulness training relative to the control condition. The self-compassion prime did so indirectly by increasing state mindfulness, while the attachment security prime had a direct effect. This study supports theoretical links between self-compassion and mindfulness and reveals a causal role for these factors in promoting willingness to engage in mindfulness training. Our findings have implications for improving compliance with mindfulness intervention programs.

S. Grocholewska-Mullins: A mindfulness and compassion-based education programme: A life-span approach
(Sacha Grocholewska-Mullins, Erika Rombollotto, Monica Seleghin, Francesca Doria, Vittorio Bacciolo, Milena Pin, Luisa Balestra, Isabella Palumbo)
This paper will introduce a mindfulness and compassion based education programme that aims to radically shift perspective on Mindfulness–based programmes crafted to span eight weeks. The authors argue that if the neural landscape caused by meditation is dependent on repeated training during the life span (Lutz, A., Greischar, L.L., Rawlings, N.B., Ricard, M., Davidson, R.J., 2004) for sustained flourishing, then the three auxiliary Rs, remembering, reasoning and responsibility skills, 3aRs (MovingUniverse, 2009) programme, with its four core themes of brain, body speech and mind, propose setting down a life path for a society ready to embrace change (Varela et al, 1993), an educational society (Delors, J. 2013) striving for greater democracy and citizenship. Given the Italian Ministry for Instruction University and Research (MIUR) for the Veneto Region, approved the 3aRs educator training programme for teacher accreditation (MIUR 2015/2016), the authors believe it is auspicious to describe the structure and content of the protocol that has been taught to educators, parents, students, to hospital staff and the public in Italy since 2008 and as part of the United Nations Leadership Training Programme since 2015, as a way of encouraging research collaborations from Universities internationally that will verify the programme’s efficacy in promoting human flourishing throughout the lifespan.

Maja Johannsen: Do attachment anxiety and -avoidance predict levels of mindfulness and self-compassion in women treated for breast cancer? An exploratory analysis
(Johannsen M, O’Connor M, Jensen AB, Zachariae R)
Abstract:
Background: Levels of mindfulness and self-compassion have been associated with increased well-being and psychological functioning. Insecurely attached individuals are suggested to report lower levels of mindfulness and self-compassion due to reduced self-awareness and increased distress. In the present study, we explored attachment anxiety and –avoidance as possible predictors of mindfulness and self-compassion.
Method: A total of 130 women treated for breast cancer with persistent pain were recruited to an intervention study from the Department of Oncology, Aarhus University Hospital. They filled out a questionnaire package at baseline including adult attachment (the Short Form Experiences in Close Relationships Revised, SF-ECR- R), mindfulness (the Five facet Mindfulness Questionnaire, FFMQ), self-compassion (the Short Form Self-Compassion Scale, SF-SCS), pain (the Short Form McGill Pain Questionnaire 2, SF-MPQ- 2), and psychological symptoms (the Hospital Anxiety and Depression Scale, HADS). Statistical analyses were multiple linear regressions.
Results: Analyses controlling for age, pain, and psychological symptoms, showed that the model explained 35% of the variance of FFMQ totalscore (p&lt;0.001). Attachment avoidance (β=-0.35, p=0.001) and psychological symptoms (β=-0.26, p=0.02) were independent
statistically significant negative predictors of FFMQ. For SF-SCS, the model explained 37% (p<0.001) of the variance with attachment anxiety (β=-0.35, p=0.001) and psychological symptoms (β=-0.38, p=0.02) as independent statistically significant negative predictors of SF-SCS.

Discussion: The results showed that attachment avoidance, but not -anxiety, were associated with lower levels of mindfulness, while attachment anxiety, but not –avoidance, were associated with lower levels of self-compassion. Future studies of mindfulness and self-compassion should explore the possible moderating effects of attachment orientation.

Symposium 6: Mindfulness, Grief and Trauma
Chair: Stefano Poletti

Leslie Palumbo: Mindfulness and Grief: Mining the Treasure Inherent in Great Loss
Abstract:
Introduction: When grief arrives at our door, mindfulness practice helps us not only to endure it, but to transcend and even expand our very best human qualities as a result of it. Author of The Wisdom of Grief and a psychotherapist in private practice for 20 years, the presenter shares her expertise on implementing mindfulness practice during each phase of grief in order to help people move fluidly through this challenging but universal human experience.

Method: The author describes the particular mindfulness practices she has applied to distinct aspects of grief that shift the process from one solely of misery to one of grace and wisdom. Specific contemplations are outlined as antidotes to common grieving stumbling blocks such as anger, guilt, isolation, resistance, and depression. Detachment in the griefwork process of identity reformation is discussed.

Results: Qualitative results indicate that mindfulness practices during mourning are of great benefit in assimilating loss. Specific anecdotal outcomes demonstrating clients’ increased sense of inner strength; improved self-perception; increased forgiveness in fraught relationships; and enhanced connection with life elements beyond the self are explained.

Discussion: Mindfulness applied to the grieving process has huge implications for prevention not only in mental health care but in each one of us, releasing us from the residual guilt, anger, and unresolved sorrow so common to grief and loss and thereby expanding our empathy, compassion, forgiveness, and mercy. Through bringing greater meaning and context to the process, it assists us to turn our traumas into our greatest source of inner wealth. Mindfulness in grief provides a map, gently guiding us toward a place beyond fear, where an immense treasure lies, waiting to be unearthed.

Luigi Zerbinati - Panta Rhei: Mindfulness-based weekend retreats for people bereaved by suicide
(Scocco P., Zerbinati L., Totaro S., Ferrari A.)
Abstract:
Introduction: Family members and friends of suicide victims (suicide survivors) are at higher risk of developing mental disorders and suicidal behavior. The physiological process of grief leads to a normal acceptance of the loss and to a change in the way the person thinks about the deceased. In suicide survivors accepting the death of a close one is difficult. Mindful practices are proved to promote acceptance, forgiveness and compassion, reducing mental rumination. This study investigated how mindfulness based week end retreats (PantaRhei) could influence mindfulness qualities, acceptance and mood states in suicide survivors.

Methods: Assessment took place between 4-6 day before and after the retreat. Participants
(n=56) were asked to complete the following questionnaires: Five Facet Mindfulness Questionnaire, Profile of Mood States and Self Compassion Scale. During the retreat, participants are actively exposed to standard practices of mindfulness based interventions (such as MBSR and MBCT) and they included sitting meditation (mindfulness of breath, sounds and thoughts), body scan, mindful yoga and mindful walking. These experience also included guided meditations and practices oriented towards guilt, shame, grief and forgiveness, adapted from those described by Frank Ostaseski.

**Dario Doshin Girolami - When Blossom falls: A Right Mindfulness course for grieving parents who lost their children**

**Abstract:**

Grief arising from the loss of a child is a natural emotion. The normal reaction to grief can manifests itself at physical, emotional, cognitive or behavioral level. But if treated appropriately grief can trigger deep insights and take to an emotional and existential maturation.

Has been proved that the practice of Right Mindfulness, deriving from the Buddhist Tradition, can be of extraordinary help in coping with grief from the loss of a child. The application of mediation as a technique to resolve such a grief comes directly from Buddha (De Silva 1984). Based on the five emotional states as a response to loss and death delineated by Elizabeth Kubler-Ross, Zen tradition elaborated a teaching where the cultivation of tranquility leads toward acceptance of what is happening, instead toward denial, patience calms anger, awareness dispels depression and grief, not attachment helps in the process of letting go.

Dario Doshin Girolami conducted a meditation course for 12 grieving parents – 6 couples – for a year based on these teachings. The presentation will deal with this experience and will address how through insight mental practices parents learned to examine and transform grief that governed their lives. Thanks to the regular practice of meditation, parents became less depressed and accepted the inevitability of birth and death.

Remarkably, after a year of practice, many participants shifted from Mindfulness practice to Zen practice and developed a serious interest in Dharma.

**Mariette van de Merwe - Psycho-education aimed at mindfulness to manage the dialectic nature of traumatic memories**

**Abstract:**

Introduction: After trauma exposure traumatic memories have a dialectic nature of re-experience versus denial or repression. It can be beneficial to approach rather than avoid traumatic memories. Traumatic memories can be overwhelming and prone to sensory triggers if not managed consciously. An aim of post-trauma intervention is to shift Situationally Accessible Memories (SAM’s) which is typically grounded implicitly in the amygdala to the hippocampus where it is Verbally Accessible (VAM’s). This paper explores the role of psycho-education to enhance mindfulness in managing the dialectic nature of trauma with reference to eliciting verbal trauma narratives and applying sensory trigger-mapping.

Method: This paper is based on the presenter’s practical experience and D.Phil in Social Work which utilized intervention research to develop a social work practice model for young witnesses of extreme life events.

Results: Traumatic memories are typically fragmented and not a coherent whole. Psycho-education can enhance awareness which can lead to a mindful approach to such memories. This can enable trauma-affected persons to gain authority over the process of remembering.

Discussion: Mindfulness can encourage trauma-affected persons to turn towards their memories; to observe memories as they emerge and also to affirm that trauma memories as
Such are not dangerous. Mindfulness can aid the process of placing traumatic memories in the appropriate place in the person’s life story; namely in the past where it belongs. In this sense, mindfulness can help the person to work with the there and then in the here and now.

**Symposium 7: Mindfulness from the perspective of dialectical behavior therapy**

*Chair: Cesare Maffei*

**Marco Cavicchioli - DBT Skills Training in Alcohol Dependence Treatment: Mindfulness as a Mediator of Therapeutic Change**

(Marco Cavicchioli, Mariagrazia Movalli, Ilaria Lualdi, Cesare Maffei)

Abstract:

Introduction: Dialectical Behavior Therapy (DBT) Skills Training (ST) aims to teach skills to reduce dysfunctional behavior related to emotion dysregulation and facilitate the adoption of new behavioral, emotional, and thinking patterns. Mindfulness Skills (MS) are central to DBT: they are the first skills taught and the other skills (e.g. emotion regulation) constitute a natural progression from MS. This study aims to evaluate the mediating role of MS learning in explaining therapeutic change during 3 months DBT-ST program, used to treat alcohol-dependent patients.

Method: We assessed alcohol addiction severity (SPQ alcohol subscale) at the beginning (t0) and the end of intervention (t2). Furthermore, we evaluated emotion dysregulation (ED) (DERS) and mindfulness disposition (MD) (MAAS) at t0, after 1 month (t1) and at t2. We proposed repeated-measures ANCOVA and mediation analysis. The independent variable and mediator introduced in equation were DERS and MAAS scores reached at t1. Results: 128 subjects completed the intervention. Controlling for baseline level, alcohol addiction severity moderately improved (d=,17) during the treatment. On the contrary, ED and MD largely improved during the first month of program (respectively d=,95; d= 1,97) and over 3 months (respectively d=,96; d= 2,02) of intervention. MD levels reached at t1 fully mediated (z=2.53; p < .05; bootstrapped 95% CI: .01 - .10) the relationship between ED levels at t1 and alcohol addiction severity at t2. Discussion: This study supports the use of DBT-ST to treat alcohol-dependence. Further, we demonstrated the central role of MS learning in therapeutic change.

**Nicolo Gaj - Mindfulness mediates the relation between emotional regulation and behavioral skills use in a clinical sample**

(Nicolò Gaj, Emanuela Roder, Raffaele Visintini, Cesare Maffei)

Abstract:

Introduction: Emotional problems figure prominently in many psychopathological conditions. Difficulties in emotion regulation are associated with problems concerning attentional deployment and, consequently, with dysfunctional ways of addressing problematic situations. Scientific research proposed several action mechanisms of mindfulness, including the decreasing of the burden of emotional dysregulation, the increasing of attention regulation and emotional awareness. All these plausible considerations still need more confirmations: the aim of the present study is to explore the association among those variables in a clinical sample, testing the mediating effect of mindfulness skills on the relation between emotional vulnerability and functional behavioral strategies.

Method: The sample was comprised of 130 adult clinical subjects (72% females) asking for a personality assessment. The mean age was 30 years. Emotion dysregulation, mindfulness and behavioral strategies were assessed respectively with the Difficulties in Emotion Regulation Scale (DERS), the Five Facet Mindfulness Questionnaire (FFMQ), and the Dialectical Behavior
Therapy Ways of Coping Checklist (DBT-WCCL).
Results: Regression analysis showed that dysfunctional coping styles were predicted by DERS total score ($p < .001$). Moreover, significant associations between DBT skills use, DERS total score, and FFMQ Describe were found ($ps < .005$). We then tested a mediation model with FFMQ Describe as mediator variable on the relation between DERS total score and DBT skills use: a partial mediation model was confirmed (for all paths, $ps < .001$).
Discussion: Mindfulness skills seemed to attenuate the negative effect of emotional dysregulation on the use of effective coping strategies. Relevance for clinical practice and research is discussed.

Stefania d’Angerio - Mindfulness and DBT: A systematic review of processes and efficacy
(Stefania d’Angerio, Elena Bilotta, Donatella Fiore, Antonio Semerari)
Abstract:
Introduction: Mindfulness-based treatments have recently become popular in the field of cognitive research and therapy. Specific interventions tailored to specific psychological problems are being developed. Despite its large application in psychological treatment, a satisfactory account of the main processes explaining mindfulness efficacy is lacking.
Method: We conducted a systematic review of the literature using Psychinfo and Psycharticles concerning change factors activated by mindfulness interventions and also mindfulness and Dialectical Behavioral Therapy (DBT).
Results: Many studies described a series of potential factors that could function as mediators of change and could represent the main processes involved driving the efficacy of mindfulness-based interventions. In particular, research has focused mainly on the ability to regulate emotions, self-compassion, executive functions, decentralization, increased attention and working memory, and also brain functioning modifications. On the one hand, a handful of studies reported that mindfulness is effective in treating depression only for patients who experienced at least three major depression episodes. In other instances it has been found that cognitive behavioral therapy (CBT) is more effective than mindfulness based programs in treating anxiety, while other studies found only weak differences between CBT and mindfulness based programs in treating social phobia. On the other hand, there is evidence showing that mindfulness in DBT increases abilities to cope with emotions.
Discussion: Inadequacies in the research designs of such studies might explain the inconsistencies; future research should aim at overcoming such difficulties.

Symposium 8: Mindfulness in organizational life: so fragile, so misunderstood, so needed
Chair: Fabio Giommi

Fabio Giommi - Conditions and requirements to bring mindfulness into organizational life without impairing its integrity: cues from field experience
Abstract:
During the last decade there has been an surge of interest about the potential benefit of mindful individuals within organizational life. There is a vivid interest of the business world and of the consultancy communities about the potential of bringing mindfulness into companies. This is easy to say, much less to do. And the risk is that this opportunity promote, instead, lots of wishful thinking, over-simplistic ideas about mindfulness and leadership, and eventually to promote illusions. On the one side, the need and the potential of mindfulness seems evident; on the other side, it is not rare that its applications remain limited in depth or,
worse, that its integrity is spoiled and therefore its potential wasted.
This presentation is aimed to show how, in order to be successful, a mix of (not so common) requirements and conditions is needed, as prerequisites. However, when these conditions are met, the results are often not only really remarkable and sustained but also beautiful: organizational life can be experienced as a more fully human life.

Iacopo Camozzo Caneve - Mindfulness within a company: the Borsa Italiana (Italian Stock Exchange) case
(Iacopo Camozzo Caneve, Fabio Giommi, Elena Zucchi)
Abstract:
Opportunities and constraints related to Mindfulness Based interventions within work organizations are here discussed. As support, a pilot experience made with Randstad HR Solutions to the Italian Stock Exchange companies is presented; the project, held within Women Inspired Network (WIN) context, was launched in 2015 with main goal, among other objectives, to enhance female talent in the Group.
Specific objectives, applied methodologies and selected organizational methods of the interventions are presented. Particular focus is placed on: interventions construction process, issues raised in relation to the involved population, reflections about observed effects. As support of above analysis and aspects, some qualitative data, collected as output of experienced interventions (in form of written narratives and semi-structured interviews) will be discussed, to provide hints and stimulate thoughts on Mindfulness application within a Company, compared to the original and standard MBSR protocol approach and module.

Federica Muzzi - Mindfulness training within a company: an HR perspective
Abstract:
The presentation will start with a brief introduction of Randstad HR Solutions, Global Hr services provider for companies. She will present training trends detected by the RHRS observatory, daily dealing with Italian companies and focusing especially on their latest emerging needs. In order to fulfill these requests, Randstad Hr Solutions designs training projects to empower and develop the individual potential, focusing particularly on skills such as resilience, stress management, emotional intelligence. And this is the reason why Mindfulness is one of the main topic RHRS is working on and deeply analysing: organisations’ expectations, needs and doubts - related to the original MBSR protocol and the application of the concept on business and management - will be discussed. The proposal of Randstad is the customization of a process of "Mindfulness based stress management", based on business needs and rhythms, designed and conducted by Italian Mindfulness Association certified instructors, whose keywords are: awareness, development of potential, stress management, excellent use of your own resources, impact on performance, centered leadership.

Abstract:
The objective of this case study is to illustrate the application of Mindfulness and Acceptance and Commitment Therapy (ACT) principles in an organisational environment. I described my personal experience as Senior Vendor Manager in a multinational company, operating in the e-commerce market, to successfully overcome the state of change when starting a new job. In particular, I analysed several issues faced, from the understanding of new people, of a new process and new culture to performance. I used a qualitative method conducted through personal interviews to managers with different roles involved in the new company. The
results of the information collected show how the application of Mindfulness during the different phases of the new job improved my ability to manage emotions, and ultimately my emotional intelligence, contributing significantly to my performance.

Symposium 9: Mindfulness: Experimental studies (1)
Chair: Federica Mauro

Aviva Berkovich-Ohana - Functional and structural neural modulations in long-term meditators
(Aviva Berkovich-Ohana, Sharon Gilaie-Dotan, Edna Furman-Haran, Michal Harel, Avital Hahami, Amos Arieli and Rafael Malach)
Abstract:
Introduction: Neuroimaging studies have begun to uncover the neural activity that mediates the positive effects of mindfulness meditation (MM). One of the key mechanisms proposed is a shift in self-related processing and its underling neural activity, largely related to the default mode network (DMN). Accumulating evidence shows reduced activity in the DMN during MM, but it is still unknown how this influences everyday brain function, and even structure.
Methods: Structural and functional MRI acquired from 18 long-term MM practitioners and 18 matched controls during resting-state or a visual recognition memory task. Neuroanatomy was analyzed via voxel-based-morphometry.
Results: During the visual task the meditators showed diminished task-negative responses in DMN areas, such as the precuneus, concomitant with increased visual cortex responsivity. During rest, the amplitude of the DMN fluctuations was reduced, while concomitantly enhanced in the visual cortex. The precuneus showed reduced grey matter (GM) density in the meditators, which was inversely correlated to meditation expertise.
Discussion: Our results demonstrate that long-term MM training influences the DMN activity, not only during task, but also in spontaneous fluctuations. Importantly, the alterations in trait (long-term) activity were correlated with anatomical changes, demonstrating a meditation-related function-structure relationship. These results support key mechanisms proposed to mediate MM effects, such as a functional and structural alteration in the neural activity of the DMN.

Mariya Shiyko - A within-person study of daily experiences during the 8-week mindfulness training
Abstract:
Effectiveness of mindfulness programs is typically examined in pre-post-test experimental designs. To understand the mechanism of action and individual responses, however, fine-grain approaches to data collection and analysis can be more informative. This pilot work aimed to examine daily experiences of participants undergoing a newly developed 8-week mindfulness training program.
Twenty two individuals (82% female, 70% Caucasian, median age 22.5, SD = 5.82) reported on their daily adherence to meditation and applied mindfulness exercises, along with their levels of stress, anxiety, emotions, personal appraisal of the degree to which emotions and thoughts bothered them, and daily activities, for the duration of 8 weeks.
Daily adherence to meditation was 76.9% (SD = 13.1) and to in-life mindfulness exercises 84.2% (SD = 14.9). Based on the variance partitioning multi-level model, a high degree of day-to-day within-person variability was found in stress, anxiety and emotions (p < .05); however, it also varied across individuals (p < .05). Overall, based on results of mixed-effects modeling, participants demonstrated a consistent reduction in their stress and anxiety from week to
week (p < .05) and reported being less bothered by thoughts and emotions (p < .05), while controlling for sleep and leisure.

This is the first study to undertake a within-person investigation of daily experiences in the context of mindfulness training. Beyond evidence of program effectiveness, this work presents a methodological innovation (design, measurement, and analyses) to inform future studies about approaches of in-depth investigations around “how” and “to what degree” mindfulness impacts individuals.

**Caroline Cuny - Are mindful people better at recognizing facial expressions?**
(Caroline Cuny, Rébecca Shankland, Lionel Strub, Martial Mermillod, Dominique Steil)

**Abstract:**
Introduction: Mindfulness is associated with an enhanced declared well-being (Brown & Ryan, 2003), but the mechanisms underlying these effects remain discussed and partly unknown. Research has shown an attenuation of emotional reactions towards aversive stimuli (Arch & Craske, 2006) and an improved emotional regulation associated with specific brain functioning (Davidson et al., 2003). This paper aimed at going further explaining the mechanisms underlying enhanced well-being in mindful people through a more accurate affective reactivity due to an increased awareness of emotional cues. The present study thus investigated the relationships between dispositional mindfulness and categorization of emotional facial expressions.

Method: 60 university students completed an online questionnaire measuring Mindfulness (CHIME; Bergomi et al., 2012) and a facial emotions categorization task. The stimuli were pictures of faces (six basic emotional expressions or a neutral expression), either unfiltered or modified by a low- or a high-pass filter.

Results showed that participants with a high mindfulness score differed in their accuracy to categorize faces expressing anger, joy, surprise and sadness, than less mindful participants. Some dimensions of the CHIME questionnaire were more associated with higher levels of accurate performance in categorizing specific emotions.

Discussion: The observed results confirmed that dispositional mindfulness is associated with more accurate recognition of emotional cues, not only negative ones, but also joy and surprise. Future research should investigate whether people trained in mindfulness increase their performance, as well as the time of onset of this modification.

**Lynsey Mahmood - Mindfulness reduces the correspondence bias**
(Tim Hopthrow, Nic Hooper, Lynsey Mahmood, Ulrich Weger)

**Abstract:**
Title, name of presenter(s), and contact address
Mindfulness Reduces the Correspondence Bias, Lynsey Mahmood, Centre for the Study of Group Processes, School of Psychology, University of Kent, Canterbury, Kent, CT27NP

Introduction: The tendency for individual’s to overlook situational factors and attribute the cause of others’ behaviour to dispositional factors is known as the correspondence bias. This theory suggests that subtle factors of the current situation are overlooked, and thus it was hypothesised that a brief mindfulness practice, focussing attention on the present moment, would help to reduce the correspondence bias.

Method: In three experiments a 5-minute mindfulness practice (vs. control in Study 1 & 2 and vs. attention to detail in Study 3) was delivered to students in laboratory settings. Participants were asked to read an essay which was either pro- or anti- nuclear power usage and were told that a student had been assigned to write the essay- that is they did not choose the position.

Results: The results showed that participants who had completed the mindfulness practice
were significantly less likely to commit the correspondence bias than those who completed control tasks and an attention to detail task.
Discussion: This suggests that practising mindfulness, even for as little as 5-minutes, encourages individuals to make less extreme judgements of others’ behaviour, which may have implications for other social biases. However, future research could work to uncover how this process works and why mindfulness reduces the correspondence bias.

Symposium 10: Mindfulness-based Approaches for People with Developmental Disabilities
Chair: Carrie McPherson

Ramasamy Manikam - Effects of Shenpa and Compassionate Abiding meditations on the aggressive behavior of individuals with mild intellectual disabilities

Abstract:
Individuals with mild intellectual disabilities who reside in the community often face situations that lead to verbal and physical aggression. We evaluated the effects of two inter-related mindfulness-based procedures, Shenpa and Compassionate Abiding meditations, for the self-control of verbal and physical aggression by three adults with mild intellectual disabilities. Following baseline, in a multiple-baseline design across subjects, the participants were individually taught the two meditations for self-regulation of their emotionally arousing behavior that typically ended in verbal and physical aggression. The Shenpa meditation was designed to help them to intuit arising negative emotion states that may lead to anger and aggression, and the Compassionate Abiding meditation to mindfully deal with the emotionally aroused feelings that may sometimes remain following Shenpa meditation. Results showed statistically significant reductions in verbal and physical aggression when compared to baseline. Furthermore the individuals were able to maintain the treatment gains during the 12-month follow-up period. These results suggest that individuals with intellectual disabilities can learn to self-regulate their emotionally arousing behavior and preempt the later occurrence of verbal and physical aggression through Shenpa and Compassionate Abiding meditations.

Petra Helmond - Mindfulness Training for People with Intellectual Disabilities: A Pilot Study
(Petra Helmond, Merel Punt)

Abstract:
Introduction: People with intellectual disabilities (ID) often experience stress, which may result in anxiety, depression, and aggression. In this project we developed a mindfulness training for adults with ID based on the Mindfulness Based Stress Reduction (MBSR) training. The aim of the mindfulness training was to teach participants to increase their attention, become more aware of stress signs and overcome automatic reactions. The goal of this study is to explore the feasibility and show preliminary outcomes of the mindfulness group training for adults with ID. Method: The mindfulness training consisted of nine weekly 90-minute-sessions and a booster session after 8 weeks. We made adjustments in the mindfulness training in language, meditations, psycho-education, group size and session time. Four pilot groups with thirteen adults with ID completed the mindfulness training guided by two trainers. We used questionnaires to measure attention, stress, anxiety/depression, and aggression. We collected data pre-training, post-training and at follow-up. Results: Preliminary results of the first set of two pilot groups show that the implementation of mindfulness group training is feasible and preliminary outcomes show a significant decrease
in anxiety/depression, however, no other significant improvements were found. Participants evaluated the program positively. Data-analyses of the second set of two pilot groups is upcoming. It should be noted that the attrition rate was higher in the second set of pilot groups. Discussion: This presentation will discuss the feasibility and preliminary outcomes of MBSR based mindfulness training for adults with ID. Program implementation issues with the target group will be discussed.

Monica M. Jackman - Effects of mindfulness yoga on aggressive behavior of adolescents with intellectual disabilities

Abstract:
Yoga is increasingly used to enhance psychological well-being across the life span. Reviews of extant research suggest that yoga for children and adolescents can be beneficial in terms of weight control, growth, chronic illness, depression and anxiety. However, the effects of yoga have not been evaluated on aggressive behavior in any population. In a multiple-baseline design across participants study, we assessed the effects of mindfulness yoga on the aggressive behavior of three adolescents with intellectual disabilities. The adolescents learned about body and breath awareness, followed by various asanas accompanied by mindful breathing, and sensory attention and awareness of the body (i.e., meditation in motion training). Prior to the mindfulness yoga training, the adolescents exhibited moderate levels of both verbal and physical aggression. Both types of aggression decreased significantly once they started practicing mindfulness yoga. These preliminary results point a finger at the moon—may be we should follow the finger and see where mindfulness yoga takes us.

Symposium 11: Constructivist perspectives on contemplative practices: A phenomenological approach

Chair: Roberto Ferrari

Roberto Ferrari - Animal experience and contemplative practices

Abstract:
The constructivist approach rejects the idea that living beings and their environment are objective and that they can be reduced to information and matter (Lewontin), considering them as continuous co-productions, based on lived experience of actions and perceptions. The animal does not fix stable entities but lives an undivided flow of here-and-now events, extended in its neighborhood (von Uexkull) in which it remains “absorbed” (Heidegger, Agamben). In this unified state it collects details (Grandin) and acts locally to enact an identity-world in the form of a visceral and silent narration. When struck by an unexpected perturbation, the animal lives a cognitive breakdown that it tries to absorb in order to maintain its vital equilibrium according to the theories of autopoiesis and enaction (Varela). Humankind has been able to come out of this radical immanence producing and manipulating separated and functional representations of entities, of a self, of an image/prediction of the world. Nevertheless it can remain imprisoned by the narrative models created or it cannot modify them when, in a breakdown, they reveal their inadequacy. Contemplative practices, as mindfulness, born in non-substantialist and non-theological traditions, have shown that they can reduce or interrupt the spontaneous production of images, narrations and hypotheses, also at a neural level (DMN) and take back the meditator to a dimension of visceral immediacy (Rilling). Meditation can leave us suspended and unidentified with the internal models; it can also increase the ability to live the breakdown in a creative, aware manner, as insight experiences and, in therapeutic environments, as sources of intra and inter-specific compassion.
**Fabio Giommi - Constructivism and Insight**

**Abstract:**
Vipassana, Insight, and Intuition are words derived from cultures separated in time and space, but share the very same etymological meaning and refer to the actual possibility for human mind of a deep, penetrative, non-conceptual, immediate seeing into the nature of reality: “see things as they are.” The actuality of a higher form of intuition is familiar and cultivated in Buddhist teachings and practices, as well as in most contemplative traditions. However, in modern mainstream Western thought it is viewed as unreal, illusory and pre-scientific. Psychology for example has been reluctant to acknowledge intuition as a radically different form of knowledge, conceiving it instead as the product of unconscious bottom-up processes, an outcome of implicit learning that becomes explicit. Nowadays the idea of “intellectual intuition” is mainly viewed as irrational and promoting illogical thinking. This is ironic because according to G. Frege and K. Gödel intuition is at the foundation of logic and mathematics and, therefore, at the base of rigorous rational thinking. It is interesting to note that mathematics is perhaps the only discipline in contemporary Western science where intuition or insight is acknowledged and cultivated by specific practices. The nature of intuition in Insight (mindfulness) meditation, in Husserl phenomenology, in mathematics shows similar characteristics. Yet, how can the idea of our capability of “seeing things as they are” and the idea of the constructed nature of our experience be embraced at the same time? How can wisdom (pañña) and the conditioned, constructed nature of experience (sānkharā) and knowledge co-exist?

**Stefano Poletti - Narrative Representations and the Lived Experience: the qualitative enquiry on mindfulness**

**Abstract:**
Contemporary mindfulness research seems shifting more towards therapeutic applications and to their evidence-based outcomes, than towards its investigation through qualitative methodologies. Contemplative practices inspired by the Buddhist traditions share with phenomenology the focus on the first-person analysis of experience: in both, the active self-identity confirmation process becomes auto-referential activity upon the inner model of the narrative process itself. The brightness of the ongoing experience allows an engagement with the identity construction, settling in the immediate “here and now” as a brute fact (Varela). When referred to itself, awareness enables a clear witnessing of its qualities, beyond its complex articulation: the spontaneous meaning-making construction in a pre-reflective time-expansion full of felt-sense. Qualitative enquiry on personal narrations about contemplative experiences, identity construction and new inclusive ways to think spirituality beyond any religious paradigm are now more than ever needed. Keeping a stable posture and scrutinizing the changeability of perceptions, the constant need for sense-confirmation flows in the phenomena flux, gradually engaging with itself instead of with its extrinsic aims, providing useful insights into the coupling between internal and external world. For example the common biographical disruption (Bury) in severe medical patients can be integrated highlighting that sense-making process itself. Some criticalities about the neutrality principle should then be considered: the sort of beliefs and worldviews enhanced through mindfulness programs are still unclear, as well as the psychological or spiritual nature of the quest for meaning. Finally each interaction of socio-anthropological and psychological factors should be deepened through the analysis of common symbols and paradigms based on shared cultural-backgrounds.
Symposium 12: Self-compassion: assessment and benefits for psychological well-being
Chair: Maya Schroevers

Nicola Petrocchi - Protection or Vulnerability? A meta-analysis of the relations between the positive and negative components of self-compassion and psychopathology
Abstract:
Introduction: Self-compassion is increasingly explored as a protective factor in relation to psychopathology. The Self-Compassion Scale (SCS) and its Short Form variant (SCS-SF) are the most widely used instruments for measuring this construct. Previous studies have shown that the total score of this scale is negatively associated with psychopathology. Half of the items of the SCS and SCS-SF are positive indicators of self-compassion and directly refer to the three key components of self-kindness, common humanity, and mindfulness, while the other half of the items are negative indicators of the construct and reflect the precise opposite of the key components, namely self-judgment, isolation, and over-identification. This meta-analysis examined the association of the positive and negative indicators of self-compassion with psychopathology.

Maya Schroevers: The moderating effect of stress on the association of self-compassion and self-criticism with depressive symptoms
Abstract:
Introduction: The Self-Compassion Scale (SCS) is currently the only self-report instrument to measure self-compassion. Recent evidence suggests that it measures two distinct facets: self-compassion and self-criticism that may relate differently to indicators of negative and positive affect. The current longitudinal study examined how self-compassion and self-criticism independently predict future levels of depressive symptoms and to what extent this relationship is moderated by stress (as indicated by number of life events and level of neuroticism).
Method: This longitudinal study was conducted in a large representative sample of 734 persons from the community. Persons filled out a self-report questionnaire at two points in time, over a one-year period.
Results: Only self-criticism predicted future levels of depressive symptoms, controlling for baseline levels of depressive symptoms. Moreover, we found a moderating effect of neuroticism, showing stronger associations of self-compassion as well as self-criticism with future levels of depressive symptoms in those reporting elevated levels of neuroticism. The number of stressful life events was not found to moderate the relationships of self-compassion and self-criticism with depressive symptoms.
Discussion: The enhancement of skills related to enhancing self-compassion and reducing self-criticism seem particularly relevant for persons being prone to neuroticism.

Hester Trompetter - Self-compassion and adaptation to chronic physical illness: A systematic review
Abstract:
Introduction: The dynamic process of healthy rebalancing following a medical diagnosis, (psychological) adjustment or adaptation, includes general adjustment tasks in disturbed life domains and also incorporates new disease-related tasks. Self-compassion may help adjustment as it offers a warm-hearted and non-judgmental context for the ill self, while being accompanied by a gentle motivation to alleviate suffering and undertake necessary actions to adjust. A systematic review of studies was performed on the role of self-compassion in adaptation to chronic physical illness.
Method A search string combined ‘self-compassion’ with search words for the most prevalent chronic physical illnesses (e.g. ‘diabetes’, ‘COPD’). Searches in Scopus, PubMed and PsycInfo revealed 602 papers. Primary inclusion criteria were: English-language; peer-reviewed, empirical articles; new data; adult samples of people suffering from chronic illness; a focus on self-compassion in the context of adjustment to chronic illness.

Results: Most of the resulting 16 studies were performed with people suffering from HIV, where shame and guilt are important themes. Other samples primarily concerned chronic pain and cancer patients. Almost all studies were cross-sectional in nature. Most reported significant relationships, primarily between self-compassion and anxiety and depression, and medication adherence.

Discussion: Self-compassion is a promising resource for successful adjustment to chronic illness. Proposed mechanisms include the use of more adaptive (e.g. acceptance), and less maladaptive coping strategies (e.g. rumination, avoidance, catastrophizing). More rigorous research designs need to be applied in the future. Also, more research is necessary on the role of self-compassion for adjustment domains such as optimal well-being and bodily functioning.

**Paul Gilbert - Three orientations of compassion and the development of their self-report measures**

Abstract:
Introduction: There is increasing evidence that compassion for the self and others is associated with well-being and reduced vulnerability to psychopathology. However there are a few valid self-report measures of these orientations.

Method: Using three student populations from USA Britain and Portugal, this study developed self-reports measures based on the standard definition of compassion as sensitivity to suffering in self and others with a commitment to try to alleviate and prevent it. This definition was the basis for three compassion orientations scales: compassion to others, being open and receptive to compassion from others, and self-compassion.

Results: Each scale had good psychometric properties. The relationships between the different orientations of compassion were moderate rather than large. While compassion is related to depression, it is more highly related to well-being. Self-criticism correlated more highly with depression and self-compassion.

Discussion: Compassion is a complex motivational orientation that is linked to well-being and psychopathology in non-linear ways. In addition the relationship between the different orientations of compassion to self and others is less pronounced than might be assumed.

**Symposium 13: Mindfulness and parenting**

*Chair: A. Giannandrea*

**Kim Zlomke - Examining the role of parenting style and attachment in dispositional mindfulness**

Abstract:
Introduction: Research has begun to examine the origins of dispositional mindfulness from a developmental and attachment perspective. Pepping and Duvenage (2015) found that parenting styles were related to dispositional mindfulness through attachment security. Such findings suggest that the root of trait mindfulness may be in early childhood experiences within the parent child relationship. The current study extends previous research in a diverse sample and by specifically examining attachment security in relation to parents of young adults.
Method: Participants included 207 undergraduate students (72.7% female, 60% Caucasian) attending a public university (X=19.18 years). Participants completed web-based surveys assessing mindfulness, attachment security, and recalled parenting. Participant’s primarily reported on their female caregiver (85.9%).

Results: Bivariate correlations revealed that higher levels of mindfulness were related to lower levels of attachment avoidance and attachment anxiety to parents. Additionally, increased mindfulness was significantly related to lower levels of parent psychological control, inconsistent discipline, and poor supervision. Avoidant attachment to parents fully mediated the relationship between parent psychological control and young adult dispositional mindfulness.

Discussion: The current research extends work on the origins of mindfulness by including a heterogeneous sample as well as specifically examining both general attachment security and attachment security related to parents in a young adult sample. Findings suggest that many parenting processes and behaviors may be predictive of adult mindfulness, although the greatest found relationship was between heightened mindfulness and the lack of negative parenting process such as inconsistent discipline, poor supervision, and psychological control.

M. Hilstra & M. Spijker - Mindfulness Based Family Intervention: Parent and Children as Equal Participants

Abstract:
Mindfulness Based Family Intervention
The Mindfulness Based Family Intervention was introduced by Mirjam Spijker and Milena Hilstra, mother and daughter, in 2011. Mirjam works as a clinical psychologist and is trained as mindfulness trainer, Milena is trained as a mindfulness trainer for children and adolescents.

The Mindfulness Based Family Intervention is a unique training for parents and children from 2-20 years old. The families are trained in a group setting during a weekend. Both parents and their children are trained together as equal participants.

Since 2011 Mirjam and Milena have trained over 60 families in more than 15 trainings. Participants learn the basics of mindfulness and share their (first) mindfulness experience in the group through inquiries led by the trainers and learn to implement the Mindfulness principals in their daily (stressful) life. The programs contains 5 themes: ‘Fresh view’, ‘Confidence’, ‘Mildness and Patience’, ‘Letting go and Acceptance, ‘Heartfulness and Compassion’.

Measures are done before, after and 3 months after the training through semi-structured interviews send by email. Both parents, adolescents and children name the long term applicability in their daily life and the usefulness of the learned exercises on stressful moments.

A presentation with video fragments and a published workbook (2012, BBNC) is available and contains the positive elements from the training: training in self-regulation, positive family interaction (open your senses; tune in; name with compassion in the here and now; setting boundaries) and compassion.

Since 2014 the MBFI has been implemented in a multidisciplinary pilot project for Obese children and their families.

P. Paoletti & A. S. Bombi - The empty space: the importance of parental attention, neutrality and observation in the parent-child relationship
(Patrizio Paoletti, Tania Di Giuseppe, Tal Dotan Ben Soussan, Ilaria Di Maggio, Antonella Selvaggio, Anna Di Norcia, Anna Silvia Bombi)
Abstract:

Introduction: The improvement of parents’ observational skills requires to reach a state of suspension of judgment and of greater neutrality (Paoletti, 2008), which in turn is central in the child’s development. To this aim, we designed the Empty Space (ES) (Paoletti, 2012), an educational setting in which the parents observe themselves and their children, and can reflect on the interactions taking place.

Method: In the current study, we examined the subjective experience of 67 parents following ES. A semi-structured interview and a questionnaire were administered and subsequently analyzed. In addition, we videotaped the children’s behavior during the ES, and analyzed 4 cases.

Results: Three main categories emerged from the parental reports: (1) self-awareness of the parent and to the child’s needs; (2) ability to observe and to suspend judgment; (3) child’s autonomy and social interactions abilities. In addition, the parents reported that ES was useful for their child ($M = 4.19; DS = 0.83$) and for themselves ($M = 4.61; DS = 0.57$). The behavioral analysis of the 4 children revealed a negative relationship between parental distraction and physical contact with the child, while the manifestation of smiles by the parents had the opposite effect.

Discussion: a parental training including moments of Being (as opposed to Doing), such as that provided by ES, may allow greater parental awareness and improve the parent-child closeness.

Herman Lo - The study of mindful parenting in Chinese populations

Abstract:
The construct of mindful parenting has emerged by integrating qualities of mindfulness in parenting relationship. A self-reported measurement scale called Interpersonal Mindfulness in Parenting (IM-P) has been developed by Duncan, and factors of parenting was identified: listening with awareness, compassion for child, compassion of self, self-regulation in parenting relationship, non-judgmental acceptance, and emotional awareness of self. On the other hand, Chinese parenting is often impressed as in authoritarian style, that gives relatively low sensitivity to children's needs but emphasizes strong control to children’s behaviors. This presentation adopts a mixed method study: the quantitative study are based on the findings of five scale validation studies of IM-P which were conducted in Hong Kong, Mainland China and Taiwan, with a variety of samples over 1600 parents, including parents of young children, adolescents, and those of children with developmental disabilities and healthy counter parts. It followed with a qualitative study that used focus group interviews to investigate parents’ lived experiences in mindfulness practice. Over 40 Hong Kong parents including experienced mindfulness practitioners, and completers of mindful parenting programs participated. The construct validity of mindful parenting in Chinese populations is assessed through triangulation of the data sources. Application and limitations of using self-reported measure in evaluating outcome of mindful parenting program will also be discussed.

Symposium 14: Mindfulness: Discussion papers

Chair: Federica Mauro

Mario Thanavaro Proscia - Mindfulness and Suffering

Abstract:
Suffering is a universal condition, an indissoluble part of man's life. No human being can avoid it in their life on earth. Sooner or later, one way or another, we all meet and experience suffering in one or more of its thousands of facets and aspects.
We all have a fundamental choice, however – we can know and experience pain and suffering on various levels of our being in either a destructive or a creative way, as either a friend or foe, leading to good or harm. This choice is truly essential given its implications for, and consequences on our physical body and our psyche, and mainly depends on our own level of awareness.

Life’s passages can be better understood only when we manage to reach an awareness of who we are deep within ourselves, and in order to achieve this we must be able to accept suffering. Without it, we will never know who we really are, but only who we think we are. This is the idea most people have about themselves and everybody strives to construct superstructures that strengthen this belief. People’s weakness lies here; they tend to see “what is not” and refuse to see things as they really are. Two things are indispensable for the development of higher awareness: first, having, or at least trying to have, an ability to listen, and secondly, being able to reflect and meditate.

If we are willing to meet suffering and comprehend it, and by understanding it look beyond it, we will discover that “Life is Joy and Joy is the clear and strong presence of Truth in our life and in everything.” Only by freeing the mind from ignorance are we able to satisfy our innate need for knowledge, peace and harmony.

Timothy Sahaja Davis - Mindfulness: Collaborator Or Revolutionary? A Discussion Paper Exploring the Transmogrification of Mindfulness and its Current Role Within European and North American Cultures

Abstract:
Introduction: The process of transmogrification of mindfulness within different cultures has resulted in mindfulness being understood and practised in ways divergent as the contemplation of the decomposition of one’s own body, focusing on the breath and flower arranging. From a critical realist position ‘mindfulness’ exists and is embedded within cultural contexts. Through specific cultural forces in Europe and North America mindfulness has taken on its own particular and perhaps peculiar qualities.

Method: This discussion paper explores a selected range of sources from within the mindfulness academic community and mainstream media to infer as to the process and product of these forces in shaping what is understood as mindfulness.

Results: Activities such as research funding applications and the promoting and marketing of courses within the medicalised, positivistic, commodifying cultures of Europe and North America have led to a ‘mindfulness’ that necessarily colludes rather than challenges the status-quo. As such mindfulness has been transformed into a device that supports the pathologies that exist within European and North American cultures.

Discussion: Whilst in Europe and North America mindfulness is not without its individual and cultural benefits, we within academic community would benefit from embracing greater uncertainty as to our comprehension of this concept. I suggest that through this endeavour a liminal space could emerge that would provoke a richer and more challenging appreciation of what mindfulness may allude to.

Gavin Anderson: Mindfulness, law and neuroscience: towards a paradigm of relationality

Abstract:
This paper outlines the more radical implications for political and legal theory of a fuller engagement with the ontological roots of mindfulness. Its central claim is that such an engagement represents a major shift in the existing literature on law, neuroscience and public policy in two fundamental ways: it confronts this literature with the insight (increasingly
supported in the scientific community) that we are significantly more connected to each other than Modern thought has generally admitted, and as such focuses debate on how this understanding would lead us to treat each other differently. Mindfulness presents potentially far reaching challenges to widely held assumptions of Western social science; its emphasis on first hand experience in understanding consciousness raises important questions regarding the (temporal and normative) priority of conceptual thought which in turn undermine methodological individualist understandings of the self. This opens fresh space for revisiting fundamental questions about the creation of meaning and what it is to be human, currently obscured in the law and neuroscience literature. We consider the prospects for developing a new paradigm of relatedness based on Gergen’s idea of ‘co-constitution,’ i.e. that we are ‘always already emerging from relationship,’ which overcomes the limits of dualism, particularly the division between self and other. This connects the theoretical challenge to pragmatic questions of effecting transformation at the institutional level, for example, to foster values of compassion. Here, we consider how the idea of ‘relational responsibility’ can provide the basis of a human right to a universal basic income.

**Juyan Zhang - The Creation of Avalokitesvara: Exploring his Origin and Alienation in the Northern Agamas**

Abstract:
Starting with an intertextual analysis between the northern Agamas and Avalokitesvara’s (A.) iconography established through archeological studies, this research argues that the prototype of A. was Megha in the Dipamkara Buddha story; the Eleven-headed A. was based on the eleven benefits of and the eleven directions in practicing the Divine Abidings; and the meaning of A.’s title was based on the Buddha’s self-recount on how he surveyed the world upon awakening. The research argues that A. was developed as a composite figure that represented the Buddha’s bodhisattva aspect. The conclusion is corroborated by intertextual analyses between the Agamas and the Heart Sutra as well as the chapter on A. in the Lotus Sutra. The research also argues that the narrative structure of the Karunapundrika Sutra was adapted from an Agama text, which represented a clear alienation from A.’s prototype, namely the Buddha’s bodhisattva aspect.

**Symposium 15: Ethics and Epistemology of Mindfulness**

Chair: Monica Jackman

**Donald McCown - Defining and analyzing the ethical space of the Mindfulness-Based Interventions**

Abstract:
Introduction: The mindfulness community is involved in dialogue about ethical dimensions of mindfulness applied in clinical and educational contexts. One view of mindfulness teaching suggests that an ethics of the mindfulness-based interventions (MBIs) is inherent in their pedagogy; that is, that an ethical space is co-created and sustained by teachers and participants.

Method: An analysis of the core curriculum of MBSR as a template for mindfulness teaching, leads to a description of an ethical space. Seven qualities established in the pedagogy suggest seven dimensions of the space. Three qualities of “doing” (corporeality, contingency, and cosmopolitanism), three qualities of “non-doing” (non-pathologizing, non-hierarchical, and non-instrumental), and a single quality of friendliness that pervades the other six are identified.
Results: A co-created space can be seen as a first-order (inherent) morality that is extremely difficult to transgress. Further, the coming together of teacher and participants also makes alternative ethical structures available in the event of transgression or collapse of the ethical space. Finally, further analysis of effective teaching helps define an aesthetics of the pedagogy, which can then be used to assess the relative strength of an occurrence of an ethical space.

Discussion: This model of an inherent ethic in the relational pedagogy of the MBIs does not attempt to directly address the larger cultural issues that inform the dialogues around ethics and mindfulness, yet it may allay fears within clinical and educational applications.

Geetesh Nirban - Mindfulness as an ethical ideal in Bhagavadgītā

Abstract:
Bhagavadgītā (BhG) is a part of the ancient Hindu epic Mahābhārata. Being a quintessence of Hindu religious tradition, philosophy and culture, it has an exalting ethical significance for human life/living. As a prelude to battle of Kurukṣetra, it is a colloquy between Kṛṣṇa and Arjuna when Arjuna is disconsolate, distressed, confused and unwilling to wage a war due to emotional dilemma. This paper proposes to explicate that Arjuna's mental condition reflects psychological chaos on account of conflicting human situations/emotions and Kṛṣṇa's effort consists in arousing the spirit of mindfulness in Arjuna by encouraging him to focus on awareness of the present moment while conquering the mind by befriending it instead of becoming slave of it.

Viewing BhG through the lens of mindfulness, the study addresses and analyses the ideal of sthīthaprajña (stable intellect- BhG) and draws its parallel with the concept of sati(mindfulness -Buddhism) by elaborating how BhG lays emphasis on controlling the mind by rising above the fetters of three guṇa-s (sattva, rajas and tamas). Through a detailed exposition of Niṣkāma karma(detached action), the paper aims to project how the synthesis of the path of jñāna (knowledge) with karma (action/duty) actually paves the way for mindfulness as an important ethical value for the individual and social wellbeing. It further draws attention to the point that ethics of BhG does not endorse reclusive or indulgent methods but lays emphasis on selfless dutifulness for consciousness about mindfulness to makes it emerge as an ethical ideal.

Sonia Bortolotto - The Abhidharma text: the epistemology of Mindfulness

(Vincenzo Tallarico, Filippo Scianna, Sonia Bortolotto)

Abstract:
Mindfulness is a Western declination of the Buddhist meditation tradition. The western adaptation of these practices to the modern world was necessary to show the epistemological potency of these traditions to the western audience. The mission of the “Mindfulness Project Association (MP)” is to present a Buddhist Dharma oriented declination. This Mindfulness approach is the comprehension of the interrelation and impermanence of every phenomenon and subsequently on the development of the four “Brahmavihara-Sublime attitudes”.

The meditation process permits the person to realize that any mental or physical phenomenon are born, persist and fall when one reflects on their causes. At that moment, they realise that we are not separate, autonomous entities and that we are interrelated to everything. The meditation process automatically accompanies the natural development of the four “Brahmavihara Sublime Attitude”. These qualities develop when the “Human egoic” construction is dissolving. The Mindfulness approach gives the opportunity to reflect, to find oneself. It also develops a clear, stable and intuitive mind. This adaptation helps manage stress, grief, negative emotions. It also enhances personal growth. Mindfulness is a Buddhist oriented approach that adds all the Buddhist wisdom with the “Sublime Attitudes” and the
importance of the Brahmavihara virtues. This philosophy underlines the importance of understanding the mind and the “human ego” to the “Sublime Attitudes”. The “MP” wants to help unite western psychology and Buddhist Dharma. The Italian Buddhist Union supports the activities of the association. The majority of the activities are based at the Lama Thong Kapa Institute.

**Symposium 16: Instruction in mindfulness**

*Chair: Stefano Poletti*

**Carole Cavanaugh - Mindfulness for Millennials: Contemplative Practice in the College Curriculum**

*Abstract:*

What benefits do students experience when mindfulness practice is a regular part of classroom instruction in a highly competitive liberal arts college? The paper compares two groups of freshmen entering Middlebury College in 2011 and 2015. Fourteen students in both years enrolled in a seminar comparing the uses of nature in environmental art. The course also instructed students in mindfulness techniques to engage more fully in course material. Each class began with ten minutes of mindfulness meditation; students committed to an additional fifteen minutes of meditation each day. The 2011 class entered college with no familiarity with mindfulness. They reported taking the course out of curiosity and generally did not expect to engage in mindfulness practice after the end of the term. Students in 2015 reported actively choosing the seminar because they had had some experience with mindfulness practice or had heard about it before entering college. Students in 2015 reported deepening their commitment to regular meditation; some became engaged in developing entrepreneurial activities incorporating contemplative practice. In 2011 the seminar was one of only two courses at Middlebury using mindfulness. In 2015 an initiative called “Mindfulness at Midd” had just been launched promoting mindfulness in several courses and in other aspects of college life. The differences in the two groups may indicate a greater permeation of mindfulness among millennials in the last four years. Mindfulness may be more beneficial when integrated into both the curriculum and residential life rather than compartmentalized as an added option for wellbeing.

**Alon Raz - An integrated model of mindfulness in psychotherapy and in psychotherapy training**

*Abstract:*

In recent years mindfulness has become an important technique integrated into different methods of psychotherapy (such as MBSR, MBCT, ACT, DBT, SE, focusing, Hakomi, etc.). In fact it can easily be shown how most psychotherapy methods are based in one way or another on mindfulness either in practice or in essence. However, too often Mindfulness is considered and practiced in psychotherapy utilizing a very specific and in that sense limited, implication or aspect, namely - broadening inner reflective space, while Mindfulness is a multi-facet concept and as such needs be taught and practiced in psychotherapy.

Over the last years, I have been the head of a school for mindfulness based psychotherapies. On my short paper I would like to present the insight me and my colleagues have gained through our accumulated experience in shaping our different psychotherapy trainings and programs.

Basically we have come to notice that there are four different aspects of mindfulness that are relevant to transformative processes. The first has to do with expanding one inner space in a
reflective manner – witnessing one’s inner world- body, thoughts, feelings, etc. in a nonjudgmental and accepting attitude. The second involves expressing one’s inner world in any form of action – speech, movement, artistic, etc. The third involves being aware of being witnessed by another person while in action. The fourth involves mindfulness in interaction and involves a complex inner world-outer world relational mindfulness.

I will further expand and discuss these four facets of mindfulness on my presentation.

Ayse Dayi - Explorations into Mindful Education in Turkey

Abstract:

Last semester, in the Introduction to Psychology course, I introduced students to the theory of mind in Buddha’s teachings. Using videos on mindfulness and serenity, and a brief practice of breathing meditation, I explained how, in Buddha's teachings, “our everyday mind” worked (with its evolutionary reasons) for survival yet blocked wisdom and serenity, which also exist in us as our “non-dual, Buddha minds.” I explained the three main misunderstandings of our usual minds, the eight worldly winds and the eightfold noble path. In a university where the majority of students and administrators are practitioners of Islam, this was met with enthusiasm, with students relating these to the workings of their own minds and seeing a similarity to Sufism. Having had used qigong and meditations in a Women and Health course I taught in the U.S., being a practitioner of the Way, and working currently with a group of colleagues on alternative university models, I am curious to explore the possibilities of mindful education in Turkey. In this paper, using interviews with yoga and meditation teachers, and educators who are practitioners, and holding a movement workshop in a university setting, I will explore the possibilities of mindful teaching in the context of Turkey, where religious fundamentalism (in the context of neoliberalism) is on the rise. I will utilize books and articles written on this topic (e.g. Barbezat & Bush, 2014), the work compiled by the Center for Contemplative Mind in Society in the U.S., as well as relevant writings in Turkish.

G. Tymowski-Gionet - Introducing mindfulness practice in two kinesiology undergraduate courses: preliminary findings and student reflections

Introduction: Mindfulness interventions in schools have gained popularity in the last decade, and they have reported positive outcomes. Mindfulness practices were introduced to students in two university courses in a faculty of kinesiology. One course focused on applied ethics in kinesiology (EK) and the other course focused on the coaching of healthy behaviours (CHB).

Method: Students were introduced to sitting meditation in the second class of the term. The concept of mindfulness and how it may be practiced was explained, and supplemental readings were provided. In the EK class, students remained in their seats for each session. Each session in both classes began and ended with a bell. In the CHB class, students practiced in a variety of settings including assuming seated and supine positions on the floor, and also in seated positions in a classroom. Additionally, the CHB class engaged in a full yoga class once during the term, and an abbreviated yoga session at the end of the course, prior to engaging in a 20 minute body scan. At the end of the 13 week term, all students were invited to reflect on their experiences with the practices in their course journals.

Results: The majority of students reported favourable experiences with the mindfulness practices; however, students in the CHB class responded more positively in their reflections to the practice than the EK class. Selected student reflections will be shared during this presentation.

Discussion: This was an exploratory exercise in introducing mindfulness practice in academic courses. Based on student experiences, and the strength of outcomes from the evidence-based
literature on implementing mindfulness programmes in classrooms, the intention is to repeat
the interventions in the fall of 2016. An attention awareness scale will be used at the
beginning and end of the term to measure changes in students over the duration of the
practice experience.

Symposium 17: The relationships between mind and body: Explaining the effects of
mindfulness on stress
Chair: Marco Mirolli

Marco Mirolli - Mindfulness and the Mind/Body unity
Abstract:
There is ample empirical evidence that mindfulness training can be beneficial for the
management of stress and stress-related disturbances (Chiesa and Serretta 2009). However,
an understanding of the mechanisms through which mindfulness can affect stress is lacking.
Understanding the relationships between mindfulness and stress requires an explanation of
the relationships between the Mind and the Body.
In this presentation I propose a novel non-dualistic theory of the mind/body unity, inspired
by Buddhism and Advaita Vedanta, but deeply rooted in contemporary science. According
to this theory the mind/body unity is a hierarchical network of coupled dynamical systems. Each
body system (e.g. nervous, circulatory, endocrine, immune, digestive, respiratory...) can be
considered as a dynamical system, and the systems are coupled in the sense that variables in
one system can affect those in another, in a circular fashion. The network is hierarchical
because different systems have different levels of interactions with each other and the
systems themselves, in particular the nervous system, have an intrinsic hierarchical
organization. This theory provides a new scientific vision of illness and health which promises
to explain several phenomena that are puzzling for current scientific and medical
understanding, such as why chronic illness are so difficult to treat or why 'miraculous'
healings (radical remissions of incurable diseases) are possible. I will explain the theory, show
the several kinds of empirical evidence supporting it, and describe how it can explain why
mindfulness training reduces stress-related phenomena and thus improves physical health in
general.

Tania Moretta - The neurobiology of mindfulness, stress and their interactions
Abstract:
Recent neuroimaging studies are uncovering the brain areas and networks that underly the
beneficial effects that mindfulness training can have on stress management (Sharma and Rush
2014) and both mental and physical health (Keng et al. 2011, Gotink et al. 2015): in particular,
both structural and functional changes have been shown following mindfulness training in
various parts of the brain, includig the cingulate cortex, the prefrontal cortex, the amygdala,
and the hyppocampus (Tang et al. 2015). The stress response is a complex phenomenon mediated
by a distributed system that includes the central nervous system, the autonomous nervous
system, and peripheral organs (Chrousos 2009). Recent research has shown that stress can
modify various brain areas, in particular increasing
several sectors of the amygdala, while decreasing parts of the hippocampus and the prefrontal
cortex (Davidson and McEwen 2012). After reviewing the empirical literatures on the
neurobiology of mindfulness and of stress, we will propose that mindfulness training can
affect the brain through both a direct regulation of the activity of different brain areas and an
indirect effect on the same brain areas that is dependent on its ability to reduce stress.
Furthremore, given the bidirectional link between the brain and the body, we will suggest that integrating mindfulness training with biofeedback, a psychophysiological technique that is effective for improving several stress-related physical and medical conditions (Yucha and Montgomery 2008), may potentiate the beneficial effects that they have when used alone thanks to their complementary effects on stress.

Luca Simione - Modeling the effects of mindfulness on stress

Abstract:
We propose a model of the interactions between the nervous systems and the rest of the body which explains why and how mindfulness training is beneficial in stress management and for stress related psychological and physical problems. The hypothesis behind the model is that a major component of chronic stress is due to mind-wandering and rumination, which tend to continuously activate the sympathetic nervous system and the stress response. The focus on the present moment decreases mind-wandering (Brewer et al. 2011, Mrazek et al. 2013), which in turn allows to deactivate the sympathetic system and activate the parasympathetic system (Tang et al. 2009), decreasing stress and improving physical and mental well-being.

Method
Our model includes a set of simulated areas strongly related to mindfulness and mind-wandering, including different parts of the prefrontal cortex, the amygdala, the hypothalamus, as well as a simulation of the sympathetic and parasympathetic systems.

Results
The model explains the mechanisms behind the effects of mindfulness on stress reduction on the basis of the reciprocal interactions between the body and several neural systems, and the sympathetic and parasympathetic branches of the autonomous nervous system.

Discussion
We show how the model can be implemented in a working neurocomputationl model which may reproduce and explain different kinds of empirical phenomena related to mindfulness training, both neural (e.g. increase in prefrontal cortex and decrease in amygdala activations: Taylor et al. 2011, Holzel et al. 2013), and physiological (e.g. increase in parasympathetic and decrease in sympathetic activities: Rubia 2009).

Symposium 18: Neuroscience of mindfulness and meditation

Chair: A. Giannandrea

Antonino Raffone - Meditation states and expertise modulate oscillatory coupling of brain networks in Buddhist monks
(Antonino Raffone, Vittorio Pizzella, Laura Marzetti)

Abstract:
Several cognitive and affective neurosciences studies highlight the crucial role of brain networks for coordinating brain states, cognitive and affective responses, with particular reference to the default mode network (DMN), the central executive network (CEN) and the salience network (SN). Such networks are also central in a range of psychopathological conditions. The present study investigated the oscillatory coupling within and between DMN, CEN and SN by magnetoencephalography (MEG) in focused attention (FA) and open monitoring (OM) meditation with the participation of long-term (‘virtuoso’) meditators of the Theravada Buddhist tradition. Eight Theravada Buddhist monks (all right handed males,
mean age 37.9 years, range 25–53 years, SD 9.4 years), with, on average, over 15,750 h of meditation practice in Theravada Buddhist monasteries participated in the study. The experimental paradigm consisted in a block design of 6 min FA meditation and 6 min OM meditation blocks, each preceded and followed by a 3 min non meditative resting state block (Rest). Each sequence was repeated three times. We found a decreased oscillatory coupling within and between key nodes of the DMN, CEN and SN with both FA and OM meditation as contrasted with Rest in the bands delta, theta, beta1, beta2, gamma1 and gamma2, but not in the bands alpha1 and alpha2. In the contrast between FA and OM a reduced coupling was observed in OM between a subset of the nodes specifically in the band alpha2. Remarkably, a subset of the couplings correlated with meditation expertise, with lower coupling for more expert meditators. Our study suggests that non-reactivity and non-judgmental aspects of mindfulness meditation as reflected in both FA and OM meditation can be associated to reduced oscillatory couplings within and between key brain networks in multiple oscillatory bands, but not in the alpha band. The latter band can indeed enable a cyclic gating of interfering emotional and thought contents during meditation while sustaining awareness and large-scale coherence in the brain.

Roberto Guidotti - Prediction of meditation experience using fMRI functional connectivity and pattern regression
(Roberto Guidotti, Mauro Gianni Perrucci, Cosimo Del Gratta, Gian Luca Romani, Antonino Raffone)
Abstract:
We describe how the number of years of meditation experience can be estimated using fMRI functional connectivity (fcMRI) and pattern based regression in a group of expert meditators. Participants were 12 Theravada monks, with different numbers of years of meditation practice experience. fMRI was recorded on a 1.5 T Siemens Magnetom scanner. The paradigm consisted of 6 min focused attention (FA), and 6 min open monitoring (OM) meditation blocks, preceded and followed by 3 min resting state blocks. We extracted timecourses from preprocessed fMRI signal, for each meditation style, from ROIs defined by findLab Atlas and computed the Fisher’s correlation between timecourses. The correlation values were used as features for the regression algorithm while subjects were the samples.
We used a linear support vector regression (SVR) with a correlation-based feature selection to reduce dimensionality, and cross-validation model selection. We used mean squared error (MSE) and Pearson's correlation (COR) between predicted and real values of years of meditation experience to validate the model, and permutation tests (n=2000) to assess statistical significance.
We obtained significant results for both styles (OM: MSE=0.620 (p<0.04), COR=0.834 (p<0.005); FA: MSE=0.597 (p<0.04), COR=0.857 (p<0.005)). We conclude that SVR and fcMRI can be used to predict the number of years of meditation experience in both FA and OM meditation styles. This method could be used to highlight fine-grained pattern differences in meditator connectomes that are modelled by experience.

Narayanan Srinivasan - Neural Correlates of Visual Awareness Changes due to Concentrative Meditation: A fMRI Study with Color Afterimages
(Narayanan Srinivasan, Amrendra Singh, V. S. C. Pammi, & Anupan Ghuleria)
Abstract:
Color afterimages have been used as a tool to study the link between attention and awareness. In a prior study, we found longer afterimage durations and sharper afterimages with Sahaj
Samadhi (a concentrative meditation technique) meditators compared to non-meditators possibly due to better attentional focusing in the primary task. In this study, we investigated the neural substrates underlying the formation of afterimages as a function of attentional processes in Sahaj Samadhi (SS) meditators and non-meditators. We hypothesized that in addition to activations in visual areas, activations in frontal areas involved in control of attention would show differences due to the practice of SS meditation. We used the same primary counting task that utilized hierarchical letter stimuli (local and global processing) and single letter stimuli of varying size (small and large). Functional MRI data was acquired on a 3T FMRI scanner for SS meditators (n=13) and an age-matched non-meditators (n=14). The experimental protocol was approved by the Institutional Ethics Committees of University of Allahabad and CBMR. Participants reported the onset, offset, clarity and color of afterimages. Afterimage durations were significantly longer for SS meditators compared to non-meditators indicating that concentrative meditation practice changes phenomenal appearance. The functional MRI results revealed that the right inferior occipital cortex (V3/V4) cortex and right inferior frontal cortices showed higher brain activations in SS group compared to controls. These results show the involvement of a fronto-occipital network underlying the changes in phenomenal appearance of color afterimages for meditators.

**Akina Yamaoka - Mind-wandering improves creative problem solving**
(Akina YAMAOKA, Shintaro YUKAWA)

**Abstract:**
This study examined whether mind-wandering during the incubation period improved creative problem solving. Previous research suggested that engaging in the undemanding task (low cognitive load) during the incubation period generated more mind-wandering and facilitated more incubation effects than engaging in the demanding task (high cognitive load). In the current study, 59 Japanese undergraduate participants were required to complete the Unusual Uses Test (UUT) before and after the incubation period. During the incubation period, participants were assigned to any of these 4 experimental conditions; engaging in the demanding task, the undemanding task, simply resting, and having no incubation period. Immediately after the incubation period, participants were asked to answer how their mind wandered during the period. The results showed that, regardless of the conditions, participants whose mind had frequently wandered during the incubation period displayed higher improvements in the UUT than those whose mind had infrequently wandered.

**Symposium 19: Here I am: Whole-body movement induced neuroplasticity in neurodevelopment and neurodegeneration**

**Chair: Tal Dotan Ben-Soussan**

**Tal Dotan Ben-Soussan - Inner Design Technology and Neuroplasticity following Training**
(Patrizio Paoletti, Tal Dotan Ben-Soussan)

**Abstract:**
Introduction: The Quadrato Motor Training (QMT) is a tool of Inner Design Technology (IDT), involving sequencing of motor responses based on verbal commands, recently demonstrated to have positive effects on cognition and neuroplasticity. IDT is a discipline for the management of one's behavior designed to draw the inner world in accordance with one’s most intimate aspirations, combining conscious and voluntary commitment, which in turn allows inner and outer changes of the interactions with the world. Related to this, the scientific study of movement-related contemplative practices has proceeded without much
attention to the range of psychological and phenomenological changes thought to occur during the practice. Methods: In the current talk we will present first-person reports related to QMT-induced experiences, derived from both practitioners of breathing meditation (BM) who practiced the QMT for one compared to 4-weeks of daily training, as well as control non-BM practitioners who practiced the QMT for 4-weeks of daily training. Results: 4-weeks of QMT increased Altered State of Consciousness (ASC) and Attentional Effort experiences. We further discuss structural similarities with meditation. Discussion: By contextualizing reports of QMT-induced experiences, a greater understanding regarding the range of whole-body contemplative induced experiences can be gained. We further emphasize that while an integrated examination of the effects of cognitive and neural aspects is essential, it is equally important to study the neurophenomenological effect of subjective experience. These will further be discussed in the context of IDT.

Federica Mauro - Effects of the Quadrato Motor Training over EEG creativity markers
(Federica Mauro, Filippo Carducci, Mario Tombini, Carlo Cosimo Quattrocchi, Yuri Errante, Carlo Augusto Mallio, Scarcioilla Laura, Tal Dotan Ben-Soussan)

Abstract:
The Quadrato Motor Training (QMT) is a learning paradigm showing significant effects on cognitive performances, as those implied in creativity and reaction times. Recent studies have shown how the blend between motor and cognitive components, which distinguishes the QMT from other mindfulness practices and training paradigms, leads to an increase of ideational flexibility. From the psychophysiological point of view improved creativity was accompanied by increased EEG alpha (8-12 Hz) coherence (Ben-Soussan et al., 2013). As a matter of fact, alpha power serves as an important electrophysiologic index which has been often quantitatively linked to creativity, as well as functionally, and also considering the specific topographic distribution of the activity within the involved areas (e.g. Fink and Benedek, 2011). Importantly, research of various meditation techniques has consistently reported increased frontal alpha power and coherence (Travis, 2001; 2009) and increased creativity (Horan, 2010). Confirming these observations, in a recent study we have conducted, QMT is also accompanied with significant increased alpha spectral power in right parieto-occipital and frontal areas. In conclusion, this new evidence refines and deepens the knowledge of the relationship between the QMT and creativity, also offering important insights about the temporal evolution of the effects of the training.

F. Carducci- Investigations into Diffusion Tensor Imaging: the effects of Quadrato Motor Training
(Filippo Carducci, Giulia Santi, Carlo Cosimo Quattrocchi, Yuri Errante, Carlo Augusto Mallio, Scarcioilla Laura, Tal Dotan Ben-Soussan)

Abstract:
Introduction: Diffusion tensor imaging (DTI) techniques have made it possible to investigate white matter plasticity. Changes in DTI measures, principally increases in fractional anisotropy (FA), have been observed following different training programs, including meditation. In an attempt to uncover the underlying mediating neuronal mechanisms for mindful movement-induced cognitive changes, here we focused on the Quadrato Motor Training (QMT), a whole-body sensorimotor training paradigm, investigating its effects in healthy brain development.

Method: DTI data of 35 right-handed healthy volunteers (21 females, 36.7±5.3 ys) were acquired at the beginning, after 6 and 12 weeks of QMT daily practice, and analyzed using FSL with Tract-based spatial statistics (TBSS).
Results: TBSS analyses (p<0.05 corrected) yielded significant increases in the FA values following a month of training, mainly localized in the internal and the external capsule, corona radiata, and cerebellum, which are known to play a key role in the process of awareness.

Discussion: Increased FA values reflect an altered organization of underlying white matter pathways. The increases localized in the cerebellum are related to sensorimotor coordination and attention required in the QMT. Furthermore, FA increases in the corpus callosum could lead to a more efficient inter-hemispheric transfer, related to improving attention and self-regulation previously found following QMT and meditation trainings.

Micaela Caserta - Improved creativity and neurotrophic changes following Quadrato Motor Training
(Micaela Caserta, Sabrina Venditti, Loredana Verdone, and Tal Dotan Ben-Soussan)
Abstract:
Introduction: A growing body of literature demonstrates that mindful practice of movement can yield improvements in cognitive and attentional skills. Movement exemplifies the inseparability of mind and body. Quadrato Motor Training (QMT) is a specifically structured walking meditation, recently found to improve creativity and reflectivity, as well as neuroplasticity. Neuroplasticity implies remodeling of neuronal structures, which in turn involves molecular modifications. Methods: Using western blot, we analyzed the protein levels of two neurotrophins, brain-derived neurotrophic factor (BDNF) and nerve growth factor (NGF) in saliva samples of healthy volunteers who practiced QMT for 1-3 months. The results show that QMT induces increased proBDNF (related to synaptogenesis) and decreased proNGF (related to neurodegeneration) relative to controls. Results: These molecular changes were further correlated with increased cerebellar volume, as shown by multimodal magnetic resonance imaging (MRI) and with increased creativity, respectively. To investigate more deeply the mechanism underlying neurotrophin level changes, we will analyze the expression of their genes and the regulatory pathways involved. Discussion: The current talk will further discuss the mechanisms allowing healthy development and aging, linking together the QMT-induced electrophysiological, biochemical and anatomical modifications, with the aim of explaining the beneficial effects of this mindful practice and other meditation paradigms.

Symposium 20: Stress at work: Does mindfulness help?
Chair: Ramasamy Manikam

Jeffrey Chan - Reducing 1:1 Observations through Mindfulness-Based Positive Behavior Supports (MBPBS) Training for Caregivers
Abstract:
Caregivers are sometimes assigned to 1:1 special observations or staffing for individuals with intellectual and developmental disabilities who engage in aggressive behaviors. While this is not treatment, and may violate the individuals' human rights, service providers resort to this practice by policy for the safety of the individuals, peers and staff. We provided a 7-day intensive Mindfulness-Based Positive Behavior Support (MBPBS) training to caregivers and assessed the outcomes in terms of the use of 1:1 staffing patterns, aggressive behaviors of the individuals, caregiver variables, and benefit-cost analyses. When compared to a control group that did not receive the MBPBS training, the results showed the MBPBS-trained caregivers gradually reduced and eliminated the use of 1:1 staffing, the individuals' aggressive behaviors declined substantially, and there was substantial financial savings to the service providers. This study provides further proof of concept for the effectiveness of MBPBS training for caregivers, and strengthens the call for training staff in mindfulness meditation.
Esther I. de Bruin - Mindfulness training in a corporate world. Effects on well-being and work-competence of employees of a large multi-national company
(Esther I. de Bruin, Rachel T. van der Meulen, Bonne J. Zijlstra, Anne R. Formsma, Jorien de Wandeler, & Susan M. Bögels)

Abstract:
Companies and their employees face numerous challenges in our contemporary 24-hours society. Organizations are confronted with continuous transformation, globalization, growing cultural changes and a constant need for efficacy and efficiency. This influences the work atmosphere, that is often typified by velocity, time pressure, competition, job insecurity and being confronted by overloads of stimuli on a daily basis. The aim of the current study was to evaluate the effects of the 8-week mindfulness program ‘Mindfulness: Finding peace in a frantic world’, developed by Marc Williams, Danny Penman and Chris Cullen offered to employees (n = 118) of a large multinational company. Method. Measures concerning psychological well-being, mindful awareness and functioning at work were assessed. Psychological measures included stress, depression, anxiety, risk for burnout, fatigue, physical activity, motivation, concentration, happiness, positive affect and negative affect. Work-related measures included work ability, competence as employee, relationship with colleagues, communication with colleagues, communication in the organization, work satisfaction, belonging to larger work community, and focus on work priorities. A wait-list, pre-test, post-test, follow-up design was used. Results. During wait-list no change occurred as expected. Further, all outcome measures significantly improved (mostly with medium to large effect sizes) after the training and effects were largely maintained into the follow-up period. Discussion. This study showed that mindfulness training can feasibly be embedded in a corporate world and that stress related complaints can be largely reduced for employees in a multinational company, with additional positive effects on work-related measures and commitment to the company.

Carrie L. McPherson - A randomized controlled trial of the effects of caregiver training in Mindfulness-Based Positive Behavior Supports (MBPBS)

Abstract:
Caregivers are often injured when managing the aggressive behavior of individuals with intellectual and developmental disabilities, especially when they have to resort to using physical restraints. Such care results in staff stress, compassion fatigue, and high staff turnover. Recent proof-of-concept studies have suggested that providing training in Mindfulness-Based Positive Behavior Supports (MBPBS) to caregivers significantly reduces their use of physical restraints, and decreases staff stress and staff turnover. We evaluated the effectiveness of MBPBS training against standard behavioral training in a randomized controlled trial. Caregivers were randomized by homes into either the MBPBS or behavioral training groups and provided intensive training according to a matched protocol in terms of time and trainer interaction. While both forms of training reduced staff use of physical restraints, significantly greater reduction was evident for the MBPB group. In addition, significant reductions in staff stress, staff turnover, and staff compassion fatigue was evident only in the MBPBS group. Furthermore, a benefit-cost analysis showed substantial financial savings for the MBPBS group. This study suggests that MBPBS may be a viable training program for caregivers who provide services to individuals with intellectual and developmental disabilities.
Esther I. de Bruin - Preliminary effects of the Mindful2Work training; a combination of physical exercise, yoga, and mindfulness meditations in employees with burn-out related symptoms
(Esther I. de Bruin, Anne R. Formsma, Gerard Frijstein, & Susan M. Bögels)

Abstract:
Experienced stress in the Western society is high and the associated societal and emotional costs are extremely high. Mindfulness meditation, yoga and physical exercise have all shown beneficial effects for burn-out related symptoms. This study assessed the feasibility, acceptability, and preliminary effects of the newly developed Mindful2Work training, a six weekly group session training plus a follow-up session, consisting of the combination of physical exercise, yoga, and mindfulness meditations. Method. Quantitative primary outcome measure was workability. Secondary outcome measures were anxiety, depression, stress, and somatic stress, sleep quality, and positive as well as negative affect. Participants (n = 26) were suffering from (work related) stress and burn-out complaints and measurements were taken at pre-test, post-test, six weeks follow-up (FU1) and at six months after the start of the training (FU2). Results. Results showed very high feasibility and acceptability of the Mindful2Work training. Significant overall improvements with (very) large effect sizes of workability were demonstrated. Risk for long term drop-out from work was 92% at pre-test, reduced to 67% at post-test, to 44% at FU1, and 35% at FU2. Significant overall improvements with (very) large effect sizes were further found for all outcome measures at both follow-ups. Most effects seemed to grow even larger over time. Discussion. Summarized, the newly developed Mindful2Work training seems very feasible, and acceptable, and although no control group was included and power was limited due to small sample size, the very large effects of this training are highly promising.

Symposium 21: Mindfulness for teachers
Chair: A. Giannandrea

Kristian Hudson - Mindfulness as an intervention for school teacher stress and well-being: A mixed methods pilot study
(Siobhan Hugh-Jones, Kristian Hudson)

Abstract:
Introduction: Existing models of change following mindfulness interventions (MIs) point to differences in the way that people in distinct professions engage in, and benefit from MIs. Work with teachers is less well developed than models of change with healthcare professionals. Although school teachers’ stress, anxiety and depression as well as dispositional mindfulness, self-compassion and emotional regulation skills can all be positively affected by participation in MIs, we know little of how teachers come to experience personal and teaching related benefits. Method: Using a pre-post-test design, combined with post-intervention interviews, we explored school teacher outcomes from an MI and their subjective accounts of how positive benefits emerged. In particular, we examined how participation in an MI facilitated more positive teacher-student interactions in the classroom. Twenty school teachers engaged in an MI tailored for teachers, some of whom were self-referred and others school-referred to the intervention. A random subset of eight teachers were interviewed post-intervention. Results: Significant post-intervention effects on wellbeing, stress and mindfulness were reported. Thematic analysis of the interview data suggested that the MI facilitated more acceptance, understanding and awareness of problems, emotions, coping styles and personal struggle. It supported greater valuing of themselves which in turn lead to more self-care. Greater capacity for emotional regulation and a theme of
'staying out of struggle’ also pointed towards a form of resilience. Discussion: Mindfulness as an intervention for stress may be particularly suited to school teachers as they found they could apply their newly learnt mindfulness skills to difficult everyday work situations as they occurred. Teachers’ readiness for change appeared to be an important influence on engagement and group dynamics with colleagues had a negative effect for some participants. Implications for future research are discussed.

Hee Jung Min - Pre-service and In-service Teachers’ Perceptions of Meditation and Contemplative Practitioners: Words and Images
(Hee Jung Min, Sung Hee Kim)
Abstract:
This study explores pre-service and in-service teachers’ perceptions of contemplative practices and determines characteristics they associated with meditation practitioners and contemplative practices in educational settings. Understanding teachers’ perceptions on meditation and contemplative practitioners is significant to improve contemplative education programs, as Draw-A-Scientist-Test (DAST) detected a stereotypic masculine image of a scientist among students and changed teachers’ approaches to teaching science (Chambers, 1983). 310 pre-service and in-service early-childhood-educators from five universities and four kindergartens in South Korea participated and wrote down three words related to meditation and drew a meditation practitioner and a classroom where students learn contemplative practices. We analyzed 930 words and 280 drawings using a constant comparison procedure and a frequency analysis. We identified five categories that pre-service and in-service teachers mentioned regarding meditation: 1) contemplative feelings including calmness, quietude, and relaxation, 2) contemplative tools including music and nature, 3) contemplative actions including thinking and breathing, 4) contemplative positions including closed-eyes and crossed-legs, and 5) contemplative practices including silence and yoga. We also detected a strongly stereotyped image of a calm and passive meditation practitioner who has a gender neutral face (39%), sits cross-legged (84%), be straightened up (83%), has closed eyes (85%), wears a smile (39%), and listens to meditative music or natural sounds (33%) in nature (35%). Drawings of a classroom showed the same passive image of a stereotyped meditating student. These stereotypic passive images of meditation practices indicate teachers' limitations and their needs for more diverse teacher-education programs including various teaching techniques for contemplative education.

Monica M. Jackman - Peace-ing it Together Mindfulness Program for Children
Abstract:
The Peace-ing it Together Mindfulness program uses hands-on play-based activities to teach children how to practice mindfulness with the goal of making the world better for others. The program includes games, songs and interactive modalities to teach children about mindfulness practice and how it can help them to embody kindness, compassion and gratitude. Children engage in activities to gain experiential knowledge of attention, awareness (internal and external), being present for others, non-judgment, and acting with an open heart to self and others. Clinical demonstrations and case studies illustrate the program curriculum and preliminary anecdotal outcomes.
Detlev Vogel - A Mindfulness-Based Training to Improve Teachers’ Social-Emotional Competence Fostering Student-Teacher Relationships
(Detlev Vogel, Cécile Tschopp)

Abstract:
Introduction: Several studies have shown the effects of mindfulness training on self-awareness, non-reactive orientation, and emotional regulation, which are aspects of social-emotional competence. Social-emotional competence is an important prerequisite for supportive student-teacher relationships and classroom management, which in turn have an important effect on students’ social-emotional development and academic success. This high importance of teachers’ social-emotional competence requires a training of these competencies already during teacher education. The specifically developed and field-tested mindfulness-based training of social-emotional competence for pre-service teachers contributes to this need. To assure the transfer of mindfulness into the classroom, two common methods were used besides mindfulness exercises: video-based situation analysis and imaginative situation analysis. The training (intervention) will be tested concerning several effects (see below).

Methods: In March 2016, 20 teacher education students will complete the training, which is based on a three-day workshop and two additional follow-up meetings. Data will be collected with a pre- and post-training questionnaire both as self-report and as assessment of their teaching supervisors. The data will be compared with two additional groups of teacher education students: a) students in a non-mindfulness-based social-emotional training (n=20) and, b) a control group (n=20).

Results: Based on theoretical considerations and previous research we expect to find an increase in mindfulness and social-emotional competence, which in turn positively affect supportive student-teacher relationships and effective classroom management.

Discussion: The brand-new results will be discussed concerning the benefit of the program and mindfulness in general for pre-service teachers as well as for the curricula of teacher education.

Symposium 22: Pedagogy in the MBIs: An international exploration
Chair: D. McCown & D. Reibel

A. Commellato & F. Giommi - Teaching Mindfulness in Italy
(Antonella Commellato, Fabio Giommi)

Abstract:
Introduction: To speak about the overall cultural traits of a country can be challenging. What is said from outside may appear stereotyped and preconceived. What is said from inside can recognize the most prominent traits manifest as part of a process of polarization: when one trait appears at an intensified level, the complementary quality may also appear enhanced. It is this deeper observation that brings value to those both inside and outside when considering pedagogical practice.

Method: First person observation, analysis, and reflection on adapting and amending the teaching styles for the MBIs as developed in English in the US and UK for Italian culture.

Results: Able to articulate requirements and recommendations for teaching practice in facing both poles of such cultural facts as the role and expression of emotions; attitudes towards daily practice, shifting levels of concentration, alertness and performance; misapprehensions embedded in language choices; popular misconceptions about practices (yoga); a kitsch cultural discourse about mindfulness that promotes psychological comfort at the expense of the fundamental intention of mindfulness to “turn towards” suffering. Examples range from
the enhanced need for emotional authenticity in the teacher as Italians are actually reserved in revealing their own vulnerability and suffering, to movement practices and even special lighting to improve energy and alertness at later hours.

Discussion: Differences between participant and teacher attitudes and affect in Italy and the “normative” ones described in literature and training from the US and UK may generate considerable soul-searching in dialogue.

**Simon Whitesman - Teaching Mindfulness in South Africa**  
*(Simon Whitesman, Christiaan Barnard)*

**Abstract:**

**Introduction:** Mindfulness-based approaches have been offered in South Africa for 17 years. Since the first MBSR program in 1998, there has been a considerable growth in the application, awareness of and research into mindfulness in this country, in keeping with similar trajectories internationally.

Despite the remarkable transition to a democratic dispensation in 1994 and the example of Nelson Mandela, South Africa remains a country in transition, fraught with deeply entrenched issues of racial polarization, disparities in wealth and a quadruple disease burden, including the highest rate of HIV and TB in the world.

**Method:** The challenges of introducing, teaching and training people in contemporary mindfulness are similar in many respects throughout the world. However, most of these offerings are situated in the developed world, and the unique challenges of introducing both standardized and adapted mindfulness-based interventions in a developing country are many and varied. The work and learning is ongoing; first person experience and reflection is combined with steps towards empirical research.

**Results:** Examples and reflections of challenges faced and some of the projects that are leading the way will be described. In addition, initial research into the effects of the first university-based training in MBI’s on the learners will be presented.

**Discussion:** Genuine progress in integrating mindfulness-based approaches into previously disadvantaged communities is in its early stages as cultural and linguistic adaptations, access to resources and pervasive trauma have to be navigated whilst retaining the integrity of the approach with contextual sensitivity.

**Diane (Dina) Wyshogrod - Teaching Mindfulness in Israel**

**Abstract:**

**Introduction:** If missiles are fired at Jerusalem and the air-raid sirens go off during class today, is there enough space in the shelter for my MBSR group? Can we get there in time before the rockets hit? This was reality during the summer of 2014. Fifty days of war, bringing suffering and destruction to people on both sides of the conflict. This was indeed the full catastrophe: Life, death, and everything in between: a true test of Mindfulness-Based Stress Reduction (MBSR).

**Method:** First person reporting and reflection on teaching in this challenging and rewarding context. Bringing MBSR to Israel has been a mindfulness practice in its own right, necessitating everything from making the appropriate cultural and linguistic translations, to straddling religious divides and accommodating cultural sensitivities, to teaching a practice of peace in a region at war.

**Results:** A way to make the MBSR classroom safe and nurturing for all is to hold fast to the curriculum with its clear, universalist approach. Holding fast, yes, while gently, embracing needs arising from the different religions, cultures, and backgrounds of the students.
Discussion: As teachers we’ll probably still make mistakes, serve the “wrong” raisins, say the wrong things. Being “right” isn’t necessarily the issue. If we own our doubts and mistakes with grace and humility, these moments of clumsiness might teach us all – teachers and students – to replace hubris with humility, condemnation with curiosity, and criticism with compassion towards ourselves and others.

Rebecca Crane - Training Mindfulness-Based Teachers in the UK

Abstract:
Introduction: Application of mindfulness-based approaches has grown rapidly in the UK, through the incorporation of Mindfulness-Based Cognitive Therapy (MBCT) into the NICE guidelines, and the rising interest in the use of mindfulness in education, health care, the workplace, and the criminal justice system prompted by the All Party Parliamentary Group on Mindfulness. The result is pressure to train more teachers quickly, but without risking dilution in standards.

Methods: There is a multiplicity of responsibilities associated with educational program development and delivery. This is perhaps one reason why, in the UK, leadership of the teacher training agenda has been strong within the university sector. From this vantage point, it has been possible to ensure that teacher training is grounded in the research evidence base, that the processes of teaching, learning, and assessment are systematically examined and researched, and that the needs of individual learners in their different contexts are responded to.

Results: The benefits of this evidence-based approach are that teaching and learning can extend outwards beyond mere technique to enable deep experiential and scholarly learning. The trainee teacher thus engages in a process of formation, a ‘coming into being’ as a member of the professional community of mindfulness-based teachers.

Discussion: Good teachers become leaders and ambassadors in the expanding field of mindfulness-based approaches. Their education must be commensurate with that standing. It must not only be about developing skills and knowledge, but must also be concerned with possibilities of transformation.

Symposium 23: Mindfulness: Assessment, 2nd Generation Interventions, and Practice
Chair: Domenico Scaringi

Peter Sedlmeier - Doing effective meditation research with experimental single-case designs and participants as collaborators

Abstract:
Especially in meditation research, single case experimental designs have several advantages over the commonly used cross-sectional group comparisons: they can effectively deal with small samples, can answer specific questions (e.g. about characteristic patterns over time), and can examine the impact of personality characteristics or situation dependent variables in detail. Such designs that also use randomization albeit not over persons but over time allow one to arrive at strong conclusions even with a small number of participants. They have already been employed sporadically in studies on the effects of meditation for special groups (Singh et al., 2011a, 2011b) but it seems that, so far, their true value for meditation research has not been recognized. Meanwhile there exist many data analysis techniques, including sound inference statistical methods, to quantify and evaluate effects in such designs and even summarize the results using special kinds of meta-analyses. It is argued that experimental single-case designs in meditation research are especially useful if participants are fully
involved in all research activities, serving as responsible collaborators instead of mere participants. This combined approach is illustrated on behalf of a 7-week meditation study with student participants that examined the relative effects of Vipassana techniques in the tradition of Mahasi Sayadaw. Participants were randomly assigned to different conditions including variations of multiple-baseline designs, alternating treatment designs and single-case interaction designs. They were fully involved in all matters relevant for the study. Central issues of this combined approach and selected results from the study will be presented.

**K. Plank & J. Stalnacke - Places of Mindfulness**  
*(Katarina Plank, Jacob Stålnecke)*

**Abstract:**
Mindfulness is often described as an internal body-mind practice aimed at inducing a particular state of mind. This paper will instead explore the external environment of mindfulness by asking: in what places do people experience or practice mindfulness? The paper is theoretically informed by the concepts of lived religion and material culture, as well as urban studies. Thus the paper aims at understanding what a material culture of mindfulness might look like? Are there specific places in urban areas that induce mindfulness? The presentation will be based on findings from an on-going pilot project Mindfulness in Gothenburg, with fieldwork carried out in February and March 2016. By using photo documentary methods, combined with interviews and mapping methods, individual informants are encouraged to document where they experience mindfulness. A first, preliminary analysis of this material will be presented at the conference, thus contributing to mindfulness research by using new methods and new data that can broaden the understanding of the role of mindfulness in everyday life.

**W. Van Gordon & E. Shonin - Second-Generation Mindfulness-Based Interventions: Current Research Directions**  
*(William Van Gordon, Edo Shonin)*

**Abstract:**
INTRODUCTION: A recent development in mindfulness research and practice has been the formulation and empirical evaluation of what have been termed second-generation mindfulness-based interventions (SG-MBIs). Compared to the first-generation of mindfulness-based interventions (FG-MBIs), SG-MBIs are more overtly spiritual in aspect, integrate a greater range of contemplative and meditative techniques, and typically explicitly include ethics as a component of mindfulness teaching. METHODS: The current paper explicates the key theoretical differences between FG-MBIs and SG-MBIs, reviews current research directions for SG-MBIs, and explores issues as part of their wider integration into applied psychological domains. RESULTS: Findings indicate that SG-MBIs may be a useful complement to the current portfolio of mindfulness-based interventions, and may have applications in healthcare, occupational, and educational settings. DISCUSSION: Although it appears that SG-MBIs have an important role to play in the wider assimilation of mindfulness-based approaches by Western society, there is a need for greater understanding as to their defining features, limitations, and the circumstances where the use of a SG-MBI rather than a FG-MBI is likely to be recommended.
**Symposium 24: Mindfulness: Experimental studies (2)**

*Chair: Federica Mauro*

**Naomi Fisher - What is being induced in mindfulness experiments? A systematic analysis of the components, composition and emphasis of mindfulness inductions**

Abstract:
What is being induced in mindfulness experiments? A systematic analysis of the components, composition and emphasis of “mindfulness inductions”

Introduction: Despite mounting evidence of the beneficial effects of mindfulness-based practices caution is required when attributing effects to mindfulness per se. Transparency in how mindfulness is operationalized is needed for the development of mindfulness research and to progress understanding of the mechanisms underlying positive effects. With the support of the authors of published experimental examinations of mindfulness this research deconstructs and describes over thirty mindful induction scripts. Method: Thirty-three lead authors of over fifty studies were identified and contacted based on a literature search using Boolean search terms ‘mindful’, ‘experiment’ and ‘induct’ (February 2014). The systematic analysis broadly follows a thematic analyses approach but differs in the focus on components and composition rather than themes.

Results: Scripts varied on length, context provided, suggested applications, the object and quality of awareness. Common components included use of rhetorical devices, “nature” analogy and present moment focus. Findings presented in a matrix of components and emphasis includes brief descriptions of aspects of mindfulness invited, experimental effects and to what effects were attributed.

Discussion: The study makes two important contributions to mindfulness research firstly by providing a methodology to operationalize aspects of mindfulness and study the mechanisms underlying the effects of mindfulness in experimental settings. Secondly the matrix enables greater understanding of previous research and identification of mechanisms of action for future research. The intention is to increase transparency in how mindfulness is described and applied.

**Mirjam Hartkamp - Mindfulness, Mental Flexibility and Well-being (Mirjam Hartkamp, Antonino Raffone, Henk Barendregt)**

In recent years mindfulness has received increased attention in both the clinical and empirical domain. While most studies focus on effects of mindfulness in the context of mental or behavioral impairment, the cognitive mechanisms underlying the cultivation of mindfulness are given relatively little attention. This study looked into the cognitive mechanisms that are possibly involved with mindfulness meditation training and related to its putative beneficial effects on mind and behaviour. More specifically, changes in cognitive performances related to flexibility were assessed following a 6 days intensive vipassana retreat and compared with an age-matched control.

41 participants that signed up for the intensive retreat formed the experimental group. The controls were recruited under first years psychology student at the Universit of Malta and employees of the city hall of Amsterdam. Participants were tested through 5 behavioral tasks (e.g. Stroop, task switching) presented to them on an iPad. In addition they were asked to fill in 2 questionnaires; FFMQ (mindfulness) and PFI (positive functioning).

The experimental group performance on average significantly faster and with higher cognitive flexibility during the post compared to the pre test. Also the questionnaires showed a significant increase in self reported mindfulness and well being. These questionairees however seemed to show only little correlation with the improvement in cognitive
functioning.

Yair Dor-Ziderman - Neurophenomenological correlates of dissolving the self-world boundary in skilled meditators
(Yair Dor-Ziderman, Yochai Ataria, Stephen Fulder, Abraham Goldstein, Aviva Berkovich-Ohana)
Abstract:
Introduction: Current neurocognitive conceptualizations of the ‘self’ point to a self continuously constructed and remade by particular and transient neural processes. In particular, processes specifying the self as an embodied subject and agent thus implementing a functional self/non-self distinction in perception, cognition and action, are poorly understood. The Buddhist view of the self as illusory in the sense of being a constructed habit, a certain mental content, but not a reality not only concurs with the scientific view, but also provides tried and trainable means of producing altered states of self in a controlled experimental setting.
Method: The experience of dissolving the sense of self-world boundary was explored, from both phenomenological and neuroscientific directions, in collaboration with a uniquely qualified meditation practitioner who volitionally produced, while being scanned by magnetoencephalography (MEG), three mental states characterized by a graded sense of boundaries (SB) experience.
Results: The phenomenological analysis yielded 9 categories of graded SB experience, while the MEG results indicated a corresponding regressive reduction of parietal beta oscillations localized to the temporo-parietal-junction, a region known to mediate the self-body unity; and to the posterior-medial-cortex, a central node in the self’s representational system. The results were partly validated in an independent group of ten long-term meditators.
Discussion: The study underscores the utility of using depth phenomenology and highly trained subjects for understanding the neuropsychological correlates of the experience of ‘one-ness’. The graded nature as well as trainable neural plasticity associated with these processes may hold clinical implications for populations with related pathologies.

Chris Noone - Improvements in Critical Thinking Performance Following Guided Mindfulness Meditation Depend on Need for Cognition and Open-mindedness
Abstract:
Introduction
Critical Thinking (CT) is recognised as an important higher-order cognitive process which involves successful evaluation and analysis of evidence and arguments. According to default interventionist dual-processing accounts, such responses require the intervention of executive function (EF) to interrupt automatic processing. While EF was recently shown to mediate the relationship between mindfulness and CT performance (Noone, Bunting, & Hogan, 2016), no study has examined this relationship in an experimental design.
Method: 65 participants took part in a mixed factorial experiment designed to investigate the effects of a guided mindfulness meditation and a guided sham meditation on EF and CT. Primary measures included the N-Back and Halpern Critical Thinking Assessment (HCTA). Secondary Measures included the Need for Cognition (NFC) Scale and the Actively Open-Minded Thinking (AOT) Scale. The state version of the Mindful Attention and Awareness Scale was employed as a manipulation check.
Results: 2x2 mixed ANOVAs showed no evidence for effects of time, group or their interaction on N-Back or HCTA performance. Furthermore, application of the PROCESS macro showed no evidence for indirect effects of group on HCTA performance through either state mindfulness
or N-Back performance. However, when NFC and AOT were controlled for, there was a significant effect of group on HCTA performance and each of these also moderated this effect.

Discussion: When thinking dispositions are controlled for, brief guided mindfulness meditation appears to facilitate CT and is most beneficial for those low in NFC and AOT. However, it is unclear whether EF is a mechanism underlying this relationship.

Symposium 25: Clinical applications of mindfulness in childhood ADHD and autism spectrum disorder
Chair: Esther I. de Bruin

Ramasamy Manikam - Samatha meditation training for students with Attention Deficit/Hyperactivity Disorder: Effects on active academic engagement and math performance
Abstract:
Teachers report that students with attention deficit/hyperactivity disorder (ADHD) who find it difficult to actively engage in academic instruction have poor academic outcomes. A recent study reported that providing Samatha meditation instruction and enabling students with ADHD to meditate between 20 to 30 mins prior to the first lesson each school day not only increases their academic engagement, but also their math performance during class tests. Using a quasi-experimental research design and a larger sample of students, we replicated the training procedures used in this study to assess the effects of Samatha meditation on active academic engagement and math performance of 5th grade students from a charter school. When compared to pre-Samatha meditation training, the Samatha meditation training resulted in statistically and academically meaningful increases in active academic engagement and math performance. These results replicated the findings of the earlier study and provided further proof-of-concept of the utility of Samatha meditation in this population. These results suggest that the Samatha meditation enables students with ADHD to better focus their attention on academic instruction, increase their awareness of their mind wandering during academic instruction, and to remember what they should be doing in the present moment.

Renee Meppelink - Meditation or medication? Mindfulness training versus medication in the treatment of childhood ADHD
(Renée Meppelink, Esther de Bruin, Susan Bögels)
Abstract:
Rationale: Attention-Deficit-Hyperactivity-Disorder (ADHD) is one of the most common childhood disorders, with a prevalence of 5% in the general population. Medication is often the treatment of choice, as it currently is most effective. However, medication takes only short-term effects, treatment adherence is often low and most importantly; medication has serious side effects. Therefore, there is a need for other psychological interventions for children and adolescents with ADHD. Mindfulness Training, based on Eastern meditation techniques, is emerging as a potentially effective training for children and adolescents with ADHD. Objective: The first aim of this study is to compare the effectiveness of Mindfulness Training to the effectiveness of methylphenidate in a RCT in children and adolescents with ADHD on measures of attention, hyperactivity/impulsivity. The second aim is to compare the cost-effectiveness of Mindfulness Training as compared to methylphenidate in children and adolescents with ADHD. Method: A multicentre RCT with two follow-up measurements will be used to measure the effects of Mindfulness Training versus the effects of methylphenidate. Participants will be children and adolescents of both sexes diagnosed with ADHD, referred to urban and rural (academic) treatment centres. Participants are between 9 and 18 years old.
total 150 participants will be included. The Mindfulness Training will be conducted in small groups, and consists of eight weekly 1.5 hour sessions. Parents will follow a parallel Mindful Parenting training. Short-acting methylphenidate will be administered individually and monitored by a child psychiatrist.

Carrie L. McPherson - Children with Asperger Syndrome use SOBER breathing space to control their aggressive behavior

Abstract:
Several methods have been used to assist children with Asperger syndrome to self-manage their anger and aggression, including cognitive behavioral strategies and soles of the feet mindfulness meditation. However, no technique works well with all such children and there is a need for investigation of alternative techniques. Four children with Asperger syndrome were taught to use SOBER breathing space as an informal mindfulness-based procedure to control their physical aggression in the family home. The SOBER breathing space requires the child to Stop and see with what is happening, Observe physical sensations and emotion regulation changes in the body, Breathe by deliberately bringing attention to the breath, Expand awareness of the situation and his or her response to the situation, and Respond (versus react) mindfully. Effects of the SOBER breathing space on anger and aggression were recorded in the family home and community outings, as well as generalization effects at school. In a multiple baseline design across subjects, the children showed they could control their anger and aggression, and to respond mindfully to the emotionally arousing situation instead of automatically reacting in an aggressive manner. Results showed the training effects generalized from home to school, without training in the school setting. In addition, the effects were maintained during the 1-year follow-up period. This study suggests that some children with Asperger syndrome may be able to successfully use the SOBER breathing space to control their aggressive behavior.

Anna Ridderinkhof - Mindfulness training for children with autism spectrum disorder and their parents
(Anna Ridderinkhof, Esther I. de Bruin, René Blom, Susan M. Bögels)

Abstract:
Introduction: Despite of the experienced burden by children with autism spectrum disorder (ASD) and their parents, almost no evidence-based training is available. Mindfulness based trainings might be beneficial. In this project we investigate MYmind, a mindfulness-based training developed for children with ASD, in combination with Mindful Parenting. Primary outcomes are previously described. This study investigated the secondary outcomes of attention, face and emotion recognition of children, and internalizing problems and stress of children and parents. Method: MYmind training consists of a nine week group-based mindfulness training plus a booster session after nine weeks, parallel with Mindful Parenting training. Fifty-seven children with ASD, fifty-five mothers, and thirty-three fathers participated in this study. Multi-informant questionnaires on attention, internalizing symptoms, and stress, and neuropsychological tests of attention, face and emotion recognition were completed pre-training, post-training and follow-up after the booster session. Results: Preliminary results show an increase in alerting, one of three attention networks, but no effect on orienting and executive control. Children's accuracy rate of face and emotion recognition did not improve, although reaction time improved for non-target trials. Children reported a decrease of internalizing problems, attention problems, and stress. Mothers reported a decrease in children's internalizing problems, but fathers and research assistants did not. Mothers', but not fathers', internalizing symptoms and stress decreased. Discussion:
This study suggests that children with ASD and their parents might benefit from MYmind with parallel Mindful Parenting. Possible explanations of mixed results on attention and internalizing symptoms will be discussed.

Symposium 26: Traditional understanding and contemporary applications of mindfulness, with a focus on Autism Spectrum Disorder

Chair: Yoon-Suk Hwang

Patrick Kearney - Genealogy of mindfulness
Abstract:
Introduction: “Mindfulness” translates “sati,” an ancient Indian word literally meaning “memory.” To be mindful is to remember one’s present experience. This presentation shows how the sati of the Buddha became the mindfulness of contemporary social science, and explores some implications of this journey for current research.
Method: The original meaning of mindfulness is extracted from the earliest layer of texts containing the Buddha’s teaching, by examining its use in a variety of contexts. This historical critical method is then applied to the evolution of the term in the twentieth century, in the transmission of a “religious” term to a social scientific construct.
Results: This project reveals how mindfulness has moved from being a unitary term located within a broader landscape of mutually supportive mental/emotional qualities, to a collective term that contains other qualities but exists in separation from them. This creates a clumsiness in the use of the term that makes a sophisticated understanding of the nature and function of mindfulness and other related qualities unnecessarily cumbersome.
Discussion: Transforming mindfulness from a unitary to a collective term blurs its essential characteristics and threatens to turn it into a floating signifier. This makes it difficult to apply mindfulness to a variety of circumstances. In contrast, returning mindfulness to its original meaning should allow for a more sophisticated approach to developing mindfulness-based programs adapted to the needs of different populations, and a more creative approach to reading the landmarks of the development of mindfulness in different populations.

Malcolm Huxter - Mindfulness and the Buddha’s ennobling eightfold path as therapy
Introduction: The way mindfulness is defined in contemporary psychology varies to how it is understood in Buddhism. According to Ven. Bhikkhu Bodhi, a one-line description of mindfulness is: “to remember to pay attention to what is occurring in one’s immediate experience with care and discernment” (according to Shapiro 2009, p. 556). This presentation will emphasise how that within Buddhism, mindfulness is connected to the context and overarching framework of the eightfold path. The term “noble” that usually prefaces the eightfold path, describes profoundly awakened realisations and impeccable behaviours that result from awakening. The relationships evident in the noble eightfold path can also be applied to the patterns evident in more basic human issues including psychological disorders and ways to work with these disorders. At this basic level the path could be described as ‘ennobling’ because, though not yet signifying profound realisations, the factors are nonetheless reducing the severity of suffering.

Yook-Suk Hwang - Mindfulness and Autism Spectrum Disorder: Direct and transactional effects
Abstract:
Introduction: Recent intervention studies have presented the successful application of mindfulness meditation practice for individuals with Developmental Disability (DD), including
Autism Spectrum Disorder (ASD), as evidenced by reductions in their behavioural (e.g., Singh et al., 2013), psychological (e.g., Spek, van Ham, & Nykleicke, 2013) and physical (e.g., Singh, Lancia, Myers, et al., 2014) issues. The growth in the applications of mindfulness intervention has encouraged a reappraisal of the fundamentals of mindfulness practice to ensure that the theoretical and practical foundations have been properly established to support any future expansion of the field of mindfulness studies (e.g., Gethin, 2011; Grossman, 2012; Williams & Kabat-Zinn, 2011).

Method: Responding to this call, we conducted a two-staged mindfulness intervention, training six mothers in mindfulness meditation based on our understanding of the Buddha’s concept of sati found in the collections of early Buddhist teachings (Stage 1), and a subsequent parent-implemented child mindfulness intervention (Stage 2). The goals of the Stage 1 intervention were to train mothers in mindfulness practice to a level of fluency in their everyday lives and train them to become mindfulness meditation teachers for their own children. The central goal of the Stage 2 intervention was to train children with ASD in mindfulness to the degree they could use mindfulness meditation to manage their own challenging behaviours.

Results and Discussion: The findings of this two-staged mindfulness intervention highlighted both direct and transactional effects of mindfulness practice. We will discuss the implications of future mindfulness intervention studies for individuals living with disability, including the importance and challenges of practice engagement.

Yoon-Suk Hwang - How mindfulness helps mothers of children with Autism Spectrum Disorder and challenging behaviour
(Yoon-Suk Hwang, Patrick Kearney)

Abstract:
Introduction: At the end of an 8-week mindfulness training for six mothers of children with Autism Spectrum Disorder (Stage 1), they reported increases in their levels of mindfulness (direct effects) and decreases in their children’s challenging behaviours (indirect effects). These findings raise three questions. What happened? How did it happen? And why did it happen? Symposium paper 4 addresses these questions.

Method: Six mothers communicated their individual meditation experience at home through a reflective diary, and their collective meditation experience at mindfulness training sessions through open discussions. Mothers’ experiences were transcribed for interpretive phenomenological analysis. In this paper, these experiences are analysed according to the phenomenological framework of the three universal characteristics of experience developed by the Buddha, refined through the later Theravada system of insight understandings (nana). All experience is subject to change (anicca), therefore unreliable (dukkha), and not belonging to the self (anatta). These characteristics provide an analytic framework that allows the practitioner to extract meaning from apparently unrelated meditation experiences.

Results and Discussion: The three characteristics represent a systematic analysis that allows individual meditative experiences to be filtered through an interpretative framework that allows the practitioner to make meaning from them, a meaning that helps to transform their lives in a positive direction. The results of this analysis will be discussed, along with implications for teaching and practising mindfulness.

Symposium 27: Mindfulness and Wellness
Chair: Monica Jackman

Charlotte Thaarup - An Integrated Mindfulness Approach to Disordered Eating and
Body-related Concerns
Abstract:
Introduction: This paper investigates the effectiveness of a Mindfulness program called 'Dear Body'. This research paper aims to fill a gap in the literature by reporting on the effects of an integrated, targeted, Mindfulness program for those with disordered eating and body-related concerns.
With obesity, stress and depression increasing in most Western cultures, Mindfulness offers a sound and comprehensive process for addressing these issues.
Method: The research program was conducted through a combination of quantitative and qualitative research. A series of standardized measures addressing stress levels, general psychological wellbeing, body appreciation, restraint ability, food cravings and self-compassion were used to establish the quantitative findings. The qualitative research was a mix of conversations, emails, written feedback immediately after the program and closed group Facebook community posts during and after the program.
Results: The quantitative measures showed participants having no underlying psychological issues, but insecurities and negative evaluations of their bodies. Post program showed a marked shift in the relationship with the body to a more connected and caring one. Qualitative comments formed five distinct themes: The power of using the term “Dear Body”; Mindful Eating resulting in more mindfulness practice; weight loss being a side effect of the program; increased inclination towards healthier food after program; and the usefulness in understanding the binge/diet cycle.
Discussion: Based on this early research study, mindfulness based interventions deliver results in relation to changing the relationship between body, eating and weight. However, more longitudinal and far reaching data is required to support these results.

Barbara Barcaccia - The impact of mindfulness facets on interpersonal and self-forgiveness
(Barbara Barcaccia, Roberto Baiocco, Fiorenzo Laghi, Susanna Pallini, Nicola Petrocchi)
Abstract:
Introduction: Reviews evidenced the benefits of forgiveness and self-forgiveness for psychophysical health. However, the relationship between these two constructs and mindfulness has not yet been explored. The present study examined the relationship between the different facets of mindfulness and both interpersonal and self-forgiveness. We also explored whether the impact of the different mindfulness facets on depression is distinctively mediated by interpersonal and self-forgiveness.
Method: 257 participants filled in the FFMQ (Five Facets Mindfulness Questionnaire), the TFS (Trait Forgivingness Scale), the FSCRS (Forms of Self-Criticising/Attacking & Self-Reassuring Scale), and the BDI (Beck Depression Inventory). Correlations, regression and mediation analyses with bootstrapping procedure were performed.
Results: Both self-reassuring and the disposition to forgive are positively correlated with all the FFMQ subscales. Self-reassuring and interpersonal forgiveness are positively correlated, showing how these two processes are intertwined. However, distinct patterns emerge from the regression analyses: only Non-judge and Non-react predict interpersonal forgiveness (TFS). Differently, only Non-judge, Observe and Act with Awareness predict the ability to be kind toward oneself and to forgive oneself. Moreover, only self-forgiveness, but not interpersonal forgiveness, mediates the impact of Non-judge on depression.
Discussion: Even though interpersonal forgiveness and self-forgiveness are positively correlated, different features of mindfulness distinctively affect these two types of forgiveness. In particular, only Non-judge predicts both interpersonal and self-forgiveness.
However, interestingly, the impact of Non-judge on depressive symptoms is solely mediated by self-forgiveness, and not by interpersonal forgiveness. This seems to highlight the role of self-related processes in explaining the impact of mindfulness on mental health.

**Gaia Bergamaschi - Yoga Therapy protocol with patients affected by dysbiosis: A pre-post randomized controlled study**  
(Gaia Bergamaschi, Giorgio Alfredo Spedicato, Stefano Poletti)  
Abstract:  
Introduction: The dysbiosis, a microbial imbalance of the intestinal flora can be described as a bio-psycho-social pathology, which might benefit from the new trends in the psychoneuroendocrin-immunology due to its dynamic interdependency with the enteric and autonomous nervous system, and to the gut-brain axis mechanism. Methods: the purposes of this article are to: (1) describe “YogaSattva”, a yoga therapy protocol in which yoganidra is associated with pranayama (breathing techniques) and asana (yoga postures); (2) examine the potential benefits of the protocol attended by a specific group of people affected by dysbiosis (n=14, 79% womens, age: 22-57 years) compared to a control group (n = 14, 50% womens, age: 22-57 years), both submitted to POMS, STAI-Y, FFMQ and BSI before the protocol started, during it and after it ended (total length: 8 weeks); (3) encourage new research efforts in yoga therapy protocols targeted to the dysbiosis, contributing to outcomes of the yogic protocols addressed to stress/anxiety/depression strictly correlated with the psychological symptoms of the dysbiosis. Results: From the repeated measures analysis of variance, it turned out the interaction between the specific subscale and the two groups had been statistically significant (p<.05) with reference to the total number of POMS subscales (tension/anxiety, depression, confusion, tiredness, total POMS index), and to two of the BSI subscales (interpersonal sensitivity and depression). Conclusion: The YogaSattva protocol improved the mood state and some of the disturbances tested by BSI of the sample from t1 to t3.

**Giorgia Arduino - Awareness in prison: Mindfulness and mental action method for development of wellbeing and resilience in environmental conditions of high stress**  
(Giorgia Arduino, Fabio Giommi, Alberto Bertolotti)  
Abstract:  
The project was carried out in the period between October 2014 and February 2015 at the penitentiary of Piacenza and affected a group of 11 detainees, selected on the basis of: • personal motivation to undertake the path (declared interest) • the presence of somatic symptoms of various kinds and entities (gastro-intestinal disorders, headaches, sleep disturbances) which did not find relief through traditional drug therapies.  
The program consisted of 8 meetings of three hours each, plus the follow-up after two months; the techniques used incorporate the "psycho-physical actions" Method (in the version of Ersov-Grebenkin) and "mindfulness" approach.  
Both approaches, experiential, are basically aimed at developing a more balanced and less reactive mental States regardless of the difficult instances through methods that are usable and effective even in everyday life intrawall.

**Symposium 28: Mindfulness-based interventions: MBCT**  
*Chair: Domenico Scaringi*  

**Graham Meadows - Mindfulness-Based Cognitive Therapy: A Summary and Reflections on a Decade of Translational Research from Melbourne, Australia**
Abstract:

Introduction: Mindfulness Based Cognitive Therapy (MBCT) was developed drawing on research around relapse and recurrence of depression. In the National Institutes of Health (NIH) model of development of clinical evidence, while MBCT has well developed evidence at stages 0-2 including repeated demonstration of efficacy in research clinic settings, work at stages 3-5 moving towards routine implementation and policy change is more limited

Method: As a mental health services research centre in Melbourne, Australia we began 12 years ago gaining our first MBCT-related research grant which provided pilot findings and for initial development of a local training program. We have worked since to add to NIH evidence levels 3-6 through a large, multi-site long-term pragmatic clinical study including health economic evaluation and application of modelling techniques to examine pragmatics of implementation of MBCT in varying settings.

Results: MBCT in this context leads typically to a 42% reduction in days spent in major depressive episodes over two years compared with controls. For mental healthcare, cost-utility analyses demonstrate ‘dominance’ (lower expense and improved outcomes) for secondary care referrals, making an especially strong case for funding, while cost-utility is acceptable across all care sectors. Simulation models indicate that a critical size of population for delivery of group MBCT is around 250,000 persons.

Discussion: We are now using these findings to advocate for policy change, through a submission regarding national health insurance provision for MBCT, and to assist in design of further translational research examining individual MBCT delivery and the role of long-term meditation practice.

Modi Alsubaie - Feasibility and acceptability of Mindfulness-based Cognitive Therapy in people with depression and vascular disorders: A randomized controlled trial

Abstract:

BACKGROUND: One third of the UK population has a long-term condition, including vascular disorders (e.g. heart conditions, stroke and hypertension) rising to two thirds in the over 65s (Department of Health, 2011). Depression occurs in 20% of people with vascular disorders (Moussavi et al., 2007), it can persist for years and predicts worse medical outcomes (Ormel et al., 1999). There is evidence that Mindfulness-Based Cognitive Therapy (MBCT) is effective in reducing depression and relapse rates (Kuyken et al., 2008, 2015; Segal et al., 2010). Regarding vascular disorders, of the very few studies using MBCT with heart conditions and hypertension (O'Doherty et al., 2015; van Son, Nyklíček, Pop, & Pouwer, 2011), they have shown positive effects on outcomes. Through the Heart and Living Mindfully project (HeLM), we aim to adapt the MBCT course for people with vascular disorders and depression. The feasibility study reported here was one of the HeLM project phases aimed at examining the feasibility and acceptability of adapted-MBCT for this population.

METHODS: 32 participants with depression and vascular disorders were randomized to adapted-MBCT plus Treatment as Usual (TAU) or Mindfulness-based stress reduction plus TAU or TAU alone. The participants completed a set of questionnaires at three time-points.

RESULTS: The results were encouraging in terms of attendance rate, time spent on home practice and participants’ feedback, with some challenges being raised in terms of recruiting people and dropouts.

CONCLUSIONS: The adapted-MBCT intervention appears to be feasible and acceptable for the participants, but some improvements will need to be considered in future trials.
Abstract:
How does Mindfulness Based Cognitive Therapy (MBCT) work? Its cognitive effects warrant study to better understand how it benefits patients. Mindfulness training has been purported to improve awareness, but domain specific studies of cognitive processes have not fully accounted for more global effects. Global workspace theory (GWT) helpfully describes how awareness works in an integrative model of cognition. The cognitive model of mindfulness based on GWT more clearly specifies the types of cognitive processes that may be impacted through mindfulness training, specifically MBCT training. It was hypothesised that following an 8-week MBCT program, participants would show improvements in perceptual stability, attentional resource allocation, working memory capacity and backward inhibition functions of the executive network.

A total of 112 participants (60 MBCT, 52 Control) have been assessed pre and post an MBCT program on a battery of neuropsychological measures of perception (Necker Cube), attention (attentional blink, AB), memory (AOSPAN) and executive function (shapes paradigm). These data are now being analysed using Profile Analysis (an extension of multivariate analysis of variance), which allows for the multiple dependencies of correlated variables. Significant interactions will be further clarified using univariate analysis of variance. Results will be presented.

Mindfulness trains awareness of cognitive processes and GWT specifies which of these processes are conscious and which are unconscious. Within GWT, only items that access the global workspace can become conscious. MBCT training may expand the global workspace predominantly through improved attentional learning - learning what to attend to.

Frances Shawyer - The mediating role of everyday mindfulness in the relationship between mindfulness practice and depressive relapse
(Simon Acott, Frances Shawyer, Graham Meadows, Joanne Enticott)

Abstract:
Introduction: In this study we examined whether mindfulness practice enhances everyday mindfulness to prevent depressive relapse. The first aim was to examine whether everyday mindfulness mediates a relationship between mindfulness practice and depressive relapse. If so, the second aim was to examine whether everyday mindfulness mediates relationships between formal and informal practice, respectively, and depressive relapse.

Method: The study was embedded in a randomised controlled trial comparing mindfulness-based cognitive therapy to an active control. Participants with a history of recurrent depression were randomised to MBCT (n = 102) or control (n = 101). Because 55% participants in the control group reported mindfulness practice, analyses were based on whether or not participants had engaged in some form of mindfulness practice, regardless of treatment group. Measurement time points were selected to establish an appropriate timeline to infer causal relationships. The predictor variable, mindfulness practice, was measured during the 8-week intervention period of the trial using a study-devised questionnaire. The mediator, everyday mindfulness, was measured using the Five-facet Mindfulness Questionnaire at the end of this 8-week period. Measurement of the outcome, depressive relapse, occurred at 12-months follow-up using the Composite International Diagnostic Interview 2.1.

Results: Informal, but not formal, mindfulness practice predicted reduced risk of depressive relapse at 12-months follow-up and this was mediated by everyday mindfulness.

Discussion: Mindfulness practices that can be readily translated into everyday life have potential to reduce the risk of depressive relapse through the development of everyday mindfulness.
A. Giannandrea - ADHD and mindfulness: evidence from a pilot study
(Raffaella Pagnanini, Alessandro Giannandrea)

Abstract:
Introduction: Research has shown that Cognitive Behavioral Therapy (CBT) may be effective for Attention Deficit and Hyperactivity Disorder in children and adult populations but little is known about the effectiveness of mindfulness meditation training (i.e. Mitchell et al., 2015; Cassone, 2015; Foisy et al., 2011; Bogel, 2012; Van der Oord et al., 2011; Krisanaprapornkit et al., 2010; Black et al., 2009; Smalley et al., 2009). Recent neuroscience studies suggest that mindfulness-based treatments can promote interesting changes on attentional system (Raffone e Srinivasan, 2009) especially on conflict attention (Tang et al., 2007), and preliminary findings suggest significant improvements in attentional processes for ADHD (Cassone, 2015). The present clinical trial was designed to assess the effect of the mindfulness-based treatment of ADHD children and their parents using neuropsychological and behavioral variables.

Method: Thirteen aged from 8 to 11 years old with ADHD combined or inattentive subtypes and five parents were enrolled in a feasibility study of an 8-week mindfulness training program. Results: The majority of participants completed the training and completed psychological questionnaires (CBCL, CPRS-L, CTRS-L, ASRS, PSI, MASC, CDI), mindfulness questionnaires (FFMQ, CAMM) and neuropsychological measures (ANT, WISC-III). Pre–post improvements in ADHD symptoms based on DSM-IV TR criteria and neuropsychological variables (ANT) referred to alerting (Accuracy), orienting (RTs) and conflict attention (RTs) were noted. Improvements in mindfulness and psychological symptoms were also observed.

Discussion: Mindfulness training is a feasible intervention in ADHD children and their parents and may improve behavioral and neurocognitive impairments strengthening self-regulation and attentional processes.

Amanda Brisebois - Managing Pain in Chronic Illness: Is there a role for mindfulness?

Abstract:
Patients with chronic illness often have significant chronic pain issues. In Edmonton, a non-cancer palliative care clinic has been instituted since 2013 in order to address symptom management in the last years of a patient’s life. This clinic focuses on mainly on patients with pulmonary, cardiac, hepatic, or renal disorders. Of the 120 patients seen to date, over 65% of them have had significant pain issues (pain scores of over 4 on a 10 point scale). Many of these patients were initiated on pharmacologic pain management, based on current pain management regimens in the literature. Thru evaluation of success of treatment (defined as a decrease of 2 points on the 10 point scale), it was determined that many patients did not respond well to medical therapy. Within the clinic, mindfulness principles were encouraged through mobile technology, internet based and local mindfulness resources. These principles were well received. A current study is underway to assess patient receptiveness to mindfulness and non pharmacologic intervention prior to medication initiation in patients with cirrhosis. Patient scores on the Opioid Risk Tool will also be recorded. Next steps will include solidifying new pain management guidelines in the cirrhosis population, with mindfulness and non-pharmacologic interventions as key initial interventions.
Eva Potharst - The Effects of the CARE for Teachers Program on Student Behavioral and Academic Development
(Joshua L. Brown, Patricia A. Jennings, Damira Rasheed, Sebrina Doyle, Jennifer L. Frank, Regin Tanler, Anna DeWeese, Mark T. Greenberg)

Abstract:
Introduction: MBIs have been shown to improve educational and developmental outcomes when delivered directly to teachers and students. However, impacts of teacher-focused MBIs on students have yet to be examined. This paper reports direct and moderating impacts from an RCT of CARE for Teachers on student outcomes.
Method: The sample: 5,200 students from 224 teachers’ classrooms in 36 diverse urban elementary schools. Teachers were randomly assigned within schools to CARE or wait-list control. CARE was delivered over 5 days with intersession phone coaching. Teachers completed a series of self-report measures at pre- and post-intervention. Classroom observations were conducted using CLASS. Teachers reported on consented students (regarding student-teacher relationship closeness and conflict, beliefs about student daily preparedness for school and home support for learning, academic motivation, engagement, and social skills.
Results: Two-level models (students/classrooms) estimating direct and moderating impacts. found students of CARE teachers had higher engagement at posttest than students of control group teachers (p = .038). Further, students in CARE classrooms (compared to control) had higher motivation if they had either lower home support for learning (p=.034) or had CARE teachers with lower initial distress tolerance (p=.002). Also, students in CARE classrooms were rated as having higher learning engagement with CARE teachers who had higher initial personal distress (p=.028). Finally, students in CARE classrooms (compared to control) had lower teacher-student conflict with CARE teachers who at pretest had lower observed classroom productivity (p=.039).
Discussions: Implications for teacher MBI will be discussed.

Katleen Van der Gucht - School-Based Prevention and Reduction of Depression in Adolescents: Exploring Moderators of Effects of Mindfulness Based Training
(Katleen Van der Gucht, Keisuke Takano, Peter Kuppens, Filip Raes)

Abstract:
Most of the studies on school-based mindfulness programs so far have predominantly been outcome-based to understand the efficacy and effectiveness of the programs. An essential step to wide-scale dissemination is to investigate moderators of intervention effectiveness. The present study aims to advance our knowledge on potential moderators. Based on theory and previous research we identified the following potential moderator variables: 1) severity of symptoms of depression at baseline, 2) gender, 3) age and 4) school-track.
The study uses data from two consecutive randomized controlled trials testing the effect of a school-based mindfulness program on symptoms of depression in adolescents (13-18 years) in secondary schools in Belgium. The pooled database included 605 students from 9 schools, including general education, vocational and technical schools. In each school parallel classes were randomized to the mindfulness condition or control condition (no intervention, students followed their regular school program). Data were collected one week before and one week after delivery of the training, as well as 6 months later. The moderation of training effect was tested longitudinally with a multilevel model across the three repeated measures and across condition. We found no moderation effects of gender, age, and school-track meaning that the training might work equally well for girls and boys, for younger and older students, and
across school-tracks. Six months after delivery of the training we found a marginally significant moderation effect for severity of symptoms of depression at baseline with greater decrease in symptoms for students with high levels of depression.

**Symposium 30: Mindfulness-based interventions 4**  
*Chair: Geetesh Nirban*

**Anna Friis - Kindness Matters: A RCT to increase self-compassion improves mood and HbA1c among diabetes patients**  
*(Anna Friis, Mr Malcolm Johnson, Richard Cutfield, Nathan Consedine)*

**Abstract:**
Introduction: Mood disorders among diabetes patients are common as well as being linked to poorer blood glucose control and increased complications. There is very limited evidence for psychological treatments that improve both mood and metabolic outcomes. Higher self-compassion has been associated with mental and physical health benefits in both healthy and chronically-ill populations and could be of benefit in this patient group.

Method: This study evaluated effects of a randomized, controlled 8-week mindful self-compassion (MSC) programme among Type 1 and Type 2 diabetes (n = 32) patients, relative to a waitlist control (n = 31). Measures of depressive symptoms, diabetes-specific distress and HbA1c were taken at Baseline (pre-intervention) at Week 8 (post-intervention), and at 3 months follow up.

Results: Repeated-measures ANCOVAs showed an effect of MSC training in reducing self-reported depression and diabetes-distress in the intervention group, with results maintained at 3 month follow-up. Notably, the MSC also had an effect on HbA1c; participants in MSC group recorded a decrease in HbA1c between Baseline and 3 month follow-up compared to the intervention group. Reductions were more pronounced among those whose HbA1c was higher at baseline.

Discussion: The initial findings show learning to be kinder to oneself (rather than harshly self-critical) may have both psychological and physiological benefits among diabetes patients.

**Tim Lomas - Under pressure: Piloting Mind-ARMY, a mindfulness-based intervention for at-risk male youth**  
*(T. Lomas, E. Garraway, C. Stanton, I. Ivzan)*

**Abstract:**
Introduction: Teenage boys are a source of considerable concern in society, with poorer health, educational and social outcomes than their female counterparts. Of particular concern are ‘at-risk’ adolescents, who by definition are liable to poorer outcomes.

Methods: This study piloted a new mindfulness-based intervention, created specifically for at-risk adolescent boys. This involved four weekly sessions, featuring mindfulness activities designed to engender emotional management skills. Eight participants aged 13-14 were recruited from a school in London. In-depth semi-structured qualitative interviews were conducted with participants before and after the intervention, and analysed using grounded theory.

Results: The data revealed an overarching theme of pressure, with participants facing three main intersecting forms of pressure, relating to school, growing up, and gender. The intervention was reported by participants as having had a positive effect, with mindfulness serving as a ‘pressure valve’ enabling participants to better deal with their negative emotions. Other positive outcomes included increased self-reported focus and attention, facilitating better performance in class.
Discussion: Overall, mindfulness has promise as an intervention for helping at-risk adolescent boys deal with the considerable pressures they face in life, though further research will be needed to explore its effectiveness further.

Paola Mamone - Mindfulness to promote the health of Aid Workers

Abstract:
In the vast literature on interventions in humanitarian emergencies, very little attention has been paid to the management of the emotions of humanitarian workers. These professionals and volunteers have to offer quick and effective solutions, in ungovernable and irremediable situations caused by wars, massacres, deportations, and mass emigrations.
In many European and international contexts special support is provided to rescuers, such as the formation of groups of psychosocial help and the intervention of professionals who are able to facilitate the processing of experiences related to post-traumatic reactions. (Seynaeve, 2001)
MBSR seems to be a treatment of choice because it offers the mental training needed to manage and maintain concentration, receptivity and vigilance - even in conditions of massive workloads, overwork and stress - and promotes the ability to establish interpersonal dynamics which are healthy and effective for good team building.
An examination of the existing literature reveals two types of possible benefit for aid workers from participation in MBSR courses: the first concerns the refinement of skills needed during interventions, and the second is the development of the necessary conditions for the processing of traumatic experiences deriving from interventions in situations of crisis.
The mechanisms, processes and effects of MBSR will be highlighted, and a draft protocol that combines the traditional MBSR course with special attention to the cultivation of healthy attitudes, will also be presented.

Helena Bjuhr - MBSR and Brahma Viharas for enhanced wellbeing
(Helena Bjuhr, Birgitta Johansson)

Abstract:
Introduction: People with an acquired brain injury often suffer from long-term symptoms with mental fatigue and emotional difficulties. Returning to work is a common problem and the quality of life decreases, due to less participation in social activities. Rumination, loss of functions and sensitivity to stress causes suffering. Depression, anxiety, emotional sensitivity and sleep disturbances occurs. Attending an MBSR program has shown to be beneficial for this group. A follow up program was therefore designed, based on practices known to enhance inner states of wellbeing, in Buddhist teachings named The Brahma -Viharas. The four inner states; compassion, metta/boundless friendliness, appreciative joy and equanimity were made the core elements of the program.
Method: A face-to-face group (11) and a live Internet group (10) followed an eight-month program, with group visits once a month and a daylong retreat. All had previously attended an MBSR program and were suffering from mental fatigue after an acquired brain injury.
Results: The assessments after the follow up program based showed a significant increase in self-compassion. A sustained positive effect on mental fatigue, depression and anxiety were found from baseline to after the program. No differences between the face-to-face group and the group who met live on internet were found.
Discussion: A program based on the Brahma-Viharas, improved compassion and the participants’ ability to handle difficulties and integrate mindfulness in their lives. It was possible, despite the fatigability to follow and benefit from the program in both a face-to-face and live on Internet group.
Symposium 31: Mindfulness and Education
Chair: Maria Napoli

Maria Napoli - Elementary School Children: The Attention Academy Program Practicing Mindfulness with the Four Step MAC Guide
(Maria Napoli, Jamie Valderamma, Tamara Rounds)
Abstract:
Children, unlike adults, are easily able to practice mindfulness as they more often live in the moment. As we grow, outside stimuli expectations and distractions increase. The Attention Academy Program for elementary school children focuses on weekly activities—breath, senses, movement and witnessing thoughts. Test of Attention for Children found that students increased selective attention. Test of Anxiety for Children found that students decreased anxiety. Findings encouraged exploration for a mindfulness guide that could be easily applied to everyday living. Working in higher education, college students reported unmanageable stress as a deterrent to their educational experience. Seeking an avenue to easily teach mindfulness, the “Four Step MAC Guide” was born. The four steps include: MINDFULLY—(1) Acknowledge (experience just as it is); (2) Attention (to breath, senses, body, instincts); (3) Accept without Judgment (the complete experience) and (4) Choose (to move forward). This guide is intended to focus students in the moment and bring their attention to the experience with conscious awareness in each step. Students practice breathing exercises that are learned in the classroom as they approach each experience. Repetitive practice of the Four Step MAC Guide helps students learn an easy applicable model to apply mindfulness to every day experiences. Frequently students report, “I now MAC my eating” “I MAC my stretch, an so on. These words are music to our ears!

Jamie Valderamma - Teaching Mindfulness: From High School Through College
Abstract:
The effective practice of mindfulness within the secondary and undergraduate level begins with the opportunity of exposing students to practice mindfulness as a component of their success both personally and professional across the life span. Arizona State University provides five undergraduate mindfulness courses to facilitate building a mindfulness foundation with students as they move forward in their education and community. The primary course, Stress Management Tools One, introduces the concept of mindfulness while learning the physiological and psychological actions of the stress response through core life issues of nutrition, exercise, relationships, environment and passion that can either contribute or contaminate the stress response. The foundational component of all classes is the Mindful Awareness Journal that guides the students using the “Four Step MAC Guide” to mindfully approach each situation through their 1) acknowledgment of, 2) attention to and 3) nonjudgmental acceptance of the experience and finally 4) choosing their experience that facilitates their response. Ultimately, research has shown that through this mindfulness application, student stress does not change but they are better able to manage stress. Students through their mindfulness practice acquire the tools to respond vs. react to life experiences. Students practice the “Four Step MAC Guide” and as a result of this mindfulness tool the program has seen an exponential growth in student enrollment with the foundational course educating over 1500 students per year. Stress Management One and follow up courses are growing rapidly across all majors, a true interdisciplinary tool for all.
Tamara Rounds - Mindfulness In and Beyond the Classroom

Abstract:
Mindfulness can pay big dividends in graduate school and beyond! Arizona State University, School of Social Work offers a five-course graduate Certificate, Assessment of Integrative Health Modalities. Students develop a mindfulness practice along with knowledge regarding whole person health. Faculty and students created an I Cloud platform that includes hundreds of pre-recorded mindfulness tracks produced from mindfulness leaders. Students are required to select recordings for their weekly practice. The various artists offer students different experiences and options to broaden and independently grow their mindfulness practice. Furthermore, graduate students facilitate a Mindfulness drop in class at the University Fitness Center. The Integrative Health Initiative goal is to create an opportunity for students to take what they are learning in the classroom and “pay it forward.” The drop-in mindfulness facilitation inspired faculty to broaden efforts beyond the classroom and examine wellness and retention for all students. Initiatives beyond the classroom include a requirement that all students in the College of Public Service and Community Solutions receive exposure to the benefits of Mindfulness. Each class will offer a mindful meditation and wellness activities with the goal of increasing attention, focus and calm. Participating in wellness activities throughout the semester will add to student overall whole person health. Faculty is planning to include a course in Mindfulness and Stress Management in all majors and disciplines. What does our research reflect? Students learn increase their ability to pay attention, decrease their stress response, facilitate instruction, and become more empathic and sensitive to others.

Symposium 32: Meditation as a burn-out syndrome prevention and treatment
Chair: Fabio Giommi

M. A. Balzola - Contemplative practice and health professionals: a single-centered, randomized pilot study on burn out and compassion
(Maria Antonietta Bàlzola, Anna Marconi, Stefano Poletti, Ramona Gatto)

Abstract:
Introduction: Mindfulness meditation benefits on both psychological and physiologic clinical areas has increased interests on its preventive effectiveness. This study aims at evaluating some effects of a compassion inspired mindfulness intervention with health professionals. Method: longitudinal, single centered, pre-post study. The study was conducted at the G. Salvini Hospital, Garbagnate Milanese, Milan, Italy. Subjects were 34 health professionals (nurses, health-workers, educators, social workers) operating in some territorial psychiatric services and were prospectively followed for 8 weeks between 2014 and 2015. State-Trait Anxiety Inventory, Beck Depression Inventory, Maslach Burnout Inventory, Five Facets of Mindfulness Questionnaire and the Professional Quality of Life Scale were handed out. Results: after the program participants presented significant decreased levels in the following aspects related to the previous scales: depression, rumination, both state-trait anxiety and worry. Discussion: the results suggest that the compassion inspired mindfulness interventions may have a beneficial effect on preventing burn-out syndrome, improving stress reactivity and coping strategies and reducing worry, rumination and consequently anxiety and depression symptomatologies through accepting, intentional mental presence.

Patrizia Gasparini - Mindfulness Based Stress Reduction Program with psychiatric health professionals: a pre-post controlled study
Abstract:
Introduction: considering many stressful aspects of health professionals (mainly physicians, nurses, psychologists and health-workers) we managed two MBSR groups (29 female, 10 male in total) evaluating some scales before and after the program. Control groups and follow-up are still in progress. Method: looking at the burn-out syndrome and the associated mood profile, a battery of the sequent questionnaires was used, all in the Italian version: Five Facets of Mindfulness, Profile of Mood States, Perceived Stress Scale (10 items version) and the Personal Meaning Profile. Results: among these scales a treatment-related specific effect emerged by the statistical analysis (performed using the nlme R package) between time1 e time2. In fact while no effect was found in the PSS, a weak effect came to light in the POMS Vigour and PMP Self-Acceptance subscales, whereas a strongly significant effect for all FFMQ subscales was found. Discussion: results shed light on the specific efficacy of the treatment on mindfulness-related items, not involving stress and mood aspects. What is strongly evident is the enhancement of vigour and self-acceptance, together with all mindfulness-related subscales, suggesting a strong impact of the MBSR program in this setting. If control and follow-up measures must still disclose effects specificity and time reliability, these results foster additional in-depth analysis and active-control comparisons. Finally, the relation of MBSR programs in these settings should be deepened in relation with burn-out syndrome with wide associated factors.

Stefano Benzoni - Mindfulness Based Stress Reduction Program with health professionals: a post pilot study

(Stefano Benzoni, Antonella Costantino, Giulia Frasson, Silvia Russo)

Abstract:
Introduction: between 2014 and 2016 the Child and Adolescent psychiatric Unit of Fondazione IRCCS Policlinico di Milano has coordinated a clinical program called MAPA (Migration and psychiatric emergences in Adolescence), funded by Regione Lombardia, aimed at improving clinical services and early interventions for the target population, network management of health professionals across city Hospitals, secondary prevention initiatives and training for professionals. The work with teenagers in acute, severe and multi-problematic psychiatric conditions has long time proven to be very demanding and challenging for all health professionals (whatever their role), but this is particularly true when the “ecological” conditions are tough. Shortage of professional resources, lack of appropriate spaces for hospitalization, recovery and consultation, tend to enhance the stress level of the team, making the individual burden evermore hard to cope. MAPA project has thus conducted MBSR protocols open to all interested health professionals within the existing network, with the cooperation of AIM (Associazione Italiana per la Mindfulness). Two full protocols have been conducted so far, involving 62 professionals (17 psychologist; 11 nurses; 14 child neuro-psychiatrist; 8 rehabilitation therapist; 2 adult psychiatrist, 5 pediatricians; 4 educators; 2 social assistants). A 30 items interview was administered 8 weeks after the end of the protocol, to investigate the overall perception of the protocol, its impact on the actual burden of stress, both in the approach with the patients and with other health professionals. The results are discussed.

Symposium 33: Meta-cognitive mechanisms in Mindfulness
Chair: Amit Bernstein

Amit Bernstein - Decentering in the process of cultivating mindfulness: An experience
**sampling study**  
(Amit Bernstein, Adi Shoham, Pavel Goldstein, Ravit Oren, David Spivak)

Abstract:  
Introduction: A limited body of research has attempted to intensively and prospectively map and model the processes of change that develop and transact over the course of learning and practicing mindfulness meditation and in daily living. Accordingly, we focused on the role(s) and salutary function(s) of mindfulness and decentering for emotional experience, in meditative states and daily living, over the course of mindfulness practice and development.  
Method: 52 experience-samples were collected from 82 meditation-naive adults from the general community. Digital experience samples were taken in daily living and meditative states, over the course of a 1-month, six-session, Mahasi-based mindfulness training intervention. Data were analyzed via time varying effect models (TVEM) and mixed-linear modeling (MLM) within a single-subject multiple-baseline experimental design.  
Results: First, over the course of the intervention, participants grew more mindful as well as decentered, in daily living and meditative states. Second, the association between mindfulness and decentering was significant in daily living, although the magnitude of this association was stronger in meditative states. Third, we observed the same contextualized pattern of relations between mindfulness and emotional -valence (happy > sad) and -arousal (calm > nervous). Finally, whereas decentering mediated the effect of mindfulness on reduced emotional arousal in meditative states, it did not similarly mediate the effect of mindfulness on positive emotional valence.  
Discussion: Findings illustrate the insights that may be gained about mindfulness mechanisms broadly and decentering specifically through study of mindfulness as a dynamic, contextualized developmental process over time.

**Thorsten Barnhofer - An investigation of the effects of brief mindfulness training on self-reported interoceptive awareness, the ability to decenter, and their role in the reduction of depressive symptoms**  
(Maria Fissler, Emilia Winnebeck, Matti Gaertner, Thorsten Barnhofer)

Abstract:  
Introduction: Mindfulness-based interventions for the prevention and treatment of depression are predicated on the idea that interoceptive awareness represents a crucial foundation for the cultivation of adaptive ways of responding to negative thoughts and mood states such as the ability to decenter. This talk will present data from a study that used a multi-dimensional self-report assessment of interoceptive awareness, including regulatory and belief-related aspects of the construct (Mehling et al., 2012), in order to characterize deficits in interoceptive awareness in depression, investigate whether a brief mindfulness training could reduce these deficits, and to test whether the training unfolds its beneficial effects through the above-described pathway.  
Method: Currently depressed patients (n = 67) were compared to healthy controls (n = 25), and then randomly allocated to receive either a brief training in mindfulness (per-protocol sample of n = 32) or an active control training (per-protocol sample of n = 28).  
Results: Patients showed significant deficits across a range of regulatory and belief-related aspects of interoceptive awareness, mindfulness training significantly increased regulatory and belief-related aspects of interoceptive awareness, and reductions in depressive symptoms were mediated through a serial pathway in which training-related increases in aspects of interoceptive awareness were positively associated with the ability to decenter, which in turn was associated with reduced symptoms of depression. Discussion: These results support the role of interoceptive awareness in facilitating adaptive responses to negative mood.
Liad Ruimi - Meta-Awareness of Attentional Bias
(Liad Ruimi, Ariel Zvielli, Yuval Hadash, Amit Bernstein)
Abstract:
Introduction: Meta-awareness – awareness of the processes occurring in consciousness – is an important component of mindfulness (Bernstein et al., 2015; Dahl et al., 2015). Here we focus on meta-awareness of biased attentional processing of emotional stimuli. Attentional bias has been implicated in the development and maintenance of various forms of psychopathology, and accordingly, a long-sought target of clinical interventions. We theorize that Meta-Awareness of Bias (MAB) may provide self-regulatory control of biased attention, and decouple the psychopathogenic effects of (typically un-monitored) bias on behavior. In the present study we aimed to: (a) test evidence of the capacity for MAB; (b) investigate associations between MAB and real-time expression of bias; and (c) test the theorized protective role of MAB in moderating the maladaptive effects of bias on smoking behavior.
Method: We developed a behavioral measure of MAB based on probe-caught sampling methods (e.g., Smallwood, McSpadden & Schooler, 2007) and signal detection theory. 80 daily smokers were randomized to either a meta-awareness condition (i.e., mindfulness induction) or control condition. We then measured attentional bias to smoking cues and MAB.
Results: We plan to present findings related to: (a) the capacity and nature of individual differences in MAB; (b) the associations between MAB and attentional bias; (c) and the degree to which MAB may change associations between attentional bias and bias-driven behaviors.
Discussion: We will discuss the implications of these methods and findings for advancing understanding of MAB, the potential role of MAB in mental health, and clinical interventions targeting meta-awareness and attentional biases.

Yuval Hadash - Experiential Self-Referential and Selfless Processing in Mindfulness and Mental Health
(Yuval Hadash, Reut Plonsker, David R. Vago, Amit Bernstein)
Abstract:
Introduction: We propose that Experiential Self-Referential Processing (ESRP) – the cognitive association of present moment subjective experience with the self – is an important meta-cognitive process underlying various forms of maladaptation. We theorize that mindfulness contributes to mental health by engendering Experiential Selfless Processing (ESLP) – processing present moment subjective experience without self-referentiality. To help advance understanding of these processes we aimed to develop an implicit, behavioral measure of ESRP and ESLP of fear, to experimentally validate this measure, and to test the relations between ESRP and ESLP of fear, mindfulness, and key psychobehavioral processes underlying (mal)adaptation.
Method: 138 adults were randomized to 1 of 3 conditions: control, meta-awareness with identification, or meta-awareness with disidentification. We then measured ESRP and ESLP of fear by experimentally eliciting a subjective experience of fear, while concurrently measuring participants’ cognitive association between her/himself and fear by means of the Single Experience & Self Implicit Association Test (SES-IAT).
Results: As predicted, we found preliminary experimental and correlational evidence suggesting the SES-IAT measures ESLP of fear and two forms of ESRP – identification with fear and negative self-referential evaluation of fear. Furthermore, we found evidence that ESRP and ESLP are associated with meta-awareness (a core process of mindfulness), as well as key psychobehavioral processes underlying maladaptation (intolerance of distress and fear, reactivity to thought content, anxiety symptoms).
Discussion: These findings indicate that the cognitive association of self with experience (i.e., ESRP) may be an important substrate of the sense of self, and an important determinant of mental health.

**Symposium 34: Mindfulness-based interventions: MBCT**
**Chair: Federica Mauro**

**Albert Chiesa - Specific effects of mindfulness based cognitive therapy for mood and anxiety disorders: results from two single-blind randomized-controlled trials**
(Alberto Chiesa, Vittoria Castagner, Fabio Giommi)

**Abstract:**
Introduction: Mindfulness-based cognitive therapy (MBCT) showed efficacy for currently depressed and anxious patients. However, most of available studies suffer from important methodological shortcomings, including the lack of adequate control groups. Two studies were aimed at comparing MBCT with a psycho-education control group designed to be structurally equivalent to the MBCT program but excluding the main putative “active ingredient” of MBCT (i.e., mindfulness meditation practice) for the treatment of patients with major depression (MD, study 1), as well as panic disorder (PD) and generalized anxiety disorder (GAD, study 2) who did not achieve remission following at least 8 weeks of antidepressant treatment.
Method: Study 1 - Out of 106 screened subjects, 43 were randomized to receive MBCT or psycho-education and were prospectively followed for 26 weeks. Study 2 – Out of 112 screened patients, 52 patients were randomized to receive MBCT or psycho-education and were prospectively followed for 26 weeks. Measures of depression, anxiety, mindfulness, worries and quality of life were investigated. All assessments were performed at baseline, 4, 8, 17 and 26-weeks.
Results: Study 1 - Both Hamilton Rating Scale for Depression and Beck Depression Inventory scores, as well as quality of life and mindfulness scores, showed higher improvements in the MBCT group than in the psycho-education group. Study 2 – Significantly higher decreases in anxiety and worry scores were observed in the MBCT group than in the psycho-education group.
Discussion: Although limited by small sample sizes, the results of these studies suggest the superiority of MBCT over psycho-education for non-remitted MD and anxious subjects

**Josefine L. Lilja - The effectiveness of Mindfulness Based Cognitive Therapy in Scandinavian Primary Health Care**
(Josefine L. Lilja, Clara Zelleroth, Ulf Axberg, Torsten Norlander)

**Abstract:**
Introduction: This study examined the effectiveness of mindfulness-based cognitive therapy (MBCT) in primary care for patients with recurrent depression (major depressive disorder: MDD). According to the World Health Organization (WHO), major depressive disorder (MDD) is now the leading cause of disease burden in middle- and high-income countries. Patients (N = 45) with two or more previous depressive episodes were recruited to participate in MBCT as a preventative intervention. Method: Using a benchmarking approach, self-report data was compared with data from a recent efficacy study. The methodology of the study is a rigorous but possible approach to assessing effectiveness when evidence-based UK protocols are transferred into the existing Scandinavian service delivery. In addition to reporting effect sizes, we also used person-centred approach to assess clinical significance on the Reliable Change Index (RCI). Results: Benchmarking analysis: all three outcome measures showed
comparable or larger effects from pre-test to post-test and were maintained across 14 months. The analysis revealed a moderate to large effect size pre- to post-treatment in reduced depressive symptoms, increased quality of life and level of mindfulness. In the 14-month follow-up, 84% of the participants were in remission. RCI analysis: Findings showed that 65% to 67% of participants in the clinical group improved, no individual worsened, and women showed a significantly greater improvement of depression and anxiety than men. Discussion: The overall result suggests that MBCT can be implemented successfully in Scandinavian primary health care as a preventive intervention for patients with recurrent depression and risk of MDD.

Samuel Wong - The effects of mindfulness-based cognitive therapy for chronic insomnia (MBCT-I): a randomized controlled trial
(WONG SYS, ZHANG DX, LI CKC, YIP BHK, LING YMC, LO SLC, WOO MSD, SUN YY, MA H, MAK WWS, GAO T, LEE T, WING YK)
Abstract:
Introduction: Group based Mindfulness Cognitive Behavioral Therapy (MBCT) is a potential treatment for chronic insomnia although results have been conflicting. This study aimed to evaluate the effectiveness of MBCT in treating adults with primary chronic insomnia in the community.
Methods: This was a single-blind randomized controlled trial with two study arms: the MBCT programme and a psycho-education control group (PEC) in 8 weeks. A total of 216 participants were recruited in Hong Kong. Outcome measures were collected at baseline, 2 months, 5 and 8 months after baseline assessment. The outcome measures were the scores of Insomnia Severity Index (ISI) (primary outcome) and outcomes measured by sleep diary (i.e. sleep onset latency, SOL; wake time after sleep onset, WASO; total sleep time, TST; sleep efficiency), as well as the Five Facet Mindfulness Questionnaire and health service utilization.
Results: The ISI scores, TST and sleep efficiency improved in both MBCT and PEC groups at 8 months. The ISI score was significantly lower in the MBCT group comparing to the PEC group at 2 months (percentage change was -21.29% and -14.19% respectively, p = 0.035). No statistically significant differences were seen at other time points between the two groups. Discussion: Improvements in insomnia severity, total sleep time and sleep efficiency were seen in both MBCT and PEC groups. The MBCT seems to have more beneficial effects than PEC in reducing insomnia severity level at immediate post intervention. Both MBCT and psycho-education may be beneficial to community residents with primary chronic insomnia.

Chloe Yu Chin - Mechanisms of Change in Mindfulness-Based Cognitive Therapy (MBCT) for Depression: A Latent Growth Curve Analysis and Cross-Lagged Panel Analysis
Abstract:
INTRODUCTION: Mindfulness-Based Cognitive Therapy (MBCT) has been validated as an efficacious psychological intervention for prevention of depression relapse. Yet, whether its positive effects can be extended to the treatment of acute depression is not yet fully confirmed. Besides, to date, few compelling researches address the mechanisms of change underlying MBCT’s effects. Most mechanism studies collected assessment only at two to three time points (pre- and post-intervention and follow-up) which do not address the temporal sequence which is necessary for the establishment of mechanisms of an intervention.
OBJECTIVE: This session-by-session repeated measures study of the MBCT aims to examine 1) the effectiveness of MBCT for patients with active depression; 2) the inter-relationships and
temporal sequence among the changes of three putative process factors, i.e. mindfulness, rumination and self-compassion, with depressive outcome over MBCT treatment, so as to evaluate their roles as potential mechanisms of MBCT for depression.

METHODS: A total of 113 patients who currently met the diagnosis of Major Depressive Disorder or Dysthymic Disorder received an 8-week MBCT. Patients were assessed at 10 time points across treatment, i.e. T0 (pre-group), T1-T8 (sessions 1 to 8), and T9 (3-month follow-up). Changes in depressive symptoms, mindfulness, rumination and self-compassion over MBCT were analyzed using latent growth curve modeling and cross-lagged panel analysis to examine their association and temporality.

RESULTS: Overall, significant changes in expected directions on all outcome and process factors (except reflection subscale of rumination) over MBCT were found. A significantly large pre-post effect size (Cohen’s d =1.69) was identified for reduction of depressive symptoms. Most of the treatment effects could be maintained after 3 months. Bivariate latent growth curve modeling confirmed significant associations between the slopes (rates of change) of the three putative process factors and depressive symptoms over MBCT. As for the cross-lagged panel analyses, four competing models of a 5-wave cross-lagged path model of MBCT for depression were tested. A reciprocal model was found between mindfulness and depressive symptoms. Change of self-compassion was found to precede change of depressive symptoms, while change of brooding (a subscale of rumination) followed change of depressive symptoms. Post-hoc modified models by adding indirect effect paths yielded satisfactory fit indexes for all models.

CONCLUSIONS: Findings of this study suggest that MBCT can be effective in the treatment of active depression. There are significant temporal associations between the rate of changes of the three putative process factors and depressive symptoms across MBCT. Results also indicated that a bi-directional and reciprocal model for changes of mindfulness and depressive symptoms. While change of rumination (brooding) is likely to be a result of change of depressive symptoms over MBCT, change of self-compassion is found to precede change of depressive symptoms, suggesting its role as a possible MBCT mechanism. Findings of this study fill in the existing knowledge gap about temporal ordering among various change systems in MBCT. Direction for further research in MBCT mechanisms is discussed in the context of strengths and limitations of this study.

Symposium 35: Mindfulness-based interventions for people with cancer

Chair: Anne Speckens

Anne Speckens – Mindfulness-Based Cancer Recovery (MBCR) versus Supportive Expressive Group Therapy (SET): evaluating mindfulness and social support as mediators.


Abstract:

Introduction: Despite growing evidence in support of mindfulness as an underlying mechanism of mindfulness-based interventions, it has been suggested that non-specific therapeutic factors, such as the experience of social support inherent in group interventions, may also contribute to its positive effects. In the present study, we examined whether change in mindfulness and/or social support mediated the effect of MBCR compared to an active control group (i.e. SET), on change in mood disturbance, stress symptoms and quality of life.

Method: A secondary analysis was conducted of a multi-site randomized clinical trial
investigating the impacts of MBCR and SET on breast cancer patients (MINDSET). We applied the causal steps approach with bootstrapping to test mediation, using pre- and post-intervention questionnaire data of patients who received a significant dose of MBCR (n = 69) or SET (n = 70) (i.e. ≥ 4 sessions).

Results: MBCR participants improved significantly more on mood disturbance, stress symptoms and social support, but not on quality of life or mindfulness, compared to SET participants. Increased social support mediated the effect of MBSR versus SET on mood disturbance and stress symptoms. Because there were no group differences on mindfulness and quality of life, no mediation analysis were performed on these variables.

Discussion: Findings showed that increased social support was related to more improvement in mood states and stress after MBCR compared to support groups. This suggests a more important role for social support in enhancing outcomes in MBCR than previously investigated. Possible explanations will be discussed.

M. P. J. Schellekens - Mindfulness-Based Stress Reduction (MBSR) compared with treatment as usual (TAU) for patients with lung cancer and their partners: a randomized controlled trial
(Melanie P. J. Schellekens, Desiree G. M. van den Hurk, Judith B. Prins, Johan Molema, A. Rogier T. Donders, Miep A. van der Drift, Anne E. M. Speckens)
Abstract:
Introduction: Lung cancer has a major impact on the psychological wellbeing of patients and their partners. Mindfulness-based interventions have shown to be effective in reducing distress in cancer patients. However, the vast majority of participants in RCTs so far were female, diagnosed with breast cancer and in the early stage of the disease. Only a few non-randomized studies examined the effects of MBSR in partners of cancer patients. Therefore, the present RCT examined the effectiveness of MBSR versus TAU in lung cancer patients and their partners.

Methods: A randomized controlled trial was conducted. Sixty-three lung cancer patients and 44 partners were randomised to MBSR or TAU. Assessments took place at baseline, post intervention and three-month follow-up. Primary outcome is psychological distress. Secondary outcomes include quality of life, caregiver appraisal, relationship quality and spirituality. Mindfulness skills, self-compassion, rumination and stress reaction were also assessed.

Results: Intention-to-treat analyses showed that lung cancer patients reported less psychological distress after MBSR versus TAU. Moreover, patients reported improvements in quality of life, mindfulness skills, self-compassion and rumination after MBSR versus TAU. No effects were found in partners on psychological distress or other outcome measures.

Discussion: Participation in MBSR reduces psychological distress in lung cancer patients but not in their partners. Possible explanations will be discussed. Given the growing evidence in cancer patients, mindfulness-based interventions should be provided at treatment centres for cancer.

Else Bisseling - Mindfulness-Based Stress Reduction (MBSR) for breast cancer patients: a mixed method study on the facilitating and hindering aspects of the time of enrolment.
(Else Bisseling, Ellen T. M. Jansen, Melanie P. J. Schellekens, Hanneke W. M. van Laarhoven, Judith B. Prins, Anne E. M. Speckens)
Abstract:
Introduction: Psychological distress is described to be highest at cancer diagnosis, heightened
in the first year of treatment and a predictor for psychological morbidity in the survivor phase. Research shows mindfulness-based interventions (MBIs) are effective in reducing psychological distress in breast cancer patients. However, patients receiving treatment are often excluded from these studies. Little is known about what would be the most suitable stage for breast cancer patients to participate in MBIs.

Method: A mixed methods pilot study was conducted. Questionnaires on psychological distress and quality of life were administered pre- and post MBSR (n = 64). Five focus groups and three individual interviews were conducted after MBSR participation. Qualitative data were analyzed with the constant comparative method in order to develop a grounded theory. Results: Participants reported improvements in psychological distress, quality of life and other outcomes after MBSR. Qualitative data showed women participating during their adjuvant treatment phase benefited greatly, facilitated by improved physical condition, improved mental resilience, and more openness towards therapy. Distance, missing sessions due to somatic treatment and condition, psychological resistance were hindering aspects in the early treatment phase. Nevertheless, when insecurity and distress levels were heightened, MBSR seemed to be helpful in coping with these barriers and distress.

Discussion: Our findings revealed that besides phase of treatment, psychological adjustment might be an equally important factor to take into account when indicating time of enrollment. This information might help patients and professionals in deciding about when to participate in MBSR.

Symposium 36: Care for teachers: Examining implementation, process, and outcomes of a mindfulness-based intervention in teacher professional development

Chair: Patricia Jennings

Patricia Jennings - The Effects of the CARE for Teachers Program on Teachers’ Wellbeing and Classroom Quality

(Patricia A. Jennings, Joshua L. Brown, Jennifer L. Frank, Sebrina Doyle, Yoonkyung Oh, Regin Tanler, Damira Rasheed, Anna DeWeese, Anthony A. DeMauro, Mark T. Greenberg)

Abstract:

Introduction: Investigations of mindfulness-based interventions (MBI) for teachers have demonstrated their effectiveness in reducing psychological distress and burnout, while increasing teachers’ efficacy and well-being. However, no empirical evidence exists to show MBIs have impact beyond the teacher’s personal experience. In 2012, IES funded the largest efficacy trial of a MBI to date to examine the impact of CARE for Teachers on teacher wellbeing and classroom quality.

Method: The study used a multi-site 3-level (students, teachers, schools) cluster RCT design with treatment assignment at level 2 (teachers) and schools serving as naturally occurring blocks. CARE was delivered to 224 teachers from 36 diverse urban elementary schools over 5 days over the course of 2-3 months with intersession phone coaching provided. At pre and post-intervention, teachers completed a battery of self-report measures. Classroom observations were conducted to code for elements of quality using the Classroom Assessment Scoring System (CLASS).

Results: HLM was used to analyze impact. CARE had significant positive effects on mindfulness (p=.002, d=.30), personal distress (p=.048, d=.18), and feelings of time-related stress (p=.019, d=.20). Participants’ emotion regulation improved, particularly a reduction in suppression (p=.027, d=.25). On classroom-level outcomes, CARE had significant positive direct effects on CLASS dimensions of positive climate (p=.022, d=.25), teacher sensitivity (p=.043, d=.24), and productivity (p=.051, d=.23). A significant positive effect on the emotional
support domain was observed \((p=0.041, d=0.23)\) and a positive trend found for classroom organization \((p=0.088, d=0.20)\). No effects were found on the instructional support domain.

Discussion: Implications for teacher preparation are addressed.

Joshua L. Brown

Deborah L. Schussler - Understanding Mindfulness from Teachers’ Perspectives: A Qualitative Investigation of the Impacts of CARE
Deborah L. Schussler, Anna DeWeese, Damira Rasheed, Anthony A. DeMauro, Joshua L. Brown, Patricia A. Jennings

Abstract:
Introduction: This study uses qualitative interview data to examine the mechanisms underlying the intervention effects for teachers who participated in CARE. It addresses the following questions: 1) How do teachers with different levels of practice describe their distress tolerance, mindfulness, burnout, efficacy, compassion, and self-care? 2) Do teachers with patterns of higher sustained practice display more evidence of desirable outcomes (e.g., mindfulness, compassion) and less evidence of undesirable outcomes (e.g., burnout) than teachers who do not sustain CARE-related practice? 3) What relationships exist between the outcomes described?

Method: Twenty-eight teachers were purposively selected from the overall sample of 224 to achieve maximum variation sampling based on their self-reported sustained practice at four time points. One hour phone interviews were conducted fifteen months after the completion of the intervention. Using an explanatory design (McMillan, 2004), coders used the main outcomes from the quantitative measures as a basis for directed content analysis (Hsieh and Shannon 2005).

Results: Teachers with more sustained practice not only showed greater mindfulness, efficacy, self-care, and compassion, but their distress tolerance operated differently than those who did not maintain the practices. In addition, the importance of community and collegiality, a code that emerged during analysis, was more prevalent among those with greater practice.

Discussion: Revealing the teachers’ subjective experiences is necessary for understanding how the mechanisms of change of mindfulness-based PD function. Exploring outcomes of teachers with different levels of practices will provide insight into the sustainability of mindfulness-based PD beyond intervention activities.

Sebrina Doyle - Examining the effects of fidelity on participant outcomes: Measuring adherence to structure and facilitation skill in a mindfulness-based stress reduction program for teachers.
(Sebrina Doyle, Patricia A. Jennings, Anna DeWeese, Jennifer L. Frank, Joshua L. Brown, Regin Tanler, Damira Rasheed, Mark T. Greenberg)

Abstract:
Introduction: It has become increasingly important to demonstrate that evidence-based programs are being delivered with fidelity. Identifying core program elements allows for monitoring of fidelity to structure. Measurement of core facilitation skills needed to be confident in program delivery allows for monitoring of fidelity to process (Mobray et al, 2003). This paper reports on fidelity measurement from CARE program delivery to two cohorts during the 2012-2014 school years.

Method: From the randomly assigned sample of 226 teachers in 36 schools, data from 125 teachers who attended four different trainings was used for these analyses. Fidelity to structure (FS) and process (FP) were rated by observers during each session. A combined...
rating of process and structure was computed to examine overall training fidelity (TF). Participant outcomes were assessed through daily knowledge assessments and ratings of usefulness. Additionally, teachers completed a program evaluation on the last day.

Results: Preliminary analyses indicate that TF significantly predicted positive increases in teacher ratings of feelings of control over their time ($b=.31$, $t(88)=2.94$, $p<.01$) and ratings of student pro-social classroom behavior ($b=.34$, $t(88)=3.25$, $p<.01$). There was a marginally significant effect of FP on participants average ratings of usefulness of the training ($b=.18$, $t(88)=1.83$, $p=.07$). No relationship was found between FS and participant ratings, or between either FS or FP and participants' knowledge assessment scores.

Discussion: Fidelity measurement is an important part of any program evaluation. Use of fidelity data is vital to program improvement and ongoing facilitator training, as well as for understanding participant outcomes.

**Symposium 37: Mindfulness-based interventions: MBSR**

**Chair: Ramasamy Manikam**

**Steven Stanley - Constructing the mindful subject: reformulating experience through affective-discursive practice in Mindfulness-Based Stress Reduction**

(Steven Stanley & Charlotte Longden)

Abstract:

**Introduction**

This paper presents a critical psychological approach to the study of mindfulness as a situated social, cultural and historical practice.

**Method**

We combine discourse and conversation analysis of language use within mindfulness courses with attention to how subjectivity is collaboratively re-constructed moment-by-moment. Applying the concept of affective-discursive practice to the analysis allows attention to be paid to embodied meaning-making in terms of power, pattern and context.

**Results**

We illustrate practices of ‘inquiry’ through which mindfulness teachers initiate specific intersubjective procedures, especially reformulations of participant accounts of what they ‘noticed’ during meditation, which function to practically produce mindful subjects who can monitor, govern and take care of themselves.

**Discussion**

Mindful subjectivity is produced through the application of liberal power and negotiation of ideological dilemma within inquiry sequences, functioning as technologies of the self.

**Shu-Yu Kuo - Mindfulness and changes in anxiety and depressive symptoms among middle age community sample in Taiwan**

(Shu-Yu Kuo, Yi-Hung Liu)

Abstract:

**Introduction:** Mindfulness training has strong evidence among western population, but less is known among middle-age sample in Taiwan on the effect of reducing anxiety and depressive symptoms. This study is aimed to examine the effectiveness of a mindfulness-based stress reduction (MBSR) program in reducing anxiety and depressive symptoms in middle-age adults.

**Methods:** A single-arm quasi-experimental study using a repeated-measures design was conducted. Studied subjects were participants ($n=11$) in a 8-week MBSR program provided at suburban community. Anxiety and depressive symptoms were assessed using the State-Trait
Anxiety Inventory and the Center for Epidemiologic Studies Depression Scale, respectively. A structured questionnaire was used to measure the mindful awareness.

Results: The mean age of participants was 43.9 years (SD 6.5). The subjects who received 8-week MBSR training had significant reduced their anxiety symptoms (mean difference= 9, p<0.05) and depressive symptoms (mean difference= 8.8, p<0.05). Most study participants reported a significant improvement in mindful awareness.

Discussions: Mindfulness-based stress reduction program is an effective training for reducing anxiety and depressive symptoms and increasing mindful awareness in community sample in Taiwan.

Lori Gray - The Experience of Being Well: Exploring the Effects of Mindfulness-Based Stress Reduction Training on Participants’ Self-Perception of Health and Wellness

Abstract:
There is growing global interest in mindfulness training to relieve stress and cope with medical conditions. While over thirty years of research suggests that Mindfulness-Based Stress Reduction can accomplish these objectives, what more can be learned and applied from the direct experience of MBSR training? The rationale of this research was to confirm the reported results of outcome research for MBSR and further explore self-reported positive impacts on sense of well-being from the participants’ point of view.

Several quantitative surveys were administered pre and post MBSR training. Open-ended questions explored areas of high stress and concern. Post survey questions invited an exploration of what participants perceived as the significant personal impacts they attributed to MBSR training. 55 participants completed the pre and post surveys. Surveys were administered a year later to a total of 10 participants who participated in telephone interviews.

Results suggest reduction in physical symptoms, increase in self-compassion, reduction in perceived stress, and increase in self-awareness. Open-ended questions revealed themes of feeling connected to loved ones, more patience with strangers in times of stress, higher functioning in work relationships and a sense of “interconnection” with others. Participants expressed feeling deeper trust and less fear of life’s uncertainties. The self-reported impact remained strong in those interviewed who maintained a regular mindfulness practice; the impact was reduced in those who had discontinued home practice.

These results suggest that MBSR may serve as a protocol for enhancing relationships, cultivating resiliency and strengthening emotional intelligence, thus promoting strengths across dimensions of well-being.

Chetak Nangare - A Study of the Efficacy of MBSR on Relaxation States as well as Maternal-Fetal Attachment of Pregnant Women

Abstract:
The present study was conducted to investigate the efficacy of a technique of Mindfulness Based Stress Reduction programme on increasing the maternal-fetal attachment and relaxation states among pregnant women. 20 women, in the second trimester of pregnancy were randomly assigned to two groups, 10 in the experimental and 10 in control group. All the participants were in the age group of 22 to 28 years and resided in the rural areas around the city of Pune, India. Both the groups completed two questionnaires: The Maternal Fetal Attachment Scale by Cranley (1981) and Smith’s Relaxation States Inventory (Smith, 2001).

The experimental group underwent 15 sessions of MBSR, each of one and half hour duration, over a period of two month. This technique consists of systematic body scan, sitting meditation, awareness of breath and loving and kindness meditation. The Mann-Whitney U
test revealed that after the intervention the experimental group was significantly higher than the control group on maternal-fetal attachment (U 2.00, p< .01) as well as on all the sub-scales of the relaxation states inventory. Results were discussed along with some of the qualitative findings of the study. The experimental and control group consisted of only 10 participants each. As the sample size is considered small, it becomes difficult to generalise the results to the overall population.

Symposium 38: Mindfulness in a Broader Context

Chair: Domenico Scaringi

FSam Alibrando: Finding the balance of Power, Heart and Mindfulness

Abstract:
Theoretical Basis: Based on his up-coming book (being published by Career Press in July 2016. Working Title: The Three Dimensions of Emotion: Finding the Balance of Power, Heart and Mindfulness), Dr. Alibrando will present the Interpersonal Triangle, his theoretical model based on the work of Karen Horney and Wilfred Bion describing the three dimensions in which human relatedness takes place designated as: Power (y-axis), Heart (x-axis) and Mindfulness (z-axis). After the model is introduced, the presenter will explore mindfulness in relation to the other two dimensions—Power (agency, aggression, divergence) and Heart (love, compassion and convergence). The following ideas would be included in the discussion: 1. How without mindfulness “power” can become abusive and “heart” can become weakness. 2. How and why Mindfulness is the master dimension for reason stated in #1 and is the key to future evolution of human society. 3. However, mindfulness is also corrected by the need for personal agency (power) and compassion (heart). And if time allows: 4. When is aggression okay? 5. Can we love too much? 6. Empirical support for the three dimensions.
Clinical: Examples of how to use the Interpersonal Triangle model to bring us from a (limbic) reactive state in to a responsive (prefrontal cortex) state will be presented using either an example from Dr. Alibrando’s clinical practice or from his organizational consulting practice.

Laura Martin: Mindfulness versus Jungian Active Imagination: Two Techniques for Achieving Contentment

Abstract:
Introduction: Amongst the early practitioners of psychotherapy, CG Jung stood out due to his fascination with Eastern thought: he was instrumental in bringing both the I Ching and The Secret of the Golden Flower to the West. Here he found resonance with his own ideas as a psychotherapist. The two systems of thought seem initially quite opposed: whereas Mindfulness teaches the practitioner to focus on the breath and to stay concentrated on the present, calming any thoughts, images and feelings that may arise, Jung’s technique of Active Imagination involves actually engaging figures from remembered sleep-dreams in imaginary conversation. In Buddhism, allowing mental processes to come more or less to rest relativizes the ego, the personal story. Seemingly conversely, rather than diminishing the ego, Jung sought to strengthen the ‘ego-Self axis’ as the path to oneness with Self /Atman. But perhaps these are ‘two ways up the same mountain’?
Methods:
This paper is a comparative study of Jung’s technique of Active Imagination and Buddhist teachings on Mindfulness. Textual and oral teachings on and descriptions of each method, as well as the experience of the author, will form the basis of the study. The approach is theoretical and practical.
Results:
Although the two forms of meditation require widely different techniques, in the end, both can lead to feelings of greater balance and connection with nature. They approach one another particularly closely in the techniques of Mindfulness of Sleep and Dream (Lucid Dreaming).

Discussion:
As Mindfulness becomes more assimilated into Western cultures, it may be useful to remember this Western meditative tradition, as it may provide for some a more congenial way to explore mindful acceptance in conjunction with the individual creative drive.

Massimo Tomassini: Experience and Self-Awareness in Social Life: Hints for the Direction of Awareness-Oriented Groups

Abstract:
Introduction
The paper is aimed at discussing issues which are relevant for the building up of a conceptual framework of interventions, named as "awareness-oriented groups" (AOSs), to be implemented in different social life contexts. Such interventions should be addressed to small groups (temporarily formed for specific AOS interventions) composed by people coming from the same or analogous backgrounds/environments and interested in following personal development paths. The group activities should be articulated into two parallel (autonomous but mutually reinforcing) strands: contemplation - based on a vipassana approach - and awareness - through the sharing of cognitive and emotional contents within a phenomenological perspective.

The paper will discuss the meanings of experience and self-awareness, as crucial constructs that necessarily come into play in AOSs as they hinge on the experiential dimension at both the first-person and the second person level.

Method
The paper will inquire the concepts of experience and self-awareness in a limited set of Buddhist, phenomenological and sociological approaches, in close relation with other important conceptual constructs such as: mindfulness, awareness, consciousness, mind, selfhood, subjectivity, identity, reflexivity.

Results
The expected results will be mostly of a theoretical nature but geared to providing practical indications for the design and direction of AOSs.

Discussion
The paper will be articulated into different sections, dealing with:
• a phenomenological-existential approach to groups;
• homologies and differences between Buddhist meditation and the phenomenological epoché-based process;
• the relationships between experience, self-awareness and social behaviors within "life worlds";
• the neurophenomenological interplay of body-mind-world;
• experience and self-awareness as bases of individual reflexivity, identity and "agentic" conducts;
• hints from the above issues for the design and direction of AOSs.

Symposium 39: Mindfulness at Work
Chair: Federica Mauro
**Antonio T. Fernando - Compassion in medicine: does mindfulness have a role?**
*(Antonio T Fernando, Nathan S Consedine)*

**Abstract:**
Introduction: Compassion, which involves empathy plus the additional step of wanting to help, is an expectation in the practice of medicine. However, most of the research the past decade on medical compassion has focused on compassion fatigue, a type of clinical burnout. Focusing on compassion fatigue does not elucidate the phenomenon of physician compassion.

Method: We have conducted several cross sectional and experimental studies to examine barriers and possible facilitators for medical compassion. Studies include the development of barriers to physician compassion questionnaire, a cross sectional study of barriers to compassion among 1400 New Zealand doctors and nurses, effects of patient presentation and environmental interruption on compassion and effects of brief mindfulness induction on medical student compassion.

Results: The Barriers to Physician Compassion Questionnaire is a valid tool for assessing medical compassion. Four barriers to compassion have been identified. Physician specialty and nature of clinical practice affect medical compassion. Negatively presenting patients and environmental interruptions mitigate clinical compassion. A brief mindfulness induction exercise appear to enhance compassion among certain medical students.

Discussion: The Transactional Model for Physician Compassion suggests that physician, patient, external environment and clinical factors affect medical compassion. Specialization, age of the doctor and like-ability of the patient affects compassion. Certain aspects of medical training may enhance compassion. Mindfulness has potential in enhancing medical compassion.

**Larissa Bartlett - A pilot randomized controlled trial using self-reports and informants to assess acceptability, feasibility and efficacy of a five-week workplace mindfulness program for public sector employees.**
*(Larissa Bartlett, Kristy Sanderson, Petr Otahal)*

**Abstract:**
Introduction: While mindfulness training appears to be efficacious at reducing stress and distress, little is known about whether it leads to observable changes in stress-related behaviours, or its appropriateness for a large and distributed public sector workforce. This study evaluated a pilot five-week Mindfulness at Work Program (MaWP) for acceptability, feasibility, efficacy and observable changes in stress and related health, wellbeing and productivity for public sector employees.

Method: A parallel group randomized controlled trial compared the MaWP intervention (n=20) with an information-only control (n=100). Exploratory qualitative and quantitative methods were used to assess changes observed by informants (n=63) and to validate self-report findings.

Results: Results indicated a high degree of acceptability for the MaWP, although location and inflexible work schedules presented obstacles to feasibility. Compared with the control, the primary outcome of mindfulness improved significantly for MaWP participants (d=0.57, p<0.001) as did perceived stress (d=0.97, p<0.001), distress (d=0.61, p<0.001) and quality of life (d=0.51, p=0.002). Sleep, social functioning, job-stress and productivity all improved although not to the same magnitude. All secondary outcomes were at least partly mediated by changes in mindfulness. Informants reported a positive observable change in stress and emotional regulation following the intervention.

Discussion: The MaWP pilot was shown to have potential merit as a workplace intervention for public sector employees. Obtaining informant observations was feasible and while
Qualitative analyses indicated consistent positive changes and supported self-reported outcomes, quantitative analyses returned ambiguous results and further work is required to establish valid and scalable methods for assessing observable changes following mindfulness training.

**Sean H. Thompson - Mindful compassion for the health care worker**

**Abstract:**
Using the NIOSH (National Institute of Occupational Safety and Health) General Social Survey, "Quality of Work-life Questionnaire", we attempt to see a relationship between stress and the practice of mindful compassion meditation over a four week period. This is an initial study focusing on Practical Nurses, Registered Nurses, and Respiratory Therapist students in the Colorado area.

Results showing an overall statistical decrease in stress scores on the 'Quality of Work-life Questionnaire" over the four week period will be discussed and formats for further study will be outlined.

Implementation of a succinct protocol to support paraprofessionals in the workplace though mindfulness compassion practice (based on Metta meditation) can reduce individual stress response, adaptation and personal stress management to reduce burnout, work error and attrition.

**Moitree Banerjee - Facilitators and Hindrances of Engaging in a Self-help based Mindfulness Intervention: A qualitative study with NHS staff (Kate Cavanagh, Clara Struss)**

**Abstract:**
In order to increase the cost-efficiency, availability and ease of delivering mindfulness-based interventions (MBIs), clinical and research interest in mindfulness-based self-help (MBSH) interventions has proliferated over the years. Several studies have shown promising results of effectiveness of MBSH. However, like all self-help psychotherapies, drop-out rates and disengagement from MBSH is high. The current study aims to explore the facilitators and hindrances of engaging in a pure MBSH interventions.

Semi-structured interviews with members of NHS staff who took part in an MBSH intervention (n = 16) were conducted. A thematic analysis approach was used to derive central themes from the interviews.

Analyses resulted in four overarching themes characterising facilitation and hindrance of engagement in MBSH. These are: “Attitude towards Engagement”, “Intervention Characteristics”, “Process of Change” and “Perceived Consequences”. Long practices, emerging negative thoughts and becoming self-critical were classified as the key hindrances, while need for stress reduction techniques, short practices and increased sense of agency over thoughts were classified as the key facilitators. Clinical and research implications are discussed.

Symposium 40: Mindfulness-based interventions 5

**Chair: Geetesh Nirban**

**Rebecca Shankland - Improving mental health through integrated mindfulness practices**
(Rebecca Shankland, Lionel Strub, Damien Tessier, Sonia Pelissier, Marion Trousselard, Martial Mermillod)

**Abstract:**
Introduction: While applying Mindfulness Based Interventions (MBIs) in different settings in
France, it appeared that in non-clinical settings, formal practice rates were rather low. However, effects were observed in these studies and qualitative reports of participants underlined the preferential use of integrated mindfulness practices. Although formal practices may lead to greater levels of Mindfulness, we aimed at assessing the effectiveness of an intervention (FOVEA, 8 weeks, 2h/week) only based on integrated practices.

**Method**

Participants (95 FOVEA and 44 wait-list controls) completed the following self-report questionnaires online pre and post-intervention and 3 months after end of intervention: Perceived Stress, Anxiety and Depression, Satisfaction With Life (dependent variables), and Mindfulness (mediating variable). They also completed a daily practice diary.

**Results:** Relative to the wait-list control group, FOVEA participants showed significant reduced perceived stress, anxiety and depression, and increased satisfaction with life. These changes were completely mediated by increased Mindfulness and were maintained 3 months after end of program. Between 92% and 97% of the participants (according to the week considered) reported having practiced at least one of the proposed integrated practices.

**Discussion:** Results underline the potential benefits of an integrated practice program for the general population. Practice rates were high compared to other MBIs carried out by the same research team. These results suggest that this type of program could constitute a first step towards more formal practices once the motivation to practice has been sufficiently enhanced by the perceived benefits of the first intervention.

**Kathy Gruver - Methodology and Research Behind Therapeutic Component Choice for US Military Stress Reduction Program**

Abstract:

United States military struggles with enormously high rates of PTSD, suicide and addiction after release from service. Reaching these hard-working men and women with tools to help them before this occurs is the key to decreasing future mental illness and even death. When asked to head up a project to create and institute a stress reduction program for the military I scoured existing programs and existing research on what would be the most efficient, cost-effective and efficacious program to teach.

Investigating currently used phone apps and programs as well as written and oral curriculum provided me with a good base of what is and isn’t working in the current program. One of the stipulations was to make the new program shorter and less expensive than those already in existence.

I decided to make a tiered program so that learning one skill such as breath work led you to the next advanced skill such as mantra meditation. And this continues through the whole program incorporating 5 different skills/exercises.

At this point, phase 1 of the project we are presenting this to the military for review and look forward to stage 2 acceptance to start to test and incorporate this program with subjects.

In this presentation, I will discuss in depth the reasoning behind each of the added components, the supportive research and how they will work synergistically to lead enhanced coping methods for dealing with military and battle stresses.

**Maria Fiorella Gazale - The mindfulness practice in the Psychology Service in a Mental Health Hospital Department**

(Maria Fiorella Gazale, Rosanna D’Arrezzo, Elena Vegni)

Abstract:

Introduction: The experience of mindfulness proves to be a valuable tool in the therapeutic practice in psychology service within the mental health department of the ASST Santi Paolo e
According to Pollak, Pedulla and R. Siegel (2014), we can bring mindfulness into the mental health office both for personal practice and with patients. In our experience, it can be done in therapist’s personal practice, in individual EMDR psychotherapies, and in psychotherapy groups centered on mindfulness.

As far as the groups, from 2014 up to the present moment, small psychotherapy groups have been activated providing 8-week practice program with a modified protocol derived from the MBSR and Vipassana meditation (A. Chiesa, P. Malinowski 2011; C.Germer, R. Siegel 2012). A total of 40 patients referred by psychiatrists for anxiety, mood, personality disorders attended these groups.

Method: A personality assessment, including MMPI-2, was carried out with all patients at the beginning (T0). After the end of the program (T1) a new MMPI-2 was administered, jointly with a brief specific questionnaire with three closed and two open questions to assess appreciation and perceived relief.

The hypothesis was that the degree of openness increased and that the level of well-being and freedom from anxiety, anger, and low self-esteem improved after the path. The significance of variance was calculated (ANOVA), mainly taking in account the validity scales L, F, K and FB about the degree of openness and sincerity and the content scales ANX, DEP, OBS, ANG and LSE and Welsh additional scales A and R.

Results: Qualitative analysis of questionnaire has been carried on, finding a good appreciation and improved relations. Analysis of MMPI-2 results is ongoing.

Martina Testa - Mindfulness in alcohol-dependence relapse prevention: preliminary results from a controlled study
(Martina Testa, Mariagrazia Movalli, Pietro Ramella, Andrea Francesca Raimondo, Cesare Maffei)

Abstract:
Introduction: It is well established that mindfulness based programs are effective interventions in treatment of Substance Use Disorders (SUD). Several controlled studies supported the use of Mindfulness-Based Relapse Prevention (MBRP) in abstinence maintenance. This study aims to evaluate MBRP effects on alcohol-dependent patients, in comparison with an after-care control group (TAU), during a 8-weeks observation.

Methods: Emotion Dysregulation (ED) (DERS), Experiential Avoidance (EA) (AAQ-II), Mindfulness Disposition (MD) (MAAS), Mindfulness Skills (MS) (FFMQ), alcohol craving (AC) (PACS) dropouts and lapses were assessed. Consistent with the small sample size, non-parametric procedures were used (Mann-Whitney and Wilcoxon test). Effect sizes were estimated (r).

Results: Respectively, 20 and 19 subjects constituted MBRP and TAU groups. We observed significant and large improvement of ED, EA MD in MBRP group. Conversely, no significant differences were found in the previous dimensions among TAU patients. Moderate to large MS enhancement was found in both groups. We revealed no significant differences in patients’ AC during the MBRP program. On the other hand, a moderate increase of AC was observed in TAU patients. Eventually, MBRP and TAU groups showed same drop-out and lapse rates, even though a significant relationship between lapse and drop-out were observed exclusively in MBRP group.

Discussion: These preliminary results support the use of MBRP program in alcohol-dependence after-care. Future randomized controlled trails and follow-up studies are needed to evaluate the efficacy of MBRP program. Limitations of study will be discussed.
**Symposium 41: Measuring mindfulness**

*Chair: A. Giannandrea*

**Oleg Medvedev - Measuring Mindfulness: Rasch Approach**

(Oleg N. Medvedev, Richard J. Siegert, and Christian U. Krägeloh)

**Abstract:**

Introduction: Mindfulness has emerged as an important contributor to health and well-being, and its accurate assessment represents an on-going challenge. Rasch analysis is an advanced statistical method that provides a template to convert ordinal-level data to interval level, which improves precision of measurement, provided a measure is unidimensional.

Method: Rasch analyses were conducted to enhance the psychometric properties of the widely used measures of trait mindfulness, the Mindful Attention Awareness Scale (MAAS) and individual subscales of the Kentucky Inventory of Mindfulness Skills (KIMS) including Observing, Describing, Act with Awareness, and Accept Non-judgmentally using a variety of student and general population samples.

Results: Minor modifications such as rescoring disordered thresholds, removing misfitting items and combining locally dependent items into subtests were necessary to satisfy expectations of unidimensional Rasch model for the MAAS and the four KIMS subscales. The end product of these Rasch analyses are algorithms that allow researchers and clinicians to transform scores from an ordinal to an interval scale, thus rendering data suitable for parametric statistics and comparison with neurophysiological data without violating fundamental statistical assumptions.

Discussion: Practical application of modern Rasch strategies to improve individual item and scale functioning, deal with misfitting items, local dependency and differential item functioning (DIF) in unidimensional and multidimensional mindfulness measures will be discussed. Precision of the instruments can be improved substantially by several minor modifications to scoring algorithms without the need to modify the current response format.

**Vincenzo Cicconi - Dynamic multidimensional assessment and measurement of mindfulness**

(Vincent Cicconi, John Hattie, Terry Bowles)

**Abstract:**

Title: Dynamic multidimensional assessment and measurement of mindfulness.

Mindfulness-based meditation practices to reduce anxiety, stress and pain in people have been documented in over 2,700 published articles in the past ten years. This paper proposes a refined definition of mindfulness measurement from a systematic review of over 70 peer-reviewed studies utilizing traditional mindfulness-based meditation practices. Present study aims to improve the measurement of mindfulness characteristics research with potential benefits for clinical applications and scientific research. The objective is to validate a multifaceted tool based on Five Facet Multidimensional Questionnaire and Mindful Attention Awareness Scale for measuring the level of mindfulness traits in meditators and non-meditators and incorporating psycho-physiological markers such as heart rate, EMG, blood pressure and cortisol levels. Utilizing a control group methodology subjects the aim is to measure subjects repeatedly at various intervals with random allocation to mental tasks. Subjects will include those whose work involves concentration and sustained mental effort such as teachers and counselors. It proposed that SEM and Path modeling including analysis of variance will help investigate the contributions of different parts of the tool and factors.

Results: Although no data is yet currently available. A heuristic model will be presented. A
dynamic model is proposed that utilizes both self-report and physiological factors with effect sizes to measure mindfulness that is more accurate and sensitive to subjective and physical changes. The possible implications for further research measuring and comparing mindfulness interventions and practices will be discussed.

Ivan Nyklicek - The Tilburg Open Monitoring Awareness Test (TOMAT): Examination of its validity and usefulness

Abstract:
Introduction: The assessment of mindfulness facets is a matter of debate, especially regarding self-report instruments. Therefore, a test was developed and examined, based on moment-to-moment expression of open monitoring of momentary experience, without the use of stimulation: The Tilburg Open Monitoring Awareness Test (TOMAT).

Methods: The TOMAT was applied together with self-report questionnaires and brain activity (EEG) data in the following studies: 1. Correlational study involving 82 meditator and control participants, 2) Prospective study on 52 students for test-retest reliability, 3) Controlled intervention study of 72 MBSR participants and 29 controls.

Results: Adequate interrater and test-retest reliability of the test were found, while indices of construct validity were more difficult to interpret. TOMAT-derived indices of affective, interoceptive, and exteroceptive awareness correlated low or not at all with self-report measures of mindfulness skills and mood and did not change with MBSR participation (only momentary thinking decreased). Nevertheless, these indices discriminated between meditators and non-meditators and between vipassana and transcendental meditators. Also, the largest correlation with self-report and EEG variables was obtained between the number of days per week meditating and interoceptive awareness, but only in vipassana practitioners ($r = .54, p < .05$).

Discussion: The TOMAT seems to assess an aspect of momentary awareness that is not captured by self-report questionnaires. It seems to correlate with intensive longer term vipassana practice rather than with participation in MBSR. The test may therefore be more useful in research on longer term practice or intensive retreats.

James Walsh - Developing and testing a model of mindfulness based on necessary and unnecessary suffering
(Jaroslav J. Gerza, James J. Walsh)

Abstract:
Introduction: Hitherto, mindfulness has typically been defined as awareness of, and attention to, the present moment coupled with a non-judgmental, open and accepting stance. A different conceptualisation, based more closely on original Buddhist ideas, is proposed in the current study. Specifically, mindfulness is conceptualised as understanding and engaging with the manifold nature of suffering. Necessary suffering is distinguished from unnecessary suffering; the ability to engage with one's necessary suffering is the hallmark of mindfulness.

Methods: A new questionnaire measure called the Mindfulness as Suffering Scale (MASS) was developed to capture the essence of necessary suffering and was subjected to a principal components analysis (PCA). A correlational design facilitated the concurrent validation of the MASS by comparing scores with those of other measures of mindfulness such as the Comprehensive Inventory of Mindfulness Experiences (CHIME; Bergomi et al., 2013) and the Mindfulness Attention Awareness Scale (MAAS; Brown & Ryan, 2003). Tests of convergent and discriminant validity were carried out by examining the pattern of correlations between the new scale and questionnaire measures of conscientiousness, trait anxiety and rumination.

Results: The new scale proved to be reliable. It was found to correlate positively and
Discussion: Thinking about mindfulness in terms of necessary and unnecessary suffering constitutes a departure from most previous conceptualisations of the construct. The validation of a new measure of mindfulness based on such a conceptualisation provides an opportunity to test this model more thoroughly.

Symposium 42: Mindfulness and Ethics
Chair: Ramasamy Manikam

Tim Lomas - Re-contextualising mindfulness: Theravada Buddhist perspectives on the ethical and spiritual dimensions of awareness
Abstract:
Introduction: Although mindfulness has been embraced by the West, this has mostly been a secular ‘de-contextualised’ form of mindfulness, dis-embedded from its original Buddhist nexus of beliefs/practices. This has arguably deprived the practice of its potential to effect more radical psychospiritual development.
Methods: This presentation argues for the ‘re-contextualisation’ of mindfulness, drawing explicitly on Buddhist philosophy to enhance our appreciation of it, and offers a contribution to such re-contextualisation.
Results: The presentation presents a novel (in the context of Western psychology) theoretical model of mindfulness, drawing on concepts in Theravada Buddhist literature. In particular, it suggests that Buddhism identifies three main ‘forms’ of mindfulness: sati (awareness of the present moment), appamada (awareness suffused with ethical care), and sampajañña (awareness suffused with a sense of spiritual development).
Discussion: Although currently only sati has been recognised in the West, we have much to gain from also recognising the potential ethical and spiritual dimensions of mindfulness.

Diptu Visuddhangkoon - Ethics and Mindfulness Practice
Abstract:
Introduction: Taking a Buddhist perspective on mindfulness training, this paper explores the terrain of ethical orientation to one’s being and becoming for the achievement of optimum benefit from the practice of mindfulness. When looked at strictly from the Buddhist perspective, the practice of mindfulness cannot be severed from ethics or moral foundation.
Method: This research is based on a close analytical study of the Satipatthana Sutta, dhamma talks of vipassana meditation masters of Thailand and Myanmar, manuals of mindfulness practice in the Theravada tradition and participation in meditation retreats.
Results: Ethics and mindfulness work in tandem, one flowing into and energizing the other. Ethical values like generosity, altruism, compassion, selflessness or non-egocentrism can be brought into full realization with the help of mindfulness.
Discussion: When mindfulness practice and ethics are intertwined, any tendency towards deferment of that which is ethical gets nullified, because the metamentative stance of watching one’s own thoughts creates self-reflexive awareness. With ethico-mindfulness practice, the deconstruction of dichotomous thought-processes can be rigorously and genuinely put into practice. In the teachings of most vipassana meditation masters, the human Ego in diverse kammic dimensions – psycho-socio-linguistic and philosophico-cultural orientations – get dismantled time and again along with dualistic mental states arising from attachment to me and mine, I and the ‘Other’. Although mindfulness training and fetishization attached to it is growing rapidly, without a combined emphasis on ethics, the practice can only
lead to the experience of momentary peacefulness, bereft of any long-term benefit to the practitioners.

**Finn Janning - Mindfulness as an Ethical Practice**

Abstract:
In this paper I ask two questions. The first is: What is an ethical practice? The second question is: Is mindfulness an ethical practice? My ultimate concern, however, is the possible link between the two issues: What relationship does mindfulness have with ethics? To answer these questions, I first draw on three classical ethical theories from the Western history of philosophy such as Aristotle, Spinoza and Nietzsche to define ethics as way of being. Then, I integrate and compare some significant elements from these three ethics with the practice of mindfulness, mainly as Jon Kabat-Zinn defines it. This is done to clarify to what extent mindfulness is an ethics. My study reveals that not only is mindfulness a classical ethical practice (as understood in a Western philosophical context), but also – and perhaps more surprising – mindfulness is closer to some Western ethics than to Buddhism. For example, regarding whether “the Good” is known beforehand or not, whether ethics is an immanent or transcendent practice, whether ethics is a judgmental or nonjudgmental practice. Last, I briefly discuss in what way mindfulness can shed new light on the Western ethics, and how.

**Pascal Frank - Detecting non-rational components of personal epistemology regarding ethical dilemmas via mindfulness**

Abstract:
Introduction: The meat paradox describes the phenomenon that people consume animal-based foods while demonstrating moral concerns about animal production. Current research on the topic shows that practico-affective motivations – largely unconscious for the individual agents – shape the beliefs people hold about the reasons for such paradoxical eating behavior, thus providing epistemic support for (subjectively) immoral comportment.

Method: I will suggest Mindfulness as an introspective-interventionist method to explore motivational-affective (non-rational) components of personal epistemology. Mindfulness intends to observe and attend the stream of thoughts, feelings and sensations from moment to moment while detaching from these events. So if motivational-affective factors influence personal knowledge development, they can potentially be observable via mindfulness meditation.

Results: The influence of non-rational components on personal epistemology is not limited to representatives of the meat paradox. I rather argue that such components are constitutive for any knowledge production: they precede the confrontation with evidence, filter the latter and determine their importance with regards to the vindication or refutation of beliefs.

Discussion: The hypothesis implies that making such unconscious components of belief-crafting conscious via mindfulness is particularly important when it comes to unethical behavior. Instead of lingering in faltered discourse, the technique might contribute to the deconstruction of given justifications, render the moral inconsistency visible and lay the groundwork for more sincere dealings with the underlying motivations behind problematic actions.

**Symposium 43: Mindfulness and movement**

*Chair: Domenico Scaringi*

**Melinda Asztalos - The 3M System: Mindful Movement or How to “Be in all that you Do”**
Abstract:
Introduction

Based on the concept of mindful movement (launched in Asztalos et al. (2012) Sport participation and stress among women and men. Psychology of Sport and Exercise 13, 466-483), The 3M System teaches conscious and biomechanically harmonious movement and an inward focus of attention, within the body and on the changeable aspects of the mind. The innovative feature of The 3M System is that it “converts” common daily activities and basic bodily movements into 3M mindful movement, thereby making mindfulness and meditation available to the general public, including to individuals who are not particularly open to meditative practices.

Method

Under the motto “Be in all that you Do”, The 3M System trains the observation of four elements: posture/movement, breathing, thoughts and feelings. A sort “retreat into the core self” happens as the person experiences “one self” that does the action, breathes, thinks and feels, while simultaneously “another self” observes everything. The more the Observer is identified, the greater the capacity of the person for non-identification with distressing circumstances.

Results

The 3M System inspires and empowers people to recognize opportunities in challenges and to undertake meaningful actions. It is protective against stress and overwhelm. Particular success was achieved in grief management, severe self-confidence and esteem issues, depression and anxiety. Adopting the 3M Basics (3M breathing, 3M standing, 3M sitting, 3M walking) triggers positive changes in a person’s general attitude toward life, encouraging openness and gratitude.

Discussion

Further research into the effectiveness of The 3M System would be a worthwhile and valuable endeavor.

Ho Law - Mindful Tai Chi: the stillness in movements

Abstract:

Introduction: This presentation aims to provide participants with an insight about Tai Chi and how it relates to mindfulness. Psychologists are increasingly appreciating the value of mindfulness. However, many scholars find its practices controversial and philosophy confusing (Van Gordon and Griffiths, 2014). This paper presents an alternative form of mindfulness exercise known as Ng’s Tai Chi. It consists of a sequence of slow dance-like movements that help to achieve mindfulness. It also has additional benefits of general physical exercises. The presentation will also provide an account of the lineage of a Mindfulness Tai Chi according to Ng’s Family tradition which is relatively not well known or taught in the West.

Method: Ethnography. A collection of stories and observations over the years in which the practitioners came across in their mindfulness journey.

Results: By the end of this presentation, the participants will be able to:
1. Understand five essential prerequisite/elements of Mindful Tai Chi
2. Understand three fundamental principles of Mindful Tai Chi
3. Master some basic movements of Mindful Tai Chi and continue practising them in their own time.

Discussion: Despite the widespread practices of Tai Chi and mindfulness, their principles are often misunderstood in the West in terms of their ethics and practices. This paper shows the
authenticity, cultural ethics and integrative wholes of Mindful Tai Chi by demonstrating its overarching principles for the community of practice.

**Josef Mattes - Mindful movement and attentional focus**

Abstract:
Introduction: Sports psychologists recently discovered that the focus of attention has considerable impact on movement performance. This has been known for a long time both in "Eastern" mindful movement practices like Qigong, Yiquan, or Aikido; as well as in "Western" somatic practices. This talk provides a brief introduction to one prominent form of somatics (the Feldenkrais Method), discusses the importance of attention in its context and in relationship to the state of the art in sports psychology, and closes with a number of hypotheses concerning mindful movement and motor learning and performance. If time permits, some tentative results on psychological effects of long term Feldenkrais practice will in addition be briefly present.

Method: Attentional focus: Literature review and discussion.
Psychological effects: Online survey (convenience sample, non-randomized control group).
Results: Sports psychology seems on the cusp of progressing beyond a simple internal/external focus of attention to a much more in-depth study of the effects of different forms and foci of attention. Concerning psychological effects, tentative results indicate no large effects of practicing Feldenkrais for several years.
Conclusions: Sport psychology could conceivably profit from the study of mindful movement practices. In addition, mindful movement practices deserve the attention of researchers in mindfulness and positive psychology. Psychological effects of mindful movement require considerable further study.

**Ying Hwa Kee - Mindful awareness of body centre and postural balance**

Abstract:
Introduction: The term 'centering' has been used in sport psychology to describe the mental strategy of refocusing oneself in preparation for optimal performance. However, whether centering necessarily requires mindful awareness of body symmetry is unclear. Given the close resemblance between centering and mindfulness, the immediate effect of a mindfulness-based centering induction on a challenging postural balance was examined to examine whether momentary mindful attention of one's body symmetry could enhance postural balance performance.

Method: Participants were 56 males randomly assigned either to the centering condition or the control condition. Those in the centering condition were asked to mindfully attend to their arm movements as they moved them slowly and symmetrically towards/away the midline of the body repetitively for 6 minutes. Participants performed a brief single leg postural balance task on a Kistler force plate before and after the manipulation induction in order to have their centre-of-pressure data recorded.

Results: A mixed-design ANOVA with time (pre, post) as a within-subjects factor and condition assigned (experimental, control) as between-subjects factor was performed, with approximate entropy of centre of pressure as dependent variable. Significant interaction effect was observed, \(F(1,54) = 4.83, p = .032\). Approximate entropy for the experimental group increased pre to post, while that of the control group tended to decrease.

Discussion: Given that higher approximate entropy measure of centre of pressure data suggests greater adaptability, it appears that there are potential benefits mindful centering exercises; particularly in preparing individuals for coping with a physical challenging postural control task.
Marco Sperduti - Does mindfulness enhances interoception? A dissociation between different interoceptive abilities  
(Marco Sperduti, Dominique Makowski, Pascale Piolino)  
Abstract:  
Introduction: Different theoretical models have indicated self-awareness (SA) as a central mechanism of mindfulness. Nevertheless, little empirical evidence has produced on the link between mindfulness and SA, in particular on the perception of internal bodily sensation (interoception). This is surprising, since attention to bodily signals is cultivated in most contemplative traditions. These few studies have reported contradictory results. Recently, a multi-componential account of interoceptive abilities, distinguishing between interoceptive accuracy, sensibility and awareness has been proposed. Thus, this discrepancy could be reconciled by assuming a dissociation between different interoceptive processes linked to mindfulness. Method: In the first experiment 1138 participants, within whom 130 meditators, responded to questionnaires assessing mindfulness trait (Five Facet Mindfulness Questionnaire), and interoception (Multidimensional Assessment of Interoceptive Awareness) as subjective measures. In the second experiment, 40 participants responded to the same questionnaires and completed a modified version of the heartbeat counting task as an objective measure of interoceptive accuracy, sensibility and awareness. Results: In the large sample, we showed that self-reported mindfulness and interoception were highly correlated. Moreover, in our second experiment we found a differential link between trait mindfulness and specific interoceptive abilities. Discussion: We showed here, using subjective and objective measures, that trait mindfulness is associated with specific interoceptive abilities. Given the well-established role of interoception on emotional awareness and regulations, these results could have a theoretical interest in explaining the mechanisms linking mindfulness to self-regulation and well-being.

Patrizia Garberi - Mindfulness-based stress reduction and interoceptive awareness  
Abstract:  
In the last decade the studies on interoception have multiplied, being a particular index and still not well understood that defines the range of sensations we receive from within the body, together with their subjective and conscious evaluation. For this reason interoceptive awareness is often used to check the incidence of contemplative practices on the sense of self (Farb et al., 2015), and we also wanted to study the variations of this parameter before and after an MBSR training.  
Method  
• We used the classic test of detection of the heartbeat (HBD), (Schandry, 1981) which calculates a subjective index (SI).  
• We wanted to add a questionnaire to measure larger areas of the body perception, the MAIA (Meheling, 2005) in addition to the awareness of the heartbeat  
• We also measured the baseline heart rate variability (HRV) as an indicator of a more objective physiological regulation induced by training.  
Results  
• The study confirmed the hypothesis that SI measured using HBD is not affected by meditation practice.  
• On the other hand, some scales of MAIA have made a significant improvement modulated by
training on the total group of participants, confirming other studies.
- The HRV measurement comparing the two groups produced a very encouraging value, witnessing an increase in HRV in the experimental group.

Discussion
The study confirmed the findings of other studies, showing that an MBSR course in only 8 weeks can be as effective as longer trainings, focused on selected practices. It also made it clear that it is useful to compare the interaction between physiological parameters and conscious reports of the meditative experience, to give strength to its understanding and its impact in the subjective experience.

Marieke van Vugt - Introducing "sticky distraction" and its relevance for mindfulness research

Abstract:
Introduction: Distraction is typically thought of as an abstract off-task state. However, any practitioner of mindfulness knows that not all distraction is the same. Specifically, some types of distraction keep pestering the practitioner and can be said to be "sticky." Sticky distractions--often self-related--are difficult to disengage from and difficult to control.
Method: We have developed two tasks that can be used to experimentally capture this dimension of stickiness. In a complex working memory task, we induce "stickiness" by asking the participant to think about themselves. In a sustained attention to response task (SART), we induce stickiness by including words that describe a participant’s goals or concerns and introduce thought probes to directly assess the stickiness of a participant's thoughts.
Results: We found that inducing self-referential thought in a complex working memory task reduced memory scores. In the SART, periods rated higher on the stickiness dimension were associated with increased off-task thinking and increased variability in response time.
Discussion: There appear to exist multiple ways in being distracted. Since mindfulness has been thought to increase equanimity and specifically reduce sticky distraction, these tasks may be of use. Moreover, we will show how computational cognitive models of mindfulness could capture these behavioral results.

Hari Narayanan V - A Mindful Way to Reduce Cognitive Distortions

Abstract:
That the human mind is susceptible to a number of cognitive biases is proved by means of several psychological studies. Kahneman’s famous account of two systems and two selves provide a fertile framework to explain the presence of systematic biases and distortions in human cognitive processing. This paper is a philosophical exploration into that explanatory framework inquiring into the possibility of mitigating the susceptibility to cognitive distortions. The paper builds upon Kahneman’s observation that remembering self is dominant vis-a-vis experiential self and argues that mind wandering is one of the major factors that result in this domination. It is argued that dominance of the remembering self is the source of many cognitive distortions such as duration neglect, peak end rule and even illusion of validity. If the phenomenon of mind wandering is related to remembering self, then mindfulness practice can be an antidote to the constant presence of the remembering self. Since mindfulness is about being in the present, it is clear that remembering self can no longer play the key role in the life of a mindful person. It is contended that mind wandering and the consequent emergence of the remembering self must have had evolutionary advantage in a different environment and our present environment is conducive to lead a mindful life. Thus, it is concluded that mindfulness can help in enhancing the presence of the experiential self which, in turn, helps in reducing the susceptibility to a number of cognitive
Abstract:
INTRODUCTION: Mindfulness Based Stress Reduction (MBSR) can reduce stress and regulate emotions in people with various clinical and sub-clinical difficulties. However, underlying biological mechanisms are still not clear. Oxidative stress seems to be involved in the pathophysiological processes derived from psychological stress. Recent studies indicated that MBSR may decrease some markers of inflammation, but little is known about its effect on oxidative stress parameters. The present study tested whether MBSR program can reduce oxidative and inflammatory biomarkers.

METHODS: Study was conducted on 30 MBSR participants compared to a Wait-List control group (n. 30). Psychological measures and saliva sampling were assessed pre- and post-training. Cortisol was measured by an Enzyme Immunoassay kit. Cytokines were assayed by means of Bioplex Assay. F2-isoprostanes were determined by gas-mass analysis.

RESULTS: Levels of F2-isoprostanes, a gold standard for oxidative stress in vivo, were significantly reduced after MBSR training. Also, decreased levels of inflammatory markers (including IL-6 and IL-8), elevation of the anti-inflammatory cytokine IL-10, and reduction of cortisol were observed. MBSR participants showed a significant decrease in both perceived stress and state anxiety, and increase in awareness levels. Control subjects did not show any significant difference.

DISCUSSION: This study is the first investigation of the changes in oxidative and inflammatory status induced by MBSR, by using no invasive sampling (saliva). Due to the key role played by oxidative stress and inflammation in many diseases, our data suggest a biological basis for the health benefits of MBSR. This finding should be further investigated in larger samples.

Abstract:
Special units of the Armed Forces have to handle extraordinary situations characterized by extremely high levels of unpredictability, uncertainty, and risk. Faced with this type of situations, the adaptive abilities of professionals are challenged (Thompson & McCreary, 2006). We hypothesized that these abilities are strongly related to mindfulness dispositions and to emotional profile.

Seventy two policemen, applicants to the Special Operations Unit of the French Gendarmerie (GIGN), participated in this study. Their adaptive performance was assessed by GIGN instructors during an eight-week selection process during which applicants were exposed to various unpredictable situations. Applicants’ mindfulness and emotional profile – especially, neuroticism and coping style – were measured using questionnaires: Five-Facet Mindfulness Questionnaire, NEO Personality Inventory revised and Coping Inventory for Stressful Situations, respectively.

Consistent with the instructors’ selection criteria, we assumed that selected applicants...
differed from non-selected applicants in their ability to cope with unpredictable situations. The results showed that a high level of mindfulness, a low level of neuroticism, and a low level of emotion-oriented coping were predictive of selection. Therefore, these personal dispositions can explain an individual’s ability to adapt to unpredictable situations. These results add to the body of knowledge on Cognitive Readiness (Fautua & Schatz, 2012). Possible applications related to the selection and training of professionals operating in unpredictable situations are considered. In particular, the potential benefits of mindfulness training, compared to other stress-management techniques currently in use in the French Armed Forces, are discussed.

Lucy Tan - What Good is Brief Mindfulness Practice? A Study of The Processes Using Social-Cognitive Psychological Methods
(L. TAN 1, B. LO, N. MACRAE)

Abstract:
Introduction: The ability to infer and understand the mental states of others (i.e., Theory of Mind) is a cornerstone of human interaction. This study presents the results of mindfulness-based meditation in improving people’s mindreading skills.

Method: The study had a single factor (condition: mindfulness vs control) between-participants design. Participants were randomly assigned to one of the treatment conditions, and were blind to the purpose of the study. Participants (N =72) were instructed that the study comprised an investigation (i.e., a series of tasks) into people’s reactions to different types of thoughts and situations. Thirty-six participants were introduced to a brief mindfulness of the breath meditation, another group of participants were introduced to a similar exercise instructing them to pay particular attention to whatever thoughts, sensations or feelings that may arise and be completely immersed in the experience wherever their mind takes them, i.e., mind wander.

Two complementary tests widely used in social cognition/psychology were presented. The Reading the Mind in the Eyes Test (Baron-Cohen, Wheelwright, Hill, Raste, & Plumb, 2001), and Cyberball Social Exclusion Game (Williams, Cheung, & Choi, 2000) were introduced, to examine mind reading (ToM) and empathic understanding respectively.

Findings: Results revealed participants in the mindfulness condition reported a greater awareness of the present moment than their counterparts in the control condition. Regression analyses were also undertaken to test the predictive power of mindfulness after controlling for other variables (i.e. sex and age). Neither age nor sex was significant predictors in this model. Significant between-group differences were also found for empathic understanding.

Conclusions: Extant research has focused primarily on explicating the problems that emerge when mindreading goes awry, efforts of identification strategies (and interventions) that enhance person understanding is important. Here, brief mindfulness training improves ToM may have implications that extend beyond the laboratory.

Symposium 46: First person experience as a transcendental starting point
Chair: Franco Bertossa

Paolo Pendenza - Can the objective do without the subjective? An integrative proposal

Abstract:
The objective representation of the world is a popular common sense idea in Western culture based on valuable evidences based on the scientific approach, its experiments, applicative results and theories. Without discussing the irrefutable effectiveness of science, it is worth considering the fact that each logic, embraceable, scientific demonstration presupposes its
subjective consideration and understanding. The subjective dimension seems an unavoidable point recognizable through a reliable method of investigation. We overlook the traditional scientific method based on the objectivity postulate which doesn't fully account for the understanding of consciousness in contemporary research. While the descriptive, third-person approach considers and analyzes the cultural, historical and scientific underpinnings of contemplative experiences, consciousness as an ongoing fact needs an extremely rigorous first-person definition. The aim of the presentation is to shed light on meditation as an empiric practice that can produce a grounded knowledge, if associated with a thorough intersubjective discernment on the field of experience. Varela's second-person analysis can be validated within his neuro-phenomenological approach associating first and third-person data without attempting a reduction. The link between inner subjective experience and objective measures can change through the dialogic second-person -meant as the intersubjective mirror of implicit knowledge. These considerations would suggest that mindfulness can be understood not only as a therapeutic application but also as an explicit philosophical tool aimed at inspecting the structure of consciousness and the knowledge process itself, gaining an intersubjective validity through the awareness of the dialogical construction process.

Giorgio Santi - Knowledge as intentional and transcendental insight

Abstract:
Historically psychologists have been reluctant to acknowledge intuition as a viable construct, considering it as the product of unconscious bottom-up processes, an outcome of implicit learning that becomes explicit. However both Buddhist and Western views share the possibility of a non-conceptual knowing which brings directly to experience consciousness as it is: an intuitive awareness not linked only to conceptual contents but to any possible content or state of mind. Non-conceptual knowing—opposed to inductive and deductive conceptual thinking—consists in experiencing an evidence as immediate, indubitable and unquestionable. Phenomenology reorients awareness to the present experience and to awareness itself, producing a state of consciousness adequate for the analysis of the basic concepts of thought: the Kantian a priori, the Husserlian transcendentalism and intentionality. It is necessary to share and scrutinize the intuitive capability of mind in order to create the conditions for a group-awareness that enquires mind itself. Analyzing mind thoroughly through Vipassana meditation and integrating that practice in the group discussion, a common conscious state that enables the openness to intuition will be hopefully achievable. Dealing with that higher form of intuitive knowing both theoretically and experientially, should enhance the inherently reflexive characteristic of mind. Through the issues mentioned above, a discussion on the investigation of how first-person abstract knowledge becomes intuitively self-evident will be proposed. Hopefully enabling a right mindful mind that spontaneously yields an insightful wisdom.

Franco Bertossa - The lack of the ongoing experience in the descriptive approach: a proposal for consciousness as an immanent aprioristic experience

Abstract:
The origins of contemporary Mindfulness Interventions refer to classical Buddhism and to its search of a truth upon ourselves. Although their recent therapeutic applications highlight psycho-physical benefits they run the risk of being reduced to mere scientific explanations and clinical applications. The actual spread of Mindfulness Interventions represents an extraordinary occasion of introducing Westerners to an insightful apperception of the
phenomenology of consciousness. The nucleus of that apperception suggests some criticalities about its mere reduction to psycho-physiology correlations. In accordance with the Kantian transcendentals, conditions of each attempt of objectification are always already present as a prioristic features of knowledge. In the same way consciousness characterizes every scientific inquiry in a circular, a prioristic way. A maieutic dialogue can lead to the evidence of such an essential quality of experience, discussing its relation with the actual scientific paradigm. The possibilities of investigating consciousness are widened by deepening the mystery of our own being, bridging the Buddhist way of inquiring with Western philosophy.

Symposium 47: Internet-based Mindfulness
Chair: Ramasamy Manikam

Moitree Banerjee - Barriers to Mindfulness: A path analytic model exploring the role of rumination and worry in predicting psychological and physical engagement in an online mindfulness-based intervention
(Kate Cavanagh, Clara Strauss)

Abstract:
Little is known about the factors associated with engagement in mindfulness-based interventions (MBIs). Moreover, engagement in MBIs is usually defined in terms of class attendance (physical engagement) only. However, in the psychotherapy literature, there is increasing emphasis on measuring participants’ psychological involvement with interventions (psychological engagement). This study tests a model that rumination and worry act as barriers to physical and psychological engagement in MBIs and that this in turn impedes learning mindfulness. One hundred and twenty-four participants were given access to a two-week online mindfulness-based self-help (MBSH) intervention. Self-report measures of mindfulness, rumination, worry, positive beliefs about rumination, positive beliefs about worry and physical and psychological engagement were administered. A path-analysis was used to test the linear relationships between the variables. Physical and psychological engagement were identified as two distinct constructs. Findings were that rumination uniquely accounted for a reduction in physical engagement in MBSH, whilst worry uniquely accounted for a reduction in psychological engagement. However, only psychological engagement was found to play a mediating role, mediating the relationship between worry and improvements in mindfulness.

Thus, rumination and worry may increase risk of disengagement from MBSH and poor psychological engagement in particular may hinder learning mindfulness.

Arnold van Emmerik - Efficacy of a Mindfulness-Based Mobile Application: A Randomized Waiting-List Controlled Trial
(Arnold van Emmerik, Fieke Berings, Jaap Lancee)

Abstract:
Introduction: Although several hundreds of apps are available that (cl)aim to promote mindfulness, only a few methodologically sound studies have evaluated the efficacy of these apps. This randomized waiting-list controlled trial therefore tested the hypothesis that one such app (the VGZ Mindfulness Coach) can achieve immediate and long-term improvements of mindfulness, quality of life, general psychiatric symptoms, and self-actualization.
Methods: 191 experimental participants received the VGZ Mindfulness Coach, a freely available app which offers 40 mindfulness exercises and background information about mindfulness.
Results: Compared to 186 control participants, the 191 experimental participants reported
large (Cohen’s $d = 0.77$) and statistically significant increases of mindfulness after 8 weeks. Also, there were large decreases of general psychiatric symptoms (Cohen’s $d = -0.68$) and moderate increases of psychological, social, and environmental quality of life (Cohen’s $d = 0.38, 0.38,$ and $0.36$, respectively). Except for social quality of life, these gains were maintained for at least 3 months.

Discussion: We conclude that it is possible to achieve durable positive effects on mindfulness, general psychiatric symptoms, and several aspects of quality of life at low costs with self-help apps for mindfulness such as the VGZ Mindfulness Coach.

**Marion Spijkerman - Effectiveness of online mindfulness-based interventions in improving mental health: A review and meta-analysis of randomized controlled trials**
(Marion Spijkerman, Wendy Pots, Ernst Bohlmeijer)

**Abstract:**
Introduction: Mindfulness-based interventions (MBIs) are increasingly being delivered through the Internet. Whereas numerous meta-analyses have investigated the effectiveness of face-to-face MBIs in the context of mental health and well-being, thus far a quantitative synthesis of the effectiveness of online MBIs is lacking. The aim of this study was to estimate the overall effects of online MBIs on mental health.

Method: Fifteen randomised controlled trials were included. Five separate meta-analyses were performed for (1) depression, (2) anxiety, (3) stress, (4) well-being and (5) mindfulness, using a random effects model.

Results: Results showed that online MBIs have a small but significant beneficial impact on depression ($g = 0.29$), anxiety ($g = 0.22$), well-being ($g = 0.23$) and mindfulness ($g = 0.32$). The largest effect was found for stress, with a moderate effect size ($g = 0.51$). For stress and mindfulness, exploratory subgroup analyses demonstrated significantly higher effect sizes for guided than for unguided online MBIs. Effect sizes for stress were significantly moderated by the number of intervention sessions.

Discussion: The findings indicate that online MBIs have potential to contribute to improving mental health outcomes, particularly stress. Given the widespread attention for mindfulness and the potential value of online MBIs for clinical practice, additional research to establish the beneficial effects of online MBIs and to gain insight in their moderators of effectiveness is warranted.

**Birgitta Johansson - Mindfulness delivered live on the Internet to individuals suffering from mental fatigue after an acquired brain injury**
(Birgitta Johansson, Jan-Olof Karlsson)

**Abstract:**
Introduction: An acquired brain injury often leads to long-lasting mental fatigue. Generally, patients are advised to adapt to an appropriate balance between rest and activity but it can take several years of considerable effort, frustration and despair to find the right balance and lead life in a new way. The aim of this feasibility study was to evaluate whether an MBSR program could be successfully delivered live online to individuals who have experienced a traumatic brain injury or stroke and were suffering from long-lasting mental fatigue.

Method: Our MBSR intervention was based on Kabat-Zinn’s MBSR program with eight weekly 2.5-h sessions and one full-day session. The group environment is thought to be important for sharing experiences with others and learning from the group dialogue. The participants were encouraged to practice at home 6 days/week and to introduce mindfulness into their daily living. Kindness and compassion skills were embedded in the entire program. A live Internet MBSR group (n=13), a face-to-face MBSR group (12), and an active control group who took
weekly walks in natural environments (9) were included.

Results: We found significantly reduced mental fatigue and an improved attention (attentional blink task) after the MBSR program, while this was not detected in the control group.

Discussion: This feasibility study showed the possibility to deliver a live, interactive, online MBSR program to a group of people suffering from mental fatigue after an acquired brain injury and obtain positive effects in the same ranges as for a face-to-face group.

Symposium 48: Mindfulness and Emotion Regulation
Chair: Domenico Scaringi

Carina Remmers - Beyond the borders of self-report: Mindfulness fosters implicit mood regulation
(Carina Remmers, Sascha Topolinski, Sander L. Koole)

Abstract:
Introduction: Research regarding the beneficial effects of mindfulness on emotion regulation is mostly based on self-report measures. Little is known, however, about the effects of mindfulness on less conscious, that is, implicit emotion regulation. Thus, the aim of the current experiment was to investigate the hypothesis that mindfulness down-regulates both explicit and implicit negative mood. Method: After a sad mood induction, healthy participants (N=72) engaged in either a mindfulness, distraction, or rumination exercise. Explicit negative mood changes were assessed with the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988); implicit negative mood changes were assessed with the Implicit Positive and Negative Affect Test (Quirin, Kazén, & Kuhl, 2009). Results: In contrast to rumination, mindfulness and distraction lead to decreased levels of both explicit and implicit negative mood. In the mindfulness, but not in the distraction and rumination groups, implicit and explicit negative mood were significantly correlated. The only significant finding that emerged for trait mindfulness was that it was associated with lower implicit – but not explicit – negative mood across the whole sample both before and after the strategy induction. Discussion: The current findings of decreased explicit as well as implicit negative mood after an active mindfulness exercise indicate that the emotional benefits deriving from mindfulness go beyond the borders of self-report. Furthermore, the finding of higher congruence between implicit and explicit mood measures in the mindfulness group suggests that mindfulness may foster a more balanced mental state, in which discrepancies between different levels of processing are resolved.

Dominique Makowski - Does Mindfulness ability differently affect Implicit and Explicit Emotion Regulation?
(Dominique Makowski, Marco Sperduti, Pascale Piolino)

Abstract:
Introduction: The link between mindfulness and emotion regulation (ER) is well documented, as denoted by its extensive use in the treatment of mood disorders. However, the neurocognitive mechanisms by which mindfulness increase ER abilities are still under debate. Moreover, most of the studies investigate the use of voluntary ER strategies. Thus, it remains unclear if mindfulness trait is also associated with an enhanced efficiency of implicit ER.

Methods: In the first experiment, 1137 participants responded to questionnaires assessing mindfulness trait (FFMQ) and five ER strategies (ASQ). In the second experiment, 40 participants completed the emotional attention blink task, which could be considered as an implicit ER procedure, with a full recording of the emotional response (including subjective experience, electrodermal activity, ECG and facial EMG). In a second part, the participants
were asked to complete the same procedure, but this time with explicit instructions to cognitively detach themselves from the stimuli.
Results: The large-sample assessment showed that non-reactivity correlated with every ER strategies, but the four others did not correlated with Suppression and Pretending. The experimental study showed that both implicit and explicit ER ability correlated with non-reactivity but were selectively related with the other facets.
Discussion: Implicit and Explicit ER do not completely overlap in their neurocognitive substrate, and mindfulness does not affect those two processes equally. These findings refine our knowledge on the link between mindfulness and emotion regulation and open perspectives on their use in clinical practice.

Laura Cicociopi - Emotions and Health Behaviors: The Role of Mindfulness and Meditative Movement
(Laura Cicociopi, Paola Gremigni)
Abstract:
Introduction: Meditative Movement (MM) consists of body positioning with a focus on breathing, and a cleared state of mind. MM provides an implicit training on mindfulness, which may improve psychological wellbeing via better emotion regulation. Little is known about differences in the levels of mindfulness between people who practice MM, those practicing conventional exercises and sedentary people without meditation experiences. This study aimed to investigate whether (1) people engaged in MM practices report more mindfulness than the other groups; (2) greater levels of mindfulness explain the adoption of healthy behaviors; (3) mindfulness are explained by personality traits related to emotion regulation.
Method: The sample consists of 193 participants, 36.8% males, aged between 15 and 68 years practicing MM, aerobic activity, or reporting a sedentary lifestyle. The measures used were: Freiburg Mindfulness Inventory, Mindful Eating Questionnaire, Toronto Alexithymia Scale, Positive and Negative Affect Schedule, Neuroticism Subscale of the Eysenck Personality Questionnaire, and Hypersensitive Narcissism Scale.
Results: (1) Practitioners of MM differed from the others in terms of reduced response to emotional distress by eating; (2) mindfulness seemed not to influence the consumption of alcohol and tobacco; (3) the strongest predictor of mindfulness was the presence of positive emotional states, while older age and better emotion regulation predicted mindful eating scores.
Discussion: Practicing MM can improve the relationship with food, especially by implementing the behavior-related dimensions of mindful eating, while differences in the cognitive dimensions of mindfulness were not found to be improved in people practicing MM, compared to the other groups.

Ann Chanler - Tangled up in you: Mindfulness meets enmeshment
Abstract:
This is a paper about mindfulness and psychotherapy.
An event in the author's personal life leads her to meditate on the long-term emotional impact of relationships in which the boundaries are porous and the expression of empathy is felt disproportionately by one person. In these "enmeshed" relationships, one person's body can feel inhabited by the other person's experience. Using mindfulness meditation—the state of being fully attuned to the present, observing, but not judging, the thoughts and feelings that may arise—bodily awareness can deepen as healthy psychological boundaries take hold, lessening the confusion that comes with fusion. The author’s work with a female patient
extends the use of relational mindfulness into the psychotherapy consulting room. Here, as the patient's relationship with her embodied self expands, a new, more emotionally delineated way of relating to her family emerges. The author concludes that rooting oneself in the body through mindful awareness helps individuals to dis-embed from entangled relationships, encouraging a balanced sharing of emotion and empathy.

Symposium 49: Mindfulness and mental health
Chair: Federica Mauro

Nanna Ahlmark - Transformation through breathing: Breathe SMART as a way out of crime and substance abuse among youth in Denmark
Abstract:
Introduction: The health related benefits such as stress reduction of mindfulness meditation and breathing exercises is a growing field of research, but qualitative research on the experienced benefits of such practices remains scarce. This study investigates the character of the transformation experienced by youths involved in violent crime and substance abuse through meditation, yoga and breathing techniques called Sudarshan Kriya, as taught in the organisation Art of Living and in a Danish context, Breathe SMART.
Method: The study is based on 14 in-depth qualitative interviews with 11 participants in the Breathe SMART programme as well as participant observations during a Breathe SMART 5-day course and a group session. Some participants were followed up to a year.
Results: The study showed how participants’ social conditions, including childhood neglect and failures of social authorities influenced their criminal careers and violent behaviour. It also showed that the bodily experiences through the breathing exercises combined with conversation in Breathe SMART provided radically new insights, ressources and new directions for many participants. They experienced changes regarding: criminal activities and substance abuse; ideals and identity, and newfound empathy in relationships with partners and family.
Discussion: The study shows the extent of human resources that can be mobilized also among youth deemed lost by the social system under the right circumstances, which for some entail a bodily entry point with breathing exercises and experiencing being recognised as central tools.

Gabriele Buracchi - Meditation as therapy in Addiction
(Gabriele Buracchi, Andrea Leonardi)
Abstract:
Introduction: If the training to attention and awareness, characteristic of meditation, can bring the mental processes under greater voluntary control, by promoting general well-being, mental development and /or specific skills like calm, clarity and concentration, we should expect a utility of this training in the treatment of addictions too. In fact, an ever greater amount of scientific articles shows how the meditation provides benefits not only for the whole wide range of psychophysiological disorders, but it is also effective in the treatment of substances addiction, therapeutic intervention focus at the Franceschi Foundation also.
Method: Our Review is based on a research carried out on Medline using the terms: Meditation, Mindfulness, Addiction, in various combinations. A particular interest was placed on the role of Dopamine, a neurotransmitter that has been, until nowdays, classically associated with the reinforcing effects of drugs and other addictions.
Results: We traced a large amount of experiences in various parts of the world and employing different sort of Meditation (Mindfulness, Vipassana, Yoga, Tai Chi and Qi Gong) applied to the
treatment of addictions.
Discussion: The use of these techniques has shown a wide range of positive results, opening up perspectives of great interest both in the treatment of addictions and in the reduction of relapses. Meditation narrows experiential avoidance, promoting the non-judgmental acceptance of the thoughts that arise moment by moment and stopping the tendency to respond to these thoughts in maladaptive behaviors such as the substances’ use.

Tara Hickey - Development of a mindfulness and compassion intervention for young people with an at risk mental state using a systematic approach
(Tara Hickey, Graham Meadows, Barnaby Nelson)
Abstract:
Introduction: This presentation is an overview of the development process for a new mindfulness and compassion program designed specifically for young people who have an increased risk of psychosis. Currently, there are no mindfulness evidence-based interventions available to this client group despite mindfulness interventions proving to be moderately effective for psychosis.
Method: The program was designed in accordance with best practice following the steps of the Medical Research Council's guidance on developing complex interventions (MRC, 2008). First, an understanding of the factors underlying clinical practice was gained to identify what sort of processes should be targeted. Next relevant theory was explored to ensure that each component of the intervention was chosen and placed within the program to ensure the best chance of optimizing outcome.
Results: The outcome of this evidence-driven process resulted in an 8-week intervention program. The program teaches specific mindfulness and compassion skills to target the distress associated with sub-threshold and brief psychotic symptoms, anxiety, depression and stress. It also focuses on increasing social and occupational functioning as well as social connectedness. The components of the intervention and how they may relate to final outcomes will be discussed.
Discussion: Use of the MRC framework has been valuable in informing the development of this intervention. The program will be refined based on a series of pilot studies and trialled to develop a curriculum to train other clinicians. It is hoped this program will provide young people at risk with a mindfulness intervention specifically tailored to meet their needs.

Maria Teresa Giarelli: Mindfulness With Adolescents In Psychiatric Contexts
Applicability of yhe Model: Educating to Stress Management Through Awareness
Abstract:
Introduction
The therapeutic relationship tool are we ourselves with our body-mind.
The development of the presence is required to carry out daily activities with care nursing.
The development of the present moment awareness is releasing by the chatter of the wandering mind.
Method
The experience of previous mindfulness were with parents and adult workers, to improve the resilience and to organize a subsequent mutual self-help group Locanda
The attempt to form a MBSR group at school was a failure, not being a workplace instructor.
The adolescents were recruited in the neuropsychiatry public service child aged 14, with challenging for 10 group psychotherapy CA016 progetto G
Discussion: The educational programs in place aims to discover the "place " where it stands and where it can change our ordinary view of reality, the mind, to get to know it, observe it,
and finally transcend

Symposium 50: Mindfulness in daily life
Chair: Geetesh Nirban

Venerable Peramandiye Indarathana - How mindfulness meditation can be applied in daily life
Abstract:
The term “mindfulness” occurs in the Buddhist scriptures in many contexts and is a member of several groups of doctrinal terms, of which only the important ones shall be mentioned here. Right mindfulness is the seventh factor of the noble Eightfold path leading to the extinction of sufferin’ that constitutes the fourth of the Four Noble truths. In the threefold division of the eightfold path into Virtue, Concentration and Wisdom, Right Mindfulness belongs to the second group, Concentration (samâdhi). This attempt is who it can be applied in the daily routing by the people. By today people are suffering from various kinds of problems which are related to their daily life. It is obvious that practicing mindfulness meditation in daily life which brings us more and more benefits and would help us to lead a happy life instead of bitter life. According to the according to the teachings of the Buddha it explains very clear way that how one should develop and practice mindfulness in their daily life. And also the message of the Buddha comes to the world as an effective way of help in present-day afflictions and problems. Once the Buddha states that if someone can life in the presence it help him to realize the truth and would help to understand as they really are. According to the satipattanasutta it explains more and more details about mindfulness and this attempts is to explain them deeply.

Tiloka Nanda Sraman - The liberating role of psychophysical boundaries in the contemplation of foulness (asubhabhāvanā)
Abstract:
The literary corpus of the Pali suttas outlines a soteriology based on a contemplative and investigative approach. The key instrument is given by the term wisdom (paññā) or by mindfulness and clear awareness (sati-sampajañña), mostly used in the formulas of the four foundations of mindfulness (satipaṭṭhāna). As the aim of teachings contained in the Pali Nikāyas can be epitomized by liberation of wisdom (paññā), any attempt to define wisdom (paññā), assumes crucial relevance. The term ‘wisdom’ conveys only a part of the profound semantic significance of wisdom, while the ‘mindfulness and clear awareness’ directly refer to a quality cultivable by means of a specific methods (the four foundations of mindfulness). It is reasonable to argue that meditative techniques show a profundity of thought that actually weaves the whole net of the Buddhist philosophical system. On this basis, this paper explore some nuances of contemplative practices applied to physical experience, trying to outline their implicit rationale.

Tiloka Nanda Sraman - Mindfulness in daily life
Abstract:
Appamado amatapada pamado maccuno padam,
Appamatta na miyanti yapamatha Mata.( dhamma pada verses)
Heedfulness is the path to the deathless,
Heedlessness is the path to death.
The heedful don’t die; the heedless are as if dead already.
In whatever we do, we want to achieve our aims. When we engage in any kind of
conversation, we want it to be worthwhile. We we envisage in any kind of thoughts, we want to turn it into the right direction, one in which the cause and effect will generate benefits for ourselves and others. In additional, the result will engender happiness, advancement, and peace for us all and for others in the world. This is why the Buddha said, "For any individual, man or woman, if one has a wish to find success and peace; one should practice the mind to secure the complete mindfulness ". Being able to use mindfulness means the ability to realize and know right at the time in the moment of our four postures (standing walking, sitting & lying) and of any kind of achieves we do including speaking and thinking. The practice and cultivation of the mind to have mindfulness is the principle of compassion. For these reason,, mindfulness is the virtue of great assistance. Mindfulness allow us and our mind to stay within the scope of goodness. It is valuable. The Lord Buddha teachers that virtue of the great assistance is very supportive and very good indeed. As a result, we then have a fully control over our activities, not to cause any harm, and to Bing about useful and fruitful results for ourselves and others.

" IMPORTANCE OF MINDFULNESS 

To lead a happy life one must care not only for the body but keep the mind healthy by not allowing the mind to be unwholesome. For this purpose, one must develop sati or mindfulness, and recognize and avoid the evil mental factors started earlier as the arise in the mind. This can be done by cultivating wholesome mental factors such as Aloha or detachment, Adosa or metta or compassion, mudita or appreciative joy, which is the opposite of jealousy, and upakkha or balance of mind. The most important mental factor that one should develop is insight wisdom or vipassana panna. It will make one see things as they are and not as they appear to be. The mental factor mindfulness or Sati can be applied in daily life also to recognize the unwholesome mental factors as they arise in the mind to avoid much trouble and unpleasantness. Sati when developed according to the instructions in the Satipathana Sutta can gradually eliminate all evil from the mind. Finally develop insight wisdom or Vipassananana and realize Nibbana the ultimate happiness. Arahants are such a persons, who are free from all defilements. They have realized Nibbana and live a contended life even though living under trees and caves in the forest. Let us also gradually avoid akusala conduct and lead a contended, happy life.

Posters – Thursday May 12

1 Avery Voos: Mindful parenting: Supporting parents of children with Autism Spectrum Disorder

Abstract:

Introduction: Research has consistently demonstrated that parents of children with Autism Spectrum Disorder (ASD) experience elevated levels of stress (Hayes & Watson, 2013). High levels of stress have been associated with negative parenting practices (Baydar et al., 2003), and can eliminate the positive effects of intervention for children with autism (Osborne et al., 2008). While parent training can help support parents around the time of initial diagnosis (Keen et al., 2010), reports of elevated levels of stress persist in parents who have received extensive training (e.g. Singh et al., 2006; 2014). Both the literature and clinical practice call for additional support for these parents.

Mindfulness is associated with increased life satisfaction, decreased depression and anxiety, and improved emotion regulation (Keng, Smoski & Robins, 2011). Researchers have introduced mindfulness to parents of children with developmental disabilities, demonstrating promising results on both child behavior and parental stress (e.g. Bogels et al., 2008; Singh et
Objectives: The current study aims to investigate whether an 8 week mindful parenting group for parents of children with ASD (curriculum by Bogels & Restifo, 2014) will increase parents’ mindfulness (Baer et al., 2006: FFMQ), and decrease parenting stress (Abdin, 1990; PSI).

Methods: Two groups (n=14) met weekly for 90 minutes, during which time parents were introduced to a meditation and mindful parenting exercise. Preliminary pre-post data will be assessed using dependent measures t-test.

Results: After participation, parents demonstrated decreased total stress t(13)= -2.29, p=.020, and child related stress, t(13)= -2.10, p=.028, as well as a less judgmental attitude towards themselves t(13)=2.69, p=.009.

Discussion: This preliminary data suggests that group mindfulness training may help to support parents of children with ASD by reducing their overall stress and self-judgment.

2 Jacob Stålnacke: Mindfulness in Gothenburg
(Katarina Plank, Jacob Stålnacke)

Abstract:
Mindfulness is offered at more and more places in Sweden, not only as a therapeutic aid in the health care services, but also as a spiritual tool for personal development. Few studies have empirically mapped the prevalence of mindfulness producers, and an empirical mapping and analyses of these places are still missing in a Swedish context.

The poster will present findings from an ongoing project, Mindfulness in Gothenburg - a project that is carried out between January and March 2016 at the University of Gothenburg. The collection of the data is done by netnographic and mapping methods, phone interviews and photo documentation.

Preliminary results from the project show that there are approximately 150 mindfulness producers in Gothenburg, which are mainly located in the center of the city. Six different types of producers are found; the psychologist, the healthcare worker, the professional meditator, the yoga instructor and the coach. In addition to the type analysis, the poster will also include an intersectional analysis of the mindfulness producers on variables such as gender and education in mindfulness.

The presentation of the findings contributes with a greater understanding as to how and where mindfulness is used in urban areas.

3 Viviana Capurso: The effects of mindfulness-oriented meditation on school teachers’ stress, burnout and personality traits
(Viviana Capurso, Franco Fabbro, Cristiano Crescentini)

Abstract:
Introduction: Teachers’ psychological wellbeing has a great importance in educational environments, for example because it can help fostering students learning. In recent years the school teacher’s job causes high stress levels and teachers constitute one of the professional collectives most affected by psychological problems such as emotional distress and burnout. Mindfulness meditation trainings are increasingly being applied to support teachers in managing the demands of teaching, and have been proposed as a fruitful approach to stress management. Little research, however, has so far investigated the effects of mindfulness-based interventions on teachers’ personality, analyzing the link between personality traits, wellbeing and the impact on the professional role. Method: The present investigation reports results from a randomized controlled study of mindfulness-oriented meditation (MOM) training for teachers. Teachers from a comprehensive Italian school - including infants, primary and secondary schools - were randomly assigned to MOM (n=20) or waitlist control
group (n=21). The effects of the 8-week MOM training were assessed using measures of personality traits (Big-Five personality traits), stress (Teachers Stress Inventory), psychological distress (Symptom Checklist 90-R), mindfulness skills (Five-Facet Mindfulness Questionnaire), and Burnout (Maslach Burnout Inventory). Results: Compared to control group, MOM participants showed significant reductions in stress and emotional exhaustion (a component of burnout), while personality traits showed improvements in conscientiousness and a reduction of neurotic trait. Discussion: The implications of mindful awareness and non-judgmental attitude for the teacher’s role are discussed in light of the literature attesting the links between psychological wellbeing and levels of conscientiousness, neuroticism, and burnout.

4 Jenny Gu: How do mindfulness-based interventions work?
(Jenny Gu, Clara Strauss, Rod Bond, & Kate Cavanagh)
Abstract:
Given the extensive evidence base for the efficacy of mindfulness-based stress reduction (MBSR) and mindfulness-based cognitive therapy (MBCT), researchers have started to explore the mechanisms underlying their therapeutic effects on psychological outcomes, using methods of mediation analysis. No known studies have systematically reviewed and statistically integrated mediation studies in this field. The present study aimed to systematically review mediation studies in the literature on mindfulness-based interventions (MBIs), to identify potential psychological mechanisms underlying MBCT and MBSR’s effects on psychological functioning and wellbeing, and evaluate the strength and consistency of evidence for each mechanism. For the identified mechanisms with sufficient evidence, quantitative synthesis using two-stage meta-analytic structural equation modelling (TSSEM) was used to examine whether these mechanisms mediate the impact of MBIs on clinical outcomes. This review identified moderate and consistent evidence for mindfulness, rumination, and worry, and preliminary but insufficient evidence for cognitive and emotional reactivity, self-compassion, and psychological flexibility as mechanisms underlying MBIs. TSSEM demonstrated evidence for mindfulness, rumination and worry as significant mediators of the effects of MBIs on mental health outcomes. Most reviewed mediation studies have several key methodological shortcomings which preclude robust conclusions regarding mediation. However, they provide important groundwork on which future studies could build.

5 Shashi Agarwal: Mindfulness in clinical practice: Hypertension
(Shashi K. Agarwal, New Brunswick)
Abstract:
Introduction: Hypertension is a major disease burden, worldwide, and is estimated to cause 7.5 million deaths or about 12.8% of the total of all deaths. It accounts for 57 million disability adjusted life years or 3.7% of the total. It is a major risk factor for coronary heart disease and ischemic as well as hemorrhagic stroke. Pharmacologic treatments are expensive, often unavailable or ineffective, and compliance remains low. Complementary therapies, including mindfulness, are therefore commonly used by these patients. This poster looks at the evidence based data supporting the use of mindfulness in the management of hypertension.
Methods: A comprehensive search of health databases was done. A query of PubMed revealed: ‘mindfulness’: 2975 entries dating back to 1980; ‘mindfulness meditation; 1074 entries dating back to 1982; ‘mindfulness hypertension’: 21 entries dating back to 2003. Relevant grey material was also consulted.
Results: Stress reduction techniques have shown to reduce high blood pressure, and
mindfulness studies has generated similar results. Mindful meditation induced reductions in blood pressure have been documented in adolescents, healthy adults and pre-hypertensives. Reductions have also been documented in known hypertensives. Compliance and reductions have persisted up to a year. Comorbid anxiety and depression in these patients is also reduced. Meditation affects the sympathetic nervous system, and reduces the cardiac output, heart rate, and norepinephrine levels which are increased in the early stages of elevated blood pressure.

Conclusion: Mindfulness techniques may be useful as an adjunctive treatment of hypertension.

6 Michael McIntyre: Mindful leadership training augments mindfulness, compassion and well-being
(Michael Halldorson, Micheline St. Hilaire, Dawn MacDonald, Jennifer Kornelsen, Michael McIntyre)

Abstract:
Mindful leadership training (MLT) involves an intensive 4.5-day program that provides mindfulness training specifically designed for those in leadership positions. The participants were leaders in health and human services organizations for which compassion was an articulated objective. Increases in self-compassion, compassion, mindfulness and reductions in stress were hypothesized. A longitudinal study involving four time points – pretest (T1), immediate posttest (T2), three-month posttest (T3), and six-month posttest (T4) in a repeated measures design was used. Five scales touching upon compassion were used: the Self-Compassion Scale, the Compassion Scale, and the three Fears of Compassion Scales (expressing compassion to others, receiving compassion from others, expressing compassion to the self). Mindfulness was assessed with the Five Facets Mindfulness Questionnaire (FFMQ). The Perceived Stress test was used to measure stress. For the T1-T2 comparisons, only fear of self-compassion scores were significantly different. For the T1-T3 comparisons, all five of the compassion scales, the FFMQ, and the Perceived Stress scales were significantly different. MLT, therefore, has the capacity to increase mindfulness, compassion to self and others, and reduce stress. For the T1-T4 comparisons, only the FFMQ was statistically significant. All significant differences were in the hypothesized direction. No significant T3-T4 differences were found. The data suggest that MLT can produce desirable changes in mindfulness, compassion, and perceived stress but that these need to be supported by ongoing exercise.

7 Roberto Ferrari: Point zero: A phenomenological inquiry into the seat of consciousness
(Franco Bertossa, Marco Besa, Roberto Ferrari, Francesca Ferri)

Abstract:
Does consciousness have a spatial "location" that can be scientifically investigated? Using a novel phenomenological method, when people are encouraged to explore the question introspectively they not only can make sense of the idea of their consciousness being "located," but will readily indicate its exact position inside the head. The method, based on Francisco J. Varela's work, involves a structured interview led by an expert mediator in which preliminary questions are asked of untrained volunteers about the location of objects and body parts, and then they are questioned about the location from which they are experiencing these objects. 83% of volunteers located with confidence a precise position for the I-that-perceives in the temporal area of the head centred midway behind the eyes. The same results were obtained with blind subjects (congenitally or later) and with non-Westerners. The
significance of this subjective source of the experience of the location of perception is discussed linking it to neurological correlates of self-referred conscious activities and of conscious awareness in memory. Further investigations are suggested with trained volunteers and with individuals with psychiatric disorders.

8 Stefano Poletti: Mindfulness-based stress reduction in patients with interstitial lung disease

(Giacomo Sgalla, Stefania Cerri, Roberto Ferrari, Maria Pia Ricchieri, Stefano Poletti, Margherita Ori, Martina Garuti, Gloria Montanari, Fabrizio Luppi, Kyriakoula Petropulacos, Luca Richeldi)

Abstract:
Introduction: Chronic, progressive respiratory symptoms are associated with great psychological and emotional impact in patients suffering from interstitial lung disease (ILD). This single-centre pilot study evaluated for the first time the safety, feasibility and efficacy of a Mindfulness Based Stress Reduction Program (MBSR) in a group of patients with ILD.

Method: Prospective observational study set in a university hospital ILD outpatient clinic. Nineteen patients with different ILDs were recruited 2 months prior to the start of the 8-week MBSR program and followed up for 12 months. Primary outcomes were program safety and feasibility, while secondary outcomes were changes in moods and stress (assessed by Profile Of Mood State (POMS) and Perceived Stress Scale (PSS) questionnaires), symptoms (Shortness Of Breath (SOB) and Cough And Sputum Assessment (CASA-Q) questionnaires), lung function and exercise tolerance at 12 months.

Results: Two patients (10.5%) dropped out in the observational period before the start of the MBSR intervention because of non-respiratory causes. All 17 patients who entered the 8-week MBSR program managed to complete it with an adherence average of eight sessions of nine. No adverse events related to the mindfulness training were reported. Statistically significant improvements in the POMS total score and in several individual items of POMS and PSS were observed throughout the study. However, respiratory questionnaire scores, lung function and exercise tolerance did not show a significant difference over time.

Discussion: An MBSR program appears to be safe and feasible in patients with ILD, and might affect perceived moods and stress producing a positive and lasting improvement in several stress-related negative domains. These findings pave the way to larger (possibly multicentre), randomised, controlled confirmatory trials.

9 Andrew Sayer: Nurturing Resilient Kids: Efficacy of Mindfulness Curriculum in Middle School Classrooms

Abstract:
Education policy in the United States is shifting to include parameters of social emotional learning (SEL) and executive function skills. This is occurring while, according to a 2014 study from the American Psychological Association, students in the United States are more stressed than ever before (Bethune, 2014). Schools are turning to mindfulness curriculum to combat student stress and build SEL skills. However, there is not enough research to say which mindfulness practices are most effective in classrooms. This paper details the first-year findings of a three-year study conducted to test the efficacy of a mindfulness curriculum that seeks to decrease student and teacher stress and increase academic performance. We use a mixed research methodology—our data include surveys, interviews (with teachers/students), academic grades/school suspensions, and an executive function evaluation (BRIEF test). The study takes place in two middle schools—sixteen classrooms—in Woonsocket, Rhode Island (n=242). Eight classrooms (n=128) are receiving the 40-minute,
twice per week, mindfulness classes. The other eight classrooms (n=114) function as a comparison group. Preliminary findings from interviews convey that the mindfulness classes have led to increased student focus, and decreased student stress. These findings support a positive outlook regarding the more substantive results—changes in survey responses and academic grades/suspensions—that will be included in the final paper. The outcome of this research will provide a basis to argue for expanding mindfulness classroom interventions as a cost effective means to increase academic, social/workplace, and intrinsic well being for students and teachers.

10 Sarah McKenzie: A systematic review of cultural relevance in mindfulness research
(Sarah McKenzie, Alex Kelman, Benjamin Evare, Lynn C. Waelde)
Abstract:
Introduction: A central controversy in mindfulness research is the extent to which research should conform to eastern versus western psychological perspectives. Proponents of the eastern Buddhist traditions adopt a dharma perspective that holds that mindfulness works according to eternal and universal principles, possibly discouraging investigations into diversity factors in mindfulness treatment research. This systematic review evaluates the presence of diversity factors in mindfulness intervention studies over the past 25 years. Methods: We reviewed mindfulness intervention studies from 1990-2015 to assess the extent to which diversity was considered in sample composition, treatment adaptation, and interpretation of outcomes. We also propose a framework for evaluating the quality of diversity coverage in mindfulness studies. Articles were collected using a computer search (from PsychInfo and Medline databases) based on search criteria "Mindfulness," "Meditation," "Diversity," "African American," "Asian," "American Indian," "Native Alaskan," "Pacific Islander" "Native Hawaiian," "Latino," and "Hispanic." Studies that included a significant diversity focus as defined in the paper were coded and included in this systematic review. Results: Results indicate that current research has not adequately addressed the cultural relevance and responsiveness of mindfulness in intervention studies. Discussion: Further research is needed to explore the role of culture in the applications of meditation and mindfulness interventions.

11 Marion Spijkerman: A compassion training as guided self-help for enhancing well-being: Preliminary results of a randomized controlled trial
(Marion Spijkerman, Hester Trompetter, University of Twente, Karlein Schreurs, Ernst Bohlmeijer)
Abstract:
Introduction: Although previous studies show promising effects for compassion-enhancing interventions in terms of mental health and well-being, there is need for more large-scale and methodologically sound trials. The aim of this study was to test the effectiveness of a compassion intervention as guided self-help in improving well-being, compared to a waitlist control condition. Methods: A two-arm parallel randomised controlled trial was conducted. Adults with a low to moderate level of well-being were recruited in the general Dutch population and randomised to the intervention (n=122) or a waitlist control group (n=123). The self-help intervention was primarily based on compassion-focused therapy (CFT) and consisted of 7 lessons that could be worked through in 9 weeks, with weekly email guidance. The primary outcome was well-being (MHC-SF). Secondary outcomes include depression, anxiety, stress, self-compassion, self-criticism, self-reassurance, positive and negative affect, and gratitude.
Assessments took place pre- and post-intervention. Results: The sample was predominantly female and highly educated, with a mean age of 52.9 years. The intervention group showed superior improvement on all outcome measures at post-intervention, compared to the waitlist control group. With regard to the primary outcome, a moderate effect size (Cohen's $d = 0.46$) and a significant group x time interaction ($p < .001$) was found. Effects on the secondary outcomes were small to moderate, varying between $d = 0.32$ and $d = 0.53$.

Discussion: In terms of well-being, the self-help intervention proves effective in the short term. Planned follow-up assessments will reveal whether the effects are maintained in the long run.

12 Maja O'Connor: Development of manuals for Mindfulness-Based Cognitive Therapy (MBCT grief) and Compassion Focused Therapy (CFT-grief) for Prolonged Grief Disorder following old age conjugal bereavement.
(Maja O'Connor, Christina Schlander)

Abstract:
Introduction: Losing a spouse in old age is a very distressing part of life. This loss is likely to cause prolonged grief disorder (PGD) in one out of six. Failure to recognize and treat PGD has a strong, negative effect on health, functional capacity, and quality of life. At present, no evidence-based treatment manual for PGD in elderly bereaved people is available. The aim of this project is to develop two treatment manuals for PGD.

Methods: This project presents the first of three steps in the development, testing, and dissemination of two treatment manuals for PGD. Data at the first step includes minutes from treatment sessions, focus group interviews with participants, therapist perspectives, and self-report questionnaires (on PGD, depression, and posttraumatic stress). This information is used to further improve the manuals.

Results: We here present the first part of step one which consists of:
1) Adapting MBCT with elderly bereaved people (See O'Connor, Piet & Hougaard, 2014) into MBCT-grief; testing MBCT-grief in a group of elderly bereaved people with high levels of PGD; adapting MBCT-grief based on focus group interviews etc.
2) Developing a manual for CFT-grief; testing CFT-grief in one group; adapting the manual; re-testing CFT-grief in another group; making final adjustments of CFT-grief.

Preliminary outlines of manuals for MBCT- and CFT-grief will be presented.

Discussion: We speculate that the benefits from drawing on patients’ and therapists views combined with data on symptom levels will markedly improve the research design and therapeutic outcome in the future testing- and dissemination-steps of this project.

13 Chiara Annunciata Veneziani: The protective role of dispositional mindfulness on work related wellbeing when potentially stressful events occur

Abstract:
Dispositional mindfulness seems to favour well-being in work-settings (e.g. Abenavoli et al., 2013; Jennings, 2015; Thomas & Otis, 2010). However, mindfulness benefits on work-related well-being have not yet been investigated controlling for stressful events, which usually impair well-being. The present two studies aimed therefore to test mindfulness effects on work-related well-being when potentially stressful events occur, and to investigate whether mindfulness moderated the impact of stressful events on well-being, thus playing a protective role.

Study 1: 81 Italian physicians completed a questionnaire with the Italian version (Veneziani & Voci, 2015a) of the Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003), and
measures of potentially stressful events, affective commitment (Allen & Mayer, 1990), rumination (Trapnel & Campbell, 1999), positive and negative affectivity (Watson et al., 1999), job satisfaction (Dazzi et al., 1998) and compassion fatigue (Figley, 1995). Mindfulness predicted lesser negative affect, job burnout and secondary trauma, and higher job satisfaction. Moderation analyses showed that mindfulness weakened the adverse effects of negative events on job satisfaction and secondary trauma.

Study 2: 98 Italian health-professionals completed the Italian Version (Veneziani & Voci, 2015b) of the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R; Feldman et al., 2007), measures of potentially stressful events and affective commitment, and the Maslach-Burnout-Inventory (Maslach & Jackson, 1986). Mindfulness negatively predicted all burnout components and weakened the stress effects on emotional exhaustion and depersonalization. Mindfulness may be therefore valuable in work-settings, because it both promotes work-related well-being and counteracts stress effects, which impairs well-being especially when mindfulness is low.

14 Maurice van den Bosch: Mindfulness meditation for self-awareness and stress reduction in physicians.

Abstract:
Introduction: In medical practice a high prevalence of depression and depressive symptoms among residents (30%) has been reported. This implies that the mental well-being is at risk in one third of our future colleagues. Effective strategies for preventing depression in this population are needed. [1] One of the best-known, but least applied, strategies to reduce the levels of stress in individuals is the practice of mindfulness. [2] Mindfulness is a state of being attentive to and aware of what is taken place in the present moment. Research has shown that enhancement of mindfulness through training results in a greater sense of emotional balance and general well-being. [3] In the context of stress reduction for physicians’ mindfulness may hold promise as a potential way to help prevent onset of depressive symptoms.

Methods: The core of each mindfulness curriculum is silent meditation. Mindfulness meditation focuses on breath awareness, and can be practised by individuals according to their own time schedule. Last year we have successfully introduced weekly mindfulness meditation within the department of Radiology of the hospital for physicians. Each Friday afternoon a group meditation practice is offered within the department. Besides the weekly group practice all participants are advised to integrate the mindfulness meditation technique in their daily lives.

Results: In 2015 we measured overall well-being, feeling of safety, and work satisfaction with a structured questionnaire (nominal 1-100% scoring range) among employees and an overall increase from 81% to 91% was observed for work satisfaction, overall well-being was scored as 90%, and feeling of safety was reported by all employees who completed the questionnaire (100%).

Conclusion: Based on the results of previous studies and our own experience we suggest that mindfulness should become an integral part of the training of physicians. It will strengthen self-awareness, facilitate in coping with stressful situations, and may reduce the occurrence or relapse of depressive symptoms in residents

15 Abigail Millings: Mindfulness and attachment security: A systematic review
(Abigail Millings, Jodie Stevenson, Lisa-Marie Emerson)

Abstract:
Introduction: Attachment security is recognised as a factor that might facilitate mindfulness, but the relationship between these two important constructs remains undefined. This
systematic review presents research detailing the relationship between attachment orientation and mindfulness.

Method: Based on PRISMA guidelines, databases of published studies and thesis manuscripts (including PsycArticles, PsycInfo, PubMed, Psychology & Behavioral Sciences Collection, and Proquest) were searched using terms ‘attachment’ AND ‘mindfulness’. This search yielded 10238 records, 70 of which were duplicates. Inclusion criteria (e.g. reporting on the relationship between attachment orientation and mindfulness) were applied.

Results: Thirty-six papers met the inclusion criteria. Most studies (n = 26) were conducted in the US. Nine studies focused on the effects of intervention or experimental manipulation. Thirty-two studies reported the relationship between attachment and mindfulness in individuals while 6 examined this relationship in couples. Eighteen papers reported 20 studies in which a significant, negative, relationship was found between attachment anxiety and mindfulness. Fifteen papers reported 16 studies in which a significant, negative relationship between attachment avoidance and mindfulness was found. The sub-dimensions of mindfulness measured and found to be associated with attachment varied across studies. Nine papers reported the effects interventions had on attachment and mindfulness. The kinds of interventions, measures, and thus findings reported, were variable.

Discussion: The findings suggest a robust relationship between attachment orientation and mindfulness, which will be discussed in relation to attachment and mindfulness theory. Recommendations for future research will be made on the basis of limitations apparent in the currently available literature.

16 Mariagrazia Strepparava: Mindfulness and emotion regulation: the golden pot against stress and burnout in nurses
(V. Salvarani; S. Ardenghi; P. Blasi, M. G. Strepparava)

Abstract:
Introduction: Many researches have found that mindfulness practice may reduce anxiety, depression and protect health professionals against work-related stress and burnout. A related question is how mindfulness is related to empathy and emotion regulation. In this study we explore the relationship between the mindfulness profile with stress, burnout, empathy and emotion regulation in a sample of Italian nurses.

Method: A sample of 42 nurses working in emergency room in different hospitals in the north of Italy, completed the Five Facet Mindfulness Questionnaire (FFMQ), the Interpersonal Reactivity Index (IRI), the Maslach Burnout Inventory (MBI), the General Health Questionnaire (GHQ) and the Difficulties in Emotional Regulation Scale (DERS).

Results: Nurses who have higher level of “acting with awareness” and “non-judging of inner experience” facets of Mindfulness, show lower level of stress and burnout, mostly on the subscales “Emotional Exhaustion” and “Depersonalization” and show higher level of emotion regulation. There is no gender effect nor in age or hospital experience; correlations between mindfulness base-level and differences in emotion regulation competencies and strategies will be presented.

Discussion: Nurses working in emergency room are exposed to higher level of work-related stress and burnout than other health professionals; the ability in applying positive emotion regulation strategies and some mindfulness facets are protective factors; therefore mindfulness-based training should be added to nurse curriculum, as well as training in emotion regulation strategies, to help students to develop a set of basic skill to promote well-being and resilience in a stressful working environment.

17 Mara Mettola: Mindfulness, sport and metacognition
Abstract:

Mindfulness is defined as ‘an open-hearted, moment-to-moment, non judgmental awareness of one’s own self and of the world’ (Kabat-Zinn, J., 2005).

Nowadays mindfulness techniques are becoming more and more appreciated in the sport psychology field as a tool for athletes to reach better awareness of one’s internal states, the ability to describe them, to improve the ability of staying focused and of directing one’s attention towards task-relevant stimuli, and overall to improve athletes’ performance (Gardner, F. L., & Moore, Z. E., 2004).

The aim of the present study is to propose a model that argues for the role of mindfulness in positive reappraisal coping in the sport context. Positive reappraisal is a critical component of meaning-based coping that enables individuals to adapt successfully to stressful life events. Mindfulness, as a metacognitive form of awareness, involves the process of decentering (i.e., a shifting of cognitive sets that enables alternate appraisals of life events, such as sport competition). Metacognition (Semerari, A. et al., 2003) refers to a broad set of cognitive and affective skills, which allow people to identify mental states, reason about them, and ascribe them to themselves or others. The paper reports results from a study with 8 athletes, who followed a 3-month-weekly mindfulness training and whose metacognitive skills were tested pre- and post-training. Results show significant improvements in athletes’ metacognition and support the initial idea that mindfulness training can have a positive influence in metacognitive skills involved in sport reappraisal and coping strategy.

18 Matthew D. Hanson: Anxiety, attention, and mindfulness following focused attention and open-monitoring mindfulness meditation

Theory postulates two different types of mindfulness practices (open-monitoring and focused attention), and some preliminary data suggests that each differentially affects mood and cognitive processes. The study sought to evaluate the two types of mindfulness compared to a control group on mood and attention, specifically sustained attention versus attentional shift. Using randomized blocks, students (N = 90) were assigned to engage in FA, OM, or a nonmindful control condition. Prior to (T1) and after (T2) the mindfulness and control activities, participants completed questionnaires assessing state anxiety, attention, and state mindfulness. Analyses revealed a marginal main effect of time, F(5, 83) = 2.22, p = .059, and a significant interaction between time and condition, F(10, 166) = 2.43, p = .010. Contrasts suggest that anxiety significantly decreased from T1 (M = 1.51, SD = .50) to T2 (M = 1.42, SD = .48), F(1, 87) = 6.38, p = .013. Additionally, the results revealed a significant interaction between time and condition on the state mindfulness measure, F(2, 87) = 4.95, p = .009, and orienting attention, (OMT1 = 43.29 (5.51); OMT2 = 46.65 (6.26) ; FAT1 = 41.68 (5.51) ; FAT2 = 44.24 (6.26) ; ControlT1 = 56.19 (5.51); ControlT2 = 40.49 (6.26)), F(2, 87) = 3.13, p = .048. Results suggest that FA and OM mindfulness do not distinctly differ from a control condition on anxiety, attention, or state mindfulness. However, the ability to orient attention to a stimulus increases after FA and OM mindfulness, and decreases after a control.

19 Emilia Trapasso: Mindfulness-based Connection with Nature

Evidence suggests that living in an urban environment, with limited access to green space can
have a detrimental effect on your stress levels and mental health. Research has shown how moving to an area with urban green space could provide health benefits, however little is understood regarding the mechanisms behind this green space connection. This is particularly salient when considering individuals living in areas of socioeconomic deprivation, where green space may not be in the immediate proximity. A plethora of research has been conducted surrounding mindfulness-based interventions, providing positive evidence for reducing stress levels and improving mental health. To maximise health benefits individuals could adapt their personal experience to mindfully connect with the natural environment, which may prove particularly beneficial for this population. Thus, a mindfulness-based intervention in a green space or natural environment could have additional benefits to improving mental health for those living in areas of deprivation.

The poster will provide an overview of the current research surrounding mindful connection to nature and how this can reduce stress levels whilst also showing improvements for mental health and stress levels, for those living in areas of deprivation. Furthermore it will provide an overview of my PhD project, which includes a mindfulness-based intervention and will be conducted in a natural environment within areas of deprivation. The intervention will focus on the relationship between deprivation and chronic stress, investigating whether mindful contact with nature significantly improves psychological wellbeing, when compared to a non-mindfulness based active control intervention in the natural environment.

20 Zaffie Cox: The effect of longitudinal short-meditation interventions on the cognitive alerting network
(Zaffie Cox, Dinkar Sharma)
Abstract:
Introduction: Research shows that an improved ability to maintain an alert state, that is a readiness to engage in attentional processing, arises in long-term meditators. This paper extends this finding, demonstrating improved vigilance in novices using short meditation interventions.
Method: We used a longitudinal design (1 pre-test session, 8 sessions x 8 minutes over 4 weeks) which was completed by 57 undergraduate novices. Each session, other than the pre-test session, contained an intervention (body scan meditation vs. mindful colouring vs. video watching) followed by an Attention Network Test (ANT), as well as mood and mindfulness state questionnaires.
Results: A significant interaction was found between groups in their ANT Alerting scores from pre-test to post 8th intervention (F (2, 54) = 3.17, p = .050). The meditative groups’ alerting scores remained fairly stable but both the control groups’ scores increased on the final test meaning that they took longer to respond. There was also a significant interaction between Mindful Attention Awareness Scale scores pre- and post- individual interventions (F (2, 52) = 3.21, p = .049) with the meditation and colouring groups increasing their mindfulness scores compared to a reduction in the video group score.
Discussion: Results suggest that even short mindfulness interventions can positively impact individuals’ abilities to maintain higher levels of attentional alertness and vigilance in certain tasks. However, the duration of these effects remains unclear.

21 Emanuela Poggioli: Mindfulness education: actualization of "Gaia Project" at preschool
(Emanuela Poggioli, Nitamo Federico Montecucco)
Abstract:
The “Gaia Project” is a global mindfulness and psychophysical health education developed by
the Villaggio Globale di Bagni di Lucca association, favored by UNESCO, supported and funded by the Ministry of Labor and Social Policy. The beneficiaries are children with special attention to destitute and at-risk youth. 104 children from 3 to 6 years old have participated at 12 weekly meetings of 20-30 minutes each, characterized by soft energetic exercises yin and yang, body scan, moments of sharing their experiences and drawing. At the end of the experience the teachers report that they observed some positive effects on children such as a major capacity of body and emotional perception, major attention span on the assignments and major capacity of group cohesion. The most encountered difficulties were observed in staying still and keeping the eyes shut. The substantial appreciation of the initiative and the observed positive effects shows the positive potential within the schooling path, since the preschool. It’s hypothesized that by extending the educational path the results will improve and stabilize. This could be the object of investigation and in-depth analyses for future studies.

22 Federica Farina: Mindful disposition, rumination and insomnia
(Federica Farina, Barbara Barcaccia, Feliciano Lizzadro, Antonino Raffone, Giacomo Della Marca, Lucia Calabrese, Francesco Mancini, Nicola Petrocchi)
Abstract:
Introduction: Insomnia, defined as the subjective inability to get satisfactory sleep, is a distressing and invalidating condition impinging on daily functioning, compromising social relations and working performance. Mindful disposition, and the capacity to let go and non-striving may facilitate cognitive and physiological de-activation implied in falling asleep (Garland et al., 2013). This might be particularly relevant for individuals with insomnia, who struggle to disengage from their thoughts, memories, mental images and sensations.
Method: 101 postgraduate students filled in the FFMQ (Five Facets Mindfulness Questionnaire), the ISI (Insomnia Severity Index), the PSQI (Pittsburgh Sleep Quality Index), the PSWQ (Penn State Worry Questionnaire), the RRS (Rumination Response Scale). Correlations, regression and mediation analyses with bootstrapping procedure were performed.
Results: Results show that the mindfulness facet more significantly related to both insomnia severity and quality of sleep is non-judging:
1. ISI (insomnia severity) is negatively correlated with Act and Nonjudging.
2. PSQI tot. (quality of sleep) is negatively correlated with Act and Nonjudging.
3. PSWQ is negatively correlated with Act, Nonjudging and Nonreact.
4. RRS is positively correlated with Observe, negatively correlated with with Act and Nonjudging.
Mediation analysis shows that rumination (RRS) fully mediates the impact of non-judging and act with awareness on both measures of insomnia severity (ISI) and quality of sleep (PSQI).
Discussion: In the present study we explored the association between trait mindfulness, sleep quality, insomnia severity, worry and rumination in a sample of graduate students. Clinical implications of these results will be illustrated.

Posters – Friday May 13

1 Helena Wallenberg-Lerner & William E. Lee: Comparing perceived opportune times to address afflicitive emotions during conflict: A mindfulness pilot study
(Helena Wallenberg-Lerner, William E. Lee)
Abstract:
Different types of interactions and interventions in afflictive emotions (e.g., anger, anxiety, guilt, sadness) pertaining to interpersonal relationships have been frequently investigated by numerous researchers (Bach, 1965; Frankl, 2014; Gottman, 2015; Kabat-Zinn, 1994, Lederer & Jackson, 1968; Murstein, 1977; Tavris, 1989; Wachs & Cordova, 2007). No research currently exists that identifies when it is most opportune to address afflictive emotions in a relationship, nor does any research shed light on the role that mindfulness practice might play in determining differences between individuals living in relationships. The study intends to explore the extent to which individuals experience timing as an important element for sharing afflictive emotions with a partner in order to contribute to emotional stability, and whether there is a difference between these individuals’ perceptions depending on whether they practice mindfulness or not. The research process for this study was two-fold. The first step included the development and administration of a questionnaire to elicit responses about perceived importance of timing of shared emotional affliction by individuals practicing or not practicing mindfulness. In the second step, obtained perspectives from individuals in relationships in both settings. The study intends to answer the following questions: 1) When do couples perceive the most opportune time to address emotional afflictions? 2) Are there differences in these perceptions between practicing and non-practicing mindfulness couples? An instrument will be administered to elicit responses to perceived best opportune time to address emotional afflictions, as well as a comparison between practicing and non-practicing individuals in relationships. Keywords: Afflictive Emotions, Opportune Timing, Couples, Mindfulness.

2 William Lee: Mindfulness and the object-background problem (visual and auditory analysis): a pilot study
(William E. Lee III, Helena Wallenberg-Lerner, Alexander Lerner, Jennifer Bugos)
Abstract:
Introduction: The object-background problem in human visual perception is well-known. Given a visual scene, subjects will usually focus on a specific object, paying significantly less attention to or being less aware of the background. This is also true regarding sound processing. We hypothesize that mindfulness practitioners have more awareness of the background than non-practitioners for both unfamiliar and familiar scenes. We further hypothesize that positive emotional states enhance such awareness and negative emotional states mitigate any such awareness. Methods: Subjects consisted of 18-30 and 55+ year old non-practitioners and practitioners (either 1-3 or 5+ years practicing). A questionnaire probed several areas, including: general awareness of the visual and acoustic background during a typical day; 2) background awareness when encountering new scenes; and 3) background awareness during positive mental states (happiness) and negative mental states (anger or depression). Five point Likert scales were employed. Basic demographics were also gathered, including general familiarity with and (as applicable) length of time practicing mindfulness. Results: Mindfulness practitioners are generally more aware of the background as they encounter various visual and auditory scenes, both familiar and unfamiliar. This awareness increases as length of time practicing increases. Also, the older group had more awareness than the younger group (both practitioners and non-practitioners). Negative emotional states (e.g., anger) significantly reduces background awareness in all groups where positive states did not display a significant increase in awareness.

3 Nicolas Bassan: Mindfulness meditation enhances creativity
Abstract:
Introduction: The aim of this research was to better understand the effects of mindfulness meditation on creativity, by studying its effects on attention as well as the relationship between attention and creativity. This relationship may be understood with reference to the concept of flow, which describes a total orientation of attention on the task to unleash creativity within individuals (Csikszentmihalyi, 2006). Since one of the main effects of mindfulness on attention is the reduction of mind-wandering distraction (Barboszcz, 2012), this could explain the improvement of creativity.
Methodology:
Participants: Eighteen individuals who followed an eight-week Mindfulness Based Intervention (MBI).
Procedure: Participants had to take a creativity (EPOC) and concentration (STABILO) test before (t1) and after (t2) the MBI. The creativity assessment was composed of a writing exercise generating two scores: divergent and convergent thinking.
Results: Results showed a positive effect of mindfulness on both creativity (+23%) and concentration (+22%). The correlation between the scores of convergent thinking and concentration (r = 0.45) could illustrate the link between attention and creativity.
Conclusion: Our participants improved their creative skills under constraint (convergent thinking), meaning that after the mindfulness based intervention individuals used these constraints as a basis for their creative process rather than having them play an inhibitory role. As a consequence, they could also be more open to their intuitions. Thus, mindfulness could be proposed as a tool for organizations and individuals seeking to enhance their creative competencies.

4 Shian-Ling Keng: Do trait mindfulness and self-compassion moderate the relationship between gender nonconformity and psychological functioning?
(Shian-Ling Keng, Kenny Liew Wei Lun)
Abstract:
Much research has established a negative association between gender nonconformity (GNC) and psychological well-being. There is comparatively limited research however on protective factors, or stress buffers that may attenuate the link between GNC and psychological well-being. The present study examined trait mindfulness and self-compassion as potential protective factors of the negative effects of gender nonconformity on psychological functioning. A community sample of 206 participants based in Singapore (mean age: 23; age range: 18-63) were recruited and completed an online survey anonymously. The survey included measures of current GNC, sexual orientation, trait mindfulness, self-compassion, depression, anxiety, and well-being. Controlling for age and sexual orientation, current GNC positively predicted depressive symptoms, β = -.48, p < .001 and anxiety symptoms, β = -.34, p < .001, and negatively predicted personal well-being, β = .46, p < .001. Trait mindfulness was found to moderate the relationship between GNC and anxiety symptoms, β = -.004, p < .05. Further analyses using the Johnson-Neyman technique revealed that low trait mindfulness predicted a positive association between GNC and anxiety symptoms, whereas at high levels of trait mindfulness, GNC negatively predicted anxiety symptoms. Self-compassion moderated the relationship between GNC and personal well-being, β = -.30, p < .05. Particularly, low self-compassion predicted a negative relationship between GNC and personal well-being; whereas high self-compassion predicted a positive relationship between the two variables. While correlational in nature, the findings provide preliminary support for the role of trait mindfulness and self-compassion as potential buffers against negative psychological effects of
being gender non-conforming.

5 Shashi Agarwal: Mindfulness in clinical practice: Pain

Abstract:
Introduction: Low back pain is experienced by 76% of the population each year. It imposes a significant individual, societal and economic burden. Complementary therapies are commonly used by these patients. Mindful meditation is gaining acceptance as a valid complementary therapy in chronic pain reduction. This poster looks at evidence based data supporting its adjunctive role in the management of pain.

Methods: A comprehensive search of health databases was done. A query of PubMed revealed: ‘mindfulness’: 2975 entries dating back to 1980; ‘mindfulness meditation’ :1074 entries dating back to 1982; and ‘mindfulness pain’ 312 entries dating back to 1982. Relevant grey material was also consulted.

Results: Mindfulness has helped patients with acute pain and other bodily distress. It increases pain threshold and improves pain acceptance. Its effectiveness has been documented in chronic low back pain, tension headache and chronic headache. It also reduces anxiety and depression in patients with chronic pain. Relief has also been reported in post herpetic neuralgia. Mindfulness meditation-induced pain relief occurs through specific brain mechanisms, specifically activation of the orbitofrontal and cingulate cortices.

Conclusion: Mindfulness has generally been defined as: ‘the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to things as they are’. Mindfulness therapy may have a potential to significantly improve function, quality of life and symptoms, prevent a social decline, and reduce societal costs in patients with pain. Mindfulness techniques are easy to learn and should be integrated into clinical medicine.

6 Philipp Röthlin: Effects of an MBSR course on rumination and stress: the case of a female elite curling player
(Philipp Röthlin, Daniel Birrer)

Abstract:
Being mindful means to intentionally pay attention to the experience of the present moment in an accepting and non-judgmental way (Kabat-Zinn, 1982). Mindfulness based interventions such as MBSR show desirable effects on several indicators of psychological health (Keng, Smoski, & Robins, 2011). In the past few years, the role of mindfulness in the context of sport has been discussed and investigated (Birrer, Röthlin, & Morgan, 2012; Sappington & Longshore, 2015).

This study presents the case of an elite female curling player (26 years, 12 hours of athletic training per week). She completed measures of mindfulness, rumination, and psychological stress before and after an eight week MBSR course as well as at a three months follow up. She also logged her weekly amount of mindfulness practice during the whole time period.

Visual analysis showed an increase in mindfulness and a decrease in rumination and psychological stress from pre to post-MBSR course. However, the effects had washed out at three months follow up. Time of mindfulness practice per week (3 hours during the course, 0.25 hours after the course) might explain these changes, indicating that mindfulness practice leads to desirable effects – as long as it is practiced regularly.

These results are in line with studies showing that levels of mindfulness are associated with continued practice in the present, rather than with accumulated practice over years (Bergomi, Tschacher, & Kupper 2015). Based on the presented case, the possibilities and challenges of applying mindfulness interventions in an elite sport context are discussed.
**7 Mirjana Prpa: Sonic cradle: Immersive interaction design combining breathing and neurofeedback to foster focused attention meditation on breath**
(Mirjana Prpa, Denise Quesnel, Jay Vidyarthi, Alexandra Kitson, Bernhard E.)

**Abstract:**
Mindfulness meditation is widely recognized for its psychological and physical well-being benefits. However, entering and maintaining a mindful state and increasing one’s self awareness is often challenging, especially for novice meditators.
We are designing a system to help novice meditators with these challenges by providing real-time neuro- and biofeedback generated from EEG and respiration data. This design builds upon “Sonic Cradle” (Vidyarthi & Riecke, First International Conference on Mindfulness 2013, International Journal Of Human-Computer Studies 2014), an exploratory HCI paradigm designed to foster meditative attentional patterns as a user progressively shapes a soundscape with their breath.
While this original design proved effective in helping users reach a state comparable to mindfulness meditation, participants reported that the soundscape could also occasionally distract them away from their breath. To address this, we integrate EEG data to detect when users have achieved a state of focused attention, and gradually reduce soundscape saliency.
Conversely, when EEG data reveals a state of distraction, the soundscape becomes more salient, increasing its ability to cue users back to their breath with curiosity as proved to be effective in Vidyarthi & Riecke (2013). This playful interaction invites users to focus on their breathing with curiosity and non-judgment when they are exhibiting a state of distraction. Once they achieve focused attention, the interaction paradigm fades out, allowing users to meditate undisturbed.
We guide design decisions through extensive literature review and iterative evaluation with experienced and novice meditators, including a mixed-methods study to test our design hypothesis and guide future development.

**8 Alexis Ruffault: Randomized controlled trial testing the effect of autonomy-supportive guidelines for autonomous practice in a Mindfulness Based Coping with University Life (MBCUL) program among university students**
(Alexis Ruffault, Rébecca Shankland, Lionel Strub, Damien Tessier)

**Abstract:**
Introduction: Classical Mindfulness Based Interventions (MBIs) prescribe to engage in 45 minutes autonomous practice per day. Yet, following Self-Determination Theory, it might be more efficient to increase intrinsic motivation through individual decision-making in what concerns homework. The aim of this study was to measure the effect of autonomy-supportive practice guidelines on weekly practice time among university students taking part in an 8-week (2 hs/wk) Mindfulness Based Coping with University Life (MBCUL) program.
Method: Thirty-eight students were randomly assigned to one of the following conditions: MBCUL associated with autonomy-supportive guidelines (MBCUL+SDT; n=8), MBCUL (n=10), and waiting-list (WL; n=20). Perceived stress, anxiety, depression, satisfaction with life, and mindfulness were measured at baseline and post-program. In the experimental groups, motivation to practice was measured after 4 weeks in order to measure the type of motivation (intrinsic-extrinsic). Time spent practicing at home was measured daily using a diary.
Results: The MBCUL+SDT group was significantly more motivated practice at home than the MBCUL group. The MBCUL+SDT group reported more autonomous practice (76 minutes per week) than the MBCUL group (54 minutes per week). However, no significant difference was observed between these groups for the other variables. Compared to baseline, both experimental groups reported significantly lower perceived stress and higher mindfulness
skills at post-intervention.
Discussion: MBCUL appears to be effective for stress management in university students. Small sample size may have weakened the statistical power of the comparisons between the two experimental groups. Further research could focus on motivational determinants of autonomous practice in MBIs.

9 Graham Meadows et al.: Mindfulness-based cognitive behavior therapy and depression: a policy translation challenge considered in Australia
(Graham Meadows, Anthony Cichello, Frances Shawyer, Joanne Enticott)
Abstract:
Introduction: Mindfulness-Based Cognitive Therapy (MBCT) has an extensive research base supporting its value in helping people who have had major depressive episodes reduce their subsequent experience of this problem. MBCT features in multiple nationally recommended treatment pathways for disorders. However, often there is relatively poor local availability of MBCT so that it could be offered to those who could benefit from it. The process whereby key policy makers and incentive systems could be influenced towards changing this can be considered as a project.
Method: We apply here a conventional project analysis tool, the 'Strengths, Weaknesses, Opportunities and Threats (SWOT)' analysis to this challenge considered in Australia.
Results: MBCT is supported by recommendations from the Australian National Depression Initiative and in Australasian professional guidelines. There is good Australian evidence for effectiveness. However availability of training, especially advanced training, is presently patchy across the country and overall not adequate to meet the indicated supply. The Australian funded public healthcare system is not well designed for delivery of group-based interventions such as is conventional for MBCT; there may be untested scope to influence private healthcare insurers. While occasionally there are invitations for submissions to influence Government policy and there is scope for positive action from Professional Colleges, funding constraints and conservatism regarding funding somewhat unconventional treatments may hold back progress.
Discussion: Suggested continuing actions include persistent lobbying of national and private insurers, research on alternative methods of delivery and actions by professional colleges to promote MBCT as mainstream. International implications will be considered.

10 Jenny Gu: Examining the underlying dimensions of compassion using self-report measures
(Jenny Gu, Clara Strauss, Kate Cavanagh, Ruth Baer, & Willem Kuyken)
Abstract:
Lever-Taylor et al. (under review) recently defined compassion as a cognitive, affective, and behavioural process consisting of five elements: Recognising suffering, understanding the universality of suffering in human experience, feeling moved by the person suffering and connecting with the distress, tolerating uncomfortable feelings aroused so that we remain open to and accepting of them in their suffering, and motivation to act or acting to alleviate suffering. No studies have yet empirically examined whether this five-element definition holds using self-report methods. This is an essential first step to deepening our understanding of compassion, developing a high quality measure, and furthering research in this field. The current study aimed to empirically explore and validate the underlying factors of compassion and consisted of three stages. Stage 1 involved a systematic consultation with expert groups to review items from existing self-report measures of compassion and generate additional items. Stage 2 aimed to identify the underlying conceptual structure of compassion in a
sample of students using exploratory factor analysis (EFA). Stage 3 aimed to validate the factor structure found in Stage 2 in an independent student sample using confirmatory factor analysis. Five factors emerged from the EFA in Stage 2 which supported Lever Taylor et al.'s five-part definition and CFA findings from Stage 3 provided reasonable empirical support for a five-factor model of compassion. However, items from existing measures of compassion are limited and this calls for the development of a new psychometrically-robust measure.

11 Oleg Medvedev and Richard Siegert: Measuring mindfulness at interval level: Transformation of the Five Facet Mindfulness Questionnaire using Rasch approach.

Abstract:
Introduction: Significant contribution of mindfulness to individuals’ health and well-being requires precise mindfulness measures for accurate assessment of psychological and cognitive changes in individuals undergoing mindfulness-based interventions. The widely used measure of trait mindfulness the 39-item Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) including: Observing, Describing, Act With Awareness, Non-Judging and Non-reacting to inner experience has shown acceptable psychometric properties but no efforts were made to increase precision of its subscales in discriminating between trait levels.
Method: Rasch analysis was conducted to enhance the psychometric properties of the FFMQ using sample of 296 participants.
Results: The best fit to the Rasch model was achieved for all five FFMQ subscales after minor modifications that involved combining locally dependent items into subtests and removing two items that critically affected the estimates.
Discussion: Findings support structural validity of the FFMQ subscales and allow researchers and clinicians transform ordinal FFMQ responses to interval level data suitable for parametric statistics, which increases measurement precision. Conversion tables are included here for convenience and can be used without any modifications of the original FFMQ response format. Further implications of these findings are discussed.

12 Robert Brumarescu: Dispositional mindfulness and emotion-related attentional bias

Abstract:
Introduction: Several studies show an attentional bias for emotionally salient stimuli, such as in the emotional Stroop task. This attentional bias can be affected by conditions such as mood and anxiety. Here we investigate the relationship between performance in an emotional Stroop task and dispositional mindfulness facets. Emotional Stroop task tests participants’ ability to suppress interfering information and to focus and direct their attention. These skills are characteristic of good cognitive flexibility.
Method: A sample of 102 participants (age range from 20 to 57) was involved in Emotional Stroop tasks. We presented colored faces expressing anger, sadness, joy or with a neutral valence. Both accuracy and response time were stressed and recorded. Attentional bias was provided as the difference between performance with emotional and neutral faces in the task. We also measured participants' dispositional mindfulness by means of the Five Facets Mindfulness Questionnaire (FFMQ).
Results: To examine the relation between mindfulness and attentional performance a correlational approach was employed. Correlation matrix including all correlations between FFMQ sub-scales scores with all measures of attentional performance. Positive correlations were found between the accuracy (sad and angry face) with act with awareness dimension. As
we hypothesised, we found positive correlations between FFMQ sub-scales and accuracy with sad face. Interference effect for happy and sad face was negatively correlated to the non reactivity scale. Finally, we found positive correlations between the Inverse efficiency score (IES) and the non reactivity sub-scale.

Discussion: The current study provides correlational evidence that mindfulness traits are correlated with lower interfering effects of emotional pictures and that self-reported mindfulness scores would correlate positively with attentional performance. Mindfulness’ skills allow disengaging attention from emotional stimuli and focusing on the task. According to the literature, high levels of mindfulness are correlated with high processing speed, good attentional and inhibitory control (Moore and Malinowski, 2008). As suggested by our results on Stroop accuracy, mindfulness’ ability could reduce errors across measures, suggesting greater attentional control, linked to inhibitory control, as well as cognitive flexibility. In conclusion, we recommend that future studies focus on evaluating which facets of mindfulness could best predict inhibitory attentional control.

13 Barbara Barcaccia: Mindfulness for Obsessive-Compulsive Disorder: review of literature and clinical implications

Abstract:
Introduction: In recent years, mindfulness has been applied to a number of mental disorders. To date, no randomized clinical trials (RCTs) have been published on Mindfulness-Based Interventions (MBIs) for Obsessive-Compulsive Disorder (OCD). Given the inability in OC patients (pts.) to let go of thoughts, mental images, sensations, once they arise, MBIs might be particularly recommended for OCD. However, for the same reason, mindfulness practice could be particularly challenging for OC pts.

Method: A literature search and analysis was conducted to identify the studies on MBIs for OCD. The literature search was performed using the Scopus, PsycINFO and EBSCO electronic databases with the criteria: 1)“mindfulness” AND “obsessive-compulsive”, or “obsessive”, or “compulsive”, limited to article title, abstract, and keywords in with the dates from 1990 to 2015. Studies were required to be published, or a manuscript in press, and to be in either English, French, Spanish or Italian.

Results: Despite a paucity of rigorous studies on the effectiveness of MBIs for OCD, data show that they may facilitate Exposure with Response Prevention (E/RP), an evidence-based albeit challenging psychological treatment for OCD (Strauss et al., 2015). Some studies explored the feasibility of MBIs for OC pts. (Hertenstein et al., 2012), with good results.

Discussion: Mindfulness could be particularly effective to tackle the peculiar features of OCD. Nevertheless its use could be very challenging for OC pts., given the urge to act upon their thoughts, mental images and sensations. Specific adaptations of the typical MBIs for their use with OC pts. will be suggested.

14 Catherine Spann: Affect, Arousal, and Attention: The Impact of Brief Mindfulness and Mind Wandering Interventions with Children

Abstract:
Although long-term mindfulness practice has shown to increase attention among children, no studies have examined whether brief mindfulness interventions are beneficial. The current study examined whether a brief (i.e., one-time, four-minute) intervention was beneficial for affect, arousal, and attention.

A total of 192 children ages 7-12 (M = 9.79, SD = 1.63) were recruited for this experiment. The study used a between-subjects, pre-post experimental design, where children completed measures of affect, arousal, and attention before and after the intervention. Children were
randomly assigned to one of three interventions: mindfulness, mind wandering, or silent reading. Affect and arousal were self-reported using the self-assessment manikin and attention was measured using the Dimensional Change Card Sort test administered on an iPad.

Gender differences existed across affect and attention. Girls demonstrated significantly higher affect before (p = .002) and after (p < .001) intervention. Girls also demonstrated significantly higher attention before (p = .02) and after (p = .001) intervention. There was no effect of intervention type on affect (p = .51) or arousal (p = .36). Critically, there was a significant effect of intervention type on attention depending on the child’s gender, F(2, 184) = 3.37, p = .04, np2 = .04. Specifically, girls demonstrated higher attention after mindfulness and lower attention after mind wandering, whereas boys showed lower attention after mindfulness and higher attention after mind wandering.

Results indicate that a brief intervention is helpful to buffer against the negative effects of attentional depletion among children and these effects may depend on the child’s gender.

15 Concetta Gardi: Changes in salivary cytokine production in subjects attending a 3-day mindfulness retreat: a pilot study
(Gardi C., Stringa B., Rossi S., Giommi F.)
Abstract:
Introduction: Mindfulness meditation can alter neural, behavioural and biochemical processes with beneficial effects on brain and body, but there have been few studies of its effect on cytokines, the key regulators of immunity. Therefore, we explored the impact of a 3-day intensive residential mindfulness meditation on cytokine profile, cortisol levels and psychological outcomes. In addition, we investigated whether awareness, a quality developed by meditative practice, increased.

Methods: Retreat participants (n = 60) meditated for 8 h daily for 3 days and were compared with an active control group (n = 60) matched for age, sex and body mass index. Retreat participants received instruction in mindfulness meditation techniques. Psychological measures and saliva sampling were assessed pre- and post-retreat. Cytokine levels were determined by means of Bioplex Assay and cortisol was measured by an Enzyme Immunoassay kit.

Results: Mindfulness practice significantly reduced salivary levels of cortisol and inflammatory markers (including IL-6 and IL-8), while induced elevation of anti-inflammatory cytokine IL-10. In the retreat group, an increase in awareness and a decrease in perceived stress and anxiety also were observed. The control group did not exhibit such changes and showed only a decrease in perceived stress level.

Discussion: This is the first study to link intensive mindfulness practice and positive psychological change with inflammatory status. Our preliminary findings suggest that the practice of mindfulness not only may help mitigate psychological distress but also contribute to improve some physical biomarkers.

16 Vanessa Dias: Brief Mindfulness Exercise Reduces Age Bias in a Recruitment and Selection Task
(Vanessa Dias, Sibila Marques, Hannah Swift)
Abstract:
‘Age’ is a primary social category which we recognise automatically in others. This facilitates social interactions, but also leaves people vulnerable to ageism. Ageism exists in organizational decisions such as recruitment and selection (R&S), favouring younger over older candidates. This could be because these processes rely on people’s perception of reality,
which can be biased by automatic cognitive processes. To counter this, researchers have used mindfulness to reduce negative bias. This study tested the impact of a brief mindfulness exercise in a R&S task, with a 2 (mindfulness vs control) x 2 (CV with age vs CV with no age) between-subjects design. Participants (N=80, x\text{age}=32 years old) were randomly assigned to each condition: 50% did the mindfulness exercise first, while the other 50% began with the selection task, having to choose between candidates for a job interview. We expected that in control condition participants would choose the older candidate (the ‘best’ fit) when age was not present and the younger candidate when age was present. In mindfulness condition, participants would choose the older candidate, either if age was present in the CV or not. An interaction effect was found (F (1, 79) =15.00, p < .001, \eta^2=.17) and, as expected, age seems to be an important cue when selecting candidates. In line with previous studies, mindfulness counteracted automatic age-bias, since in the mindful condition participants showed preference for the ‘best’ candidate, despite the cue ‘age’. Future studies need to clarify how ageism at work can be reduced by mindfulness.

17 Shu-Yu Kuo: Preliminary Assessment of Mindfulness Strength Content – Entropy
(Jia-Chyi Wu, Shu-Yu Kuo)
Abstract:
Introduction: A preliminary investigation on the mindfulness strength contents measurement (mindfulness entropy) by way of the realization from information content measurement is proposed.
Method: Mindfulness is defined as a receptive attention to and awareness of present events and experiences, that is rooted in the fundamental activities of consciousness: attention and awareness. In this study, we have tried to apply key aspects of consciousness directly associated with mindfulness that are tractable to quantitative measurement and carry out a preliminary analysis of the strengths and limitations.
Results: The realization of information measurement is by probability distribution, e.g., for a bipartition distribution, \( H(p) = -p \log p - (1-p) \log (1-p) \). We define the associated consciousness contents as mindfulness complexity: \( C_m \). Precise calculation of \( C_m \) requires the evaluation of mutual information across all possible bipartitions, which can become computationally excessive for large systems. However, we can consider simply those that divide the system into sets containing one single element as amenable approximation to \( C_m \).

The mutual information, \( I(A; B) \), between two subsets A and B, defined by a single bipartition, measures the uncertainty about A that is accounted for by the state of B is given as \( H(A)+H(B)-H(AB) \), where H is the informational entropy. Effective information is calculated as the mutual information across a partition in the case where outputs from one subset have maximum entropy.

discussions: The study showed that no single measure fully captures the multidimensional complexity. It seems possible to characterize the fundamental basis of mindfulness to the contents of consciousness, in which we may measure the information strength in mindfulness.

18 Generós Ortet: The non-judging facet of dispositional mindfulness mediates the association between personality and subjective well-being
(Generós Ortet, Diane Walker, Laura Mezquita, Manuel Ignacio Ibáñez)
Abstract:
Introduction: Mindful individuals are able to resist mind wandering and live in the present moment, in a non-judgmental way. Previous studies found that both mind wandering and mindfulness were associated with psychological well-being. However, the main predictor of happiness is personality, more specifically, happier people are emotionally stable and
The aim of the present study was to explore the mediational role of the five facets of mindfulness on the relationship between personality and subjective well-being.

Method: The sample consisted of 130 university students with a mean age of 21.35 years (age range 19-37 years). We assessed the Five-Factor Model of personality using the NEO-Five Factor Inventory; dispositional mindfulness was measured with the Five Facet Mindfulness Questionnaire; and happiness was assessed using the Subjective Happiness Scale.

Results: The results of the path analysis showed that low Neuroticism and Extraversion predicted higher subjective well-being. Low Neuroticism was also associated with four of the mindfulness facets: Describing, Acting with Awareness, Non-Judging, and Non-reactivity. Openness was related to Observing and Describing. Conscientiousness was associated with Acting with Awareness. Agreeableness was not associated with mindfulness or happiness. Finally, we found that the Non-judging facet of mindfulness mediated on the relationship between low Neuroticism and subjective well-being.

Discussion: Low Neuroticism, Conscientiousness and Openness predicted dispositional mindfulness, as expected from previous studies. Moreover, we found that more stable participants tended to be non-judgmental, which favoured higher subjective well-being. No other facets of dispositional mindfulness were associated with happiness when personality was taken into account.

19 Satish Jaiswal: Modulation of motor inhibitory control by brief mindfulness training
(Satish Jaiswal, Chi-Hung Juan, Neil G.Muggleton)
Abstract:
Mindfulness is suggested to be an innate characteristic of human beings and is thought to be comprised of both state and trait dimensions. The modulatory effects of mindfulness have been well explored for different subdomains of executive control and it has also been frequently linked with improvements in cognitive inhibitory performance, primarily evaluated using the conflict monitoring task. Cognitive inhibition is distinct from motor inhibition, which critically governs our bodily impulses. The current research is the first study exploring the impact of brief mindfulness training on motor inhibition, measured using a stop signal task in healthy young adults without any previous meditation experience and blind to this condition. Twelve participants (6 females, overall mean age= 22.17±2.17) were recruited from in National Central University, Taiwan, and their mean dispositional mindfulness score (MAAS) was 44.5± 6.22. We compared their inhibitory control performance in the mindfulness condition with a well-controlled resting state and a partially active control condition, in which the participants listened to their favorite music. There were no significant effects on stop-signal reaction time (SSRT) but mean Go-RT showed a significant improvement in post-test sessions. This may have been mainly driven by an effect for the mindfulness intervention, which approached significance (p = 0.061), but this requires further investigation. No effects on accuracy were seen. It may be that brief mindfulness training may not alter inhibitory control, but it might improve the speed of responding to an imperative signal. Extension of the current study is necessary to further evaluate this.

20 Tammy D. Allen: Going the Extra Mile: Mindfulness and Organizational Citizenship Behavior
(Tammy D. Allen, Seulke (Rachel) Jang, Kaitlin Kiburz)
Abstract:
The study of mindfulness is beginning to emerge as a topic of interest within organizational psychology (e.g., Glomb et al., 2011). In the current study we draw on self-regulation theory to investigate the relationship between trait mindfulness and organizational citizenship
behavior (OCB) within a moderated mediation framework. OCB represents employee behavior that "goes the extra mile" within organizations (Organ et al., 2006). We not only introduce trait mindfulness as a theoretical predictor of OCB, but also examine empathy and perceived stress to help explain when and why mindfulness relates to OCB. We include OCB directed toward individuals (OCB-I) and OCB directed toward the organization (OCB-O) (Williams & Anderson, 1991). Figure 1 depicts hypothesized relationships. Participants were 271 alumni of a U.S. university who worked 20 or more hours a week. A total of 176 were female. Mean age was 43.34 (SD=8.22). Trait mindfulness was measured with the 15-item Mindfulness Attention Awareness Scale (Brown & Ryan, 2003) (alpha = .89). Empathy was measured with three adjectives similar to previous studies to assess empathy (see Batson et al., 1987) (alpha = .79). Perceived stress was measured with the 4-item scale developed by Cohen et al. et al. (1983). OCB-I and OCB-O were measured with the two 7-item scales developed by Williams and Anderson (1991) (OCBI alpha = .85; OCBO alpha = .66). Mixed support was found for the proposed relationships. Mindfulness was associated with OCB-O (r = .34, p < .001) and with OCB-I (r = .14, p = .02). Regression results (F = 13.93, p < .001, R2 total = .17) indicated the relationship between mindfulness and OCB-O was not mediated by empathy. However, the relationship between empathy and OCB-O was moderated by perceived stress such that when stress was lower, there was no relationship between empathy and OCB-O. When stress was higher, the relationship between empathy and OCB-O was positive. Results differed for OCB-I (F = 10.10, p < .001, R2 total = .13). The relationship between OCB-I and mindfulness was fully mediated by empathy; however this relationship was not moderated by perceived stress. Results provide initial evidence linking mindfulness with helping others at work.

21 Emanuela Poggioli: Acceptance and Commitment Therapy (ACT) e Simultaneous Palliative Care: clinical case
(Emanuela Poggioli, Nitamo Federico Montecucco)
Abstract:
The "Gaia Project" is a global mindfulness and psychophysical health education developed by the Villaggio Globale di Bagni di Lucca association, favored by UNESCO, supported and funded by the Ministry of Labor and Social Policy. The beneficiaries are children with special attention to destitute and at-risk youth. 104 children from 3 to 6 years old have participated at 12 weekly meetings of 20-30 minutes each, characterized by soft energetic exercises yin and yang, body scan, moments of sharing their experiences and drawing. At the end of the experience the teachers report that they observed some positive effects on children such as a major capacity of body and emotional perception, major attention span on the assignments and major capacity of group cohesion. The most encountered difficulties were observed in staying still and keeping the eyes shut. The substantial appreciation of the initiative and the observed positive effects shows the positive potential within the schooling path, since the preschool. It's hypothesized that by extending the educational path the results will improve and stabilize. This could be the object of investigation and in-depth analyses for future studies.

Posters – Saturday May 14

1 Shashi Agarwal: Mindfulness in clinical practice: PTSD
(Shashi K. Agarwal, New Brunswick)
Abstract:
Introduction: Post traumatic stress disorder (PTSD) is a common psychiatric disorder, occurring as a consequence of a major traumatic event. It is estimated that nearly 61% of men and 51% of women in the U.S. have experienced at least one traumatic event during their lives. The lifetime occurrence of PTSD ranges between 6% and 9%. Combat soldiers experience PTSD at much higher rates – 30% in Vietnam veterans. Substance abuse is high in this population. This poster looks at evidence based data supporting the adjunctive role of mindfulness in the management of PTSD.

Methods: A comprehensive search of health databases was done. A query of PubMed revealed: ‘mindfulness’: 2975 entries dating back to 1980; ‘mindfulness meditation’: 1074 entries dating back to 1982; ‘mindfulness PTSD’: 92 entries dating back to 2001. Relevant grey material was also consulted.

Results: Mindfulness-based cognitive therapy has shown to be effective in reducing avoidance symptom cluster and PTSD cognitors in patients with combat PTSD. Post-traumatic stress symptoms, depression, and shame-based trauma appraisals are reduced. Mood and quality of life is improved in these patients. Mindful meditation may act by improving overall prefrontal cortex functionality in patients with PTSD. Normalization of stress hormone levels, including cortisol levels, have also been reported.

Conclusion: Mindfulness has generally been defined as: ‘the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to things as they are’. Mindfulness techniques have shown evidence based efficacy and safety in the treatment of PTSD.

2 Shashi Agarwal: Mindfulness in clinical practice: Anxiety and depression

Abstract:
Introduction: Anxiety and depression are common mental illnesses. In the US, anxiety disorders affect 40 million adults age 18 and older, or 18% of the population. Depression affects more than 1 out of 20 Americans, 12 years or more of age. Complementary treatments are often used by these patients and mindfulness meditation is increasing in popularity. This poster looks at evidence based data supporting its adjunctive role in the management of anxiety and depression.

Methods: A comprehensive search of health databases was done. A query of PubMed revealed: ‘mindfulness’: 2975 entries dating back to 1980; ‘mindfulness meditation’: 1074 entries dating back to 1982; and ‘mindfulness anxiety and depression’ 440 entries dating back to 1985. Relevant grey material was also consulted.

Results: The role of mindfulness in reducing anxiety and depression has been well recognized. Evidence supports that mindfulness based stress reduction improves mental health and mindfulness based cognitive therapy prevents depressive relapse. Its beneficial role in the management of recurrent major depression was recently validated by a meta-analytic review of 23 clinical trials. Its role in reducing anxiety has also been studied with robust beneficial results recorded. The psycho-physiological mechanisms underlying these protective effects appear to lie in its ability to modulate the resting prefrontal (alpha) asymmetry.

Conclusion: Mindfulness therapy has a potential to significantly improve symptoms, function and quality of life, prevent a social decline, and reduce societal costs in patients with anxiety and depression. Mindfulness techniques are easy to learn and should be integrated into clinical medicine.

3 Christopher May: Interpersonal effects of meditation

(Christopher May, Evelien Snippe, Brian Ostafin)

Abstract:
Introduction: Contemplative research has thus far focused primarily on the effects of meditation on individuals. However, these personal effects likely have interpersonal consequences. In the present research, we examine the effects of meditation on a partner’s levels of mindfulness, positive emotion, negative emotion, and interaction behaviors.

Method: We are recruiting 40 dyads (e.g., romantic partners or roommates) to participate in an 8 week study. One member of each dyad will receive meditation instruction. They will be asked to practice their meditation according to an “ABAB” design, not meditating for two weeks (“A”), meditating for two weeks (“B”), and repeating the cycle again. During the meditation phases, participants will meditate for 15 minutes per day at least four days per week. Both members of each dyad will answer daily diary questions electronically over the course of eight weeks. Questions assess facets of mindfulness, levels of positive and negative emotion, and qualities of partner interactions that day.

Results: Our study begins in January 2016. This poster will present initial results. We expect that the non-meditating partner survey scores will reliably co-vary with meditators’ changes in mindfulness and emotion during weeks of meditation practice. Specifically, we expect the non-meditators to exhibit an attenuated and lagged, but nevertheless clear, dynamic change in measured variables relative to the meditator.

Discussion: If we observe these effects, this research would represent the first stage in a larger project examining the social diffusion of the effects of meditation.

4 Yuka Inokawa: The relationship between awareness, attention, and depression
(Yuka INOKAWA, and Shintaro YUKAWA)

Abstract:
Characteristic of mindfulness is awareness and attention. The present study examined how awareness and attention, both of which represented mindfulness, were related to depression. Five hundred and forty three undergraduate students participated in this study. Participants completed a questionnaire including the following scales: (1) The Japanese version of the Mindful Awareness Attention Scale (JMAAS), (2) The Voluntary Attention Control Scale (VACS), (3) The Japanese version of the Self-Rating Depression Scale (SDS), and (4) demographic variable. Multiple regression analysis (forced entry) showed that mindful awareness/attention measured by JMAAS (β=−.32, p<.001) as well as voluntary selective attention measured by VACS (β=−.22, p<.001) were significantly correlated negatively with depression (R2=−.22, p<.001). Therefore, it is suggested that both becoming aware and keeping attention would play an important role in severity of depression. Furthermore, characteristic of mindfulness related negatively with depression and discuss future research directions.

5 Barbara Barcaccia and 15 co-authors: Mindfulness meditation and evidence of brain changes: Implications for psychopathology
(Barbara Barcaccia, Marianna Barucca, Federica Ariano, Federica Brindisino, Rosanna Camino, Piergiorgio Carraro, Maria Dettori, Claudia Garano, Massimiliano Iacucci, Isabella Massaroni, Martina Valentini, Simona Venga, Giuseppe Vitali, Francesco Mancini, Angelo Maria Saliani, Stefania Fadda)

Abstract:
Introduction: Several empirical studies have showed the effectiveness of mindfulness-based interventions for a few mental disorders, such as anxiety, mood and eating disorders, and addictions. Thus, it would be helpful to individuate 1) brain circuitries and areas involved in mindfulness training 2) mechanisms through which mindfulness exerts its effects at a cerebral level 3) psychological functions corresponding to those cerebral areas and mechanisms 4) clinical disorders in which those structures and functions seem to be
Method: A literature search was conducted using the Scopus, PsycINFO and EBSCO electronic databases with the criteria: 1) “mindfulness” AND “neuroscience”, or “brain”, or “neuroimaging” 2) “mindfulness” AND “effectiveness” limited to article title, abstract, and keywords in with the dates from 1990 to 2015. Studies were required to be either in English, French, Spanish or Italian.

Results: Four main psychological functions have been identified, corresponding to different brain circuitries and areas, different observable modifications (Hölzel et al., 2011), and different psychopathologies:

1. Attention regulation (Anterior cingulate cortex): ADHD (Attention-deficit/Hyperactivity disorder), Bipolar disorder.
3. Emotion regulation (Prefrontal cortex, Ventro-medial PFC, hippocampus, amygdala): Anxiety Disorders, Major Depression.
4. Change in perspective on the self (Medial PFC, posterior cingulate cortex, insula, temporo-parietal junction): mental disorders in which self-criticism is implied, such as Obsessive-Compulsive Disorder.

Discussion: In the present study we illustrated the cerebral areas involved in mindfulness practice, the corresponding implied functions and the mental disorders for which mindfulness training can be particularly relevant.

6 Ven. Biplob Sraman: A Buddhist approach to ecology
Abstract:
The teachings of the Buddha, although foremost focused on the struggle with the human psychological features of greed, hatred and delusion, nevertheless pay attention to the preservation of nature and the ecological system by engaging in promoting and spreading a non-violent teaching for the preservation of the ecological system - the protection of nature, the forests, wild animals, the earth etc. Indeed, in the ecological sense, there is no any other suitable place than the Earth for beings to survive, at least no other such place has been found at this moment. Humankind faces a direct threat, once the living conditions on earth are damaged.

7 Jasmin Rodriguez: Frontal systems functioning as a mediator between meditation and emotion regulation
(Tara Victor, Jasmin Rodriguez)
Abstract:
There is an increasing interest in the use of meditation within the Western world as it relates to enhancing cognitive and emotion regulatory abilities. Practitioners of meditation have been found to score higher on tests of frontal systems functioning (Zeidan, Johnson, Diamond, David, & Goolkasian, 2010) and display greater capacity for emotion regulation (Hill & Updegraff, 2011). Furthermore, there are established neural connections between cognitive and emotional functioning (Davidson, 2003). The proposed study will attempt to cross-validate these differences among meditators and non-meditators. Given that prior research has indicated that meditation, regardless of approach, has been associated with cognitive enhancement (Grant, Courtemanche, Duerden, Duncan, & Rainville, 2010) the proposed study will extend previous work by including all forms of meditation practice and will examine the effects of multiple forms of meditation on cognition and emotion regulation. It is predicted
that meditators will outperform non-meditators on neuropsychological tests of frontal function (i.e., Controlled Oral Word Association Test, Ruff 2 & 7 Selective Attention Test, Trails Making Test, and the Stroop Test) and report greater emotion regulation capacity compared to their non-meditating counterparts. Further, the performance differences on tests of frontal function are expected to mediate the relationship between group status (meditators versus non-meditators) and self-reported emotion regulatory capacity. Expected sample size is 44 participants (22 meditators and 22 non-meditators). Independent samples t-tests will be used to compare group differences on neuropsychological tests and indicators of emotion regulation. Linear regression will be used to test the mediational hypothesis.

8 Rimon Barua: Conflict resolution in South Thailand: Roles of religious leaders
Abstract:
It is the effort to understand the undividable relationship between religion and politics especially in terms of national security from Buddhist perspective. The religious misunderstandings are mentioned in order to understand one of root causes of mistrust in the communities. What are the concrete ways to use spiritual values and practices of religious especially in Buddhism to heal social suffering in Southern Thailand? The examples of "Beginning a New' to heal the previous suffering from Buddhist perspective will be introduced. Moreover, the heritages of Buddhadasa Bhikkhu, are proposed here. Furthermore, the proper attitudes based on religious belief in dealing with other traditions in a multi-ethnic and multi-religious context are clarified, including a concept of 'deep democracy' which is based on the spiritual development and peace education' is clearly discussed. Finally, the dialogue methods would be appropriately suggested briefly in the training of members of religious/spiritual communities in order to engage them in listening to any social suffering and conflict in this region.

9 Venus Wong: Mindfulness training for medical students: cultivation of personal awareness and spirituality in medical practice
(Venus P. Y. Wong, Rainbow T. H. Ho, Julie Y. Chen)
Abstract:
Introduction: In this study a mindfulness training offered for the medical students in The University of Hong Kong was reviewed. As a relatively new pedagogical element introduced through the "spirituality and healing" sector of the medical humanities curriculum under a convention medical training program, some observations and key learning points with the program design were identified through the individual interviews with the students.
Methods: Eight MBBS 2 students were invited for the individual interview. Qualitative data were collected to identify their experiences in the program, the major obstacles to practice, the perceived benefits and their perception towards the relationship between mindfulness practice and medical training.
Results: Students, in general, find the program helpful in supporting their wellbeing. Self-compassion and compassion in medical practice were both identified as important and yet the perceived relationship between them was not clear to the students. The conceptual framework of how personal awareness serves as the mediator in relating mindfulness practice and compassion for self and others in the medical practice context is established.
Discussion: The findings from this study serve as the references for the development of mindfulness in medical training, especially for programs offered within the formal medical training curriculum.

10 Steve Pratscher: Mindfulness in interpersonal relationships predicts friendship
quality
(Steve Pratscher, Louie Markovitz, Ann Bettencourt)

Abstract:
Introduction: Research reveals that trait mindfulness and mindfulness practices positively affect satisfaction with romantic relationships (e.g., Kozlowski, 2013). To our knowledge, however, no study has examined the influence of mindfulness on the quality of friendships. This two-study package sought to understand the ways in which mindfulness affects friendship quality and explored which factors explain the association between mindfulness and friendship quality.

Methods: Studies 1 and 2 included 307 and 400 participants, respectively. In both studies, our primary predictor was a scale developed to specifically assess mindfulness in interpersonal relationships, which was adapted from other known mindfulness measures.

Results: In Study 1, interpersonal mindfulness positively predicted friendship quality, even while controlling for trait mindfulness, as measured by the Five Facet Mindfulness Questionnaire. Study 2 replicated and extended these findings. It showed that perspective-taking, empathy, and need satisfaction fully mediated the relationship between interpersonal mindfulness and friendship quality.

Discussion: These studies provide compelling evidence that people's capacity for mindfulness in interpersonal interactions enhances the quality of their friendships and suggest which processes explain this relationship. Implications of this novel finding will be discussed.

11 Damien Corubolo: Mindfulness, emotion regulation and health behaviors
(Damien Corubolo, Rebecca Shankland, Pauline Favre, Damien Tessier, Brice Beffara, Martial Mermillod)

Abstract:
Introduction: Although several studies have shown mindfulness-based interventions have positive effects on emotion regulation, little is known about these effects on health behaviors (physical activity and eating habits) and the mediating role of emotion regulation on these behaviors.

The aim of this randomized controlled study is to explore the effects of a mindfulness-based intervention (MBSR, MBCT) on health behaviors and the mediating role of emotion regulation, compared to a control group.

Methods: Sixty participants were included in intervention or control groups and performed different tasks at 3 time-points (T1: just before starting program; T2: 8 weeks later end of program; T3: 1 month after end of program). Stop signal was used to measure impulsiveness and pre-frontal control. They also completed questionnaires assessing emotional eating, body awareness, mindfulness, impulsiveness, physical activity.

Results: Outcomes will be known at end of April, 2016. Based on Anova analysis, we expect that mindfulness participants, in T2, will be significantly less impulsive and eat less in emotional way, they will be significantly more attentive, mindful, also about their body, and practice more physical activity, compared to the control group. We expect these results will be sustained in T3.

12 Kosule Yabase: Mothers’ parenting attitudes and mindfulness relate social skills and problem behaviors of young children
(Kosuke Yabase, Miyuki Takase, Toshio Kobayashi)

Abstract:
This study aims to examine the relationships between mothers’ parenting attitudes and mindfulness and infants’ social skills and problem behaviors. The research subjects were 125
mothers with infants aged three to six. The mothers’ parenting attitudes (responsiveness and demandingness) and mindfulness were analyzed in relation to infants’ social skills and problem behaviors with a simple correlation analysis, which showed a significant correlation except for the mothers’ demandingness. Using multiple regression analysis, mothers’ mindfulness and responsiveness were related to the infants’ social skills and problem behaviors. In conclusion, it was suggested that mothers’ higher mindfulness and parenting attitudes with responsiveness would promote infants’ social skills and reduce their problem behaviors.

13 Rebecca Shankland: Mindfulness Based Music Training for stress management and musical performance

14 Concetta Gardi: Impact of Mindfulness-Based Stress Reduction training on putamen and cerebellum connectivity
(Gardi C., D’Arista S.F., Egiziano E., Rossi S., Reda M., Rossi A., Santarnecchi E.)
Abstract:
A large body of literature showed the effects of mindfulness practice on brain activity and morphometry. A major component of mindfulness training is focusing and refocusing awareness on present moment internal and external experience as opposed to mind wandering or active problem solving. In this study, we acquired resting-state fMRI data from two groups of healthy subjects who participated into an 8-weeks mindfulness training or a waiting list program. Data from both a free wandering and a mindfulness-like state have been acquired before and after the MBSR course. Although the comparison between pre-post scans during mindfulness-like state did not show significant results, free wandering scans comparison highlighted a decrease of right putamen local connectivity, suggesting a diminishing of intra-regional spontaneous activity. Moreover, a whole brain granger causality analysis shows an increase of inhibitory effective connectivity played by bilateral anterior cingulate cortex over the putamen cluster significantly altered after the training. Our results are the first causal evidence of a modulation of the interaction between prefrontal cortex and ventral striatum in response to mindfulness training, suggesting a first step into the understanding of the directionality of changes reported in the literature so far, especially for those related to pain and attention modulation.

15 Maria Grazia Strepparava: Mindfulness and empathy in medical doctor students: an Italian study
(S. Ardenghi, M. G. Strepparava)
Abstract:
Introduction: Mindfulness practice has shown benefits for reducing stress in health professionals; few is known about the basic profile of mindfulness attitude in medical doctor students. In the medical training students are supposed to attend the medical ward form the third year on, and several studies enhance a dramatic decrease in empathy level due to the effect of the “hidden curriculum” (the modelling effect of hospital medical tutors). Our study explores the baseline relation between mindfulness and empathic responding at the beginning and at the end of the medical training.
Method: A sample of 544 first year medical students and 194 fifth year medical students of the Milano-Bicocca School of Medicine completed the Five Facet Mindfulness Questionnaire (FFMQ) and the Interpersonal Reactivity Index (IRI), that assess three empathy dimensions. We a) compared our students FFMQ profile with the normative Italian sample; b) 1st year medicine students and 5th year students (after two years and a half of ward experience)
profile c) the relationship between the FFMQ and the empathy profile of IRI

Results: Medical students showed higher “Acting with Awareness” level than the normative student sample; mindfulness facets are significantly associated with empathy, predicting about 15 percent of the variance in empathy variables; no significant differences in mindfulness facets between freshmen and senior medical students were found.

Discussion: Medical doctor students have a different mindfulness profile from other university students; the relation between mindfulness and empathy is confirmed; the hospital internship seems to have no impact on empathy and mindfulness level, partially because the training has a great focus on communication and human relationship.

16 Mara Mettola: Mindfulness and awareness in movement. Application of Mindfulness in fitness
(Mara Mettola, Daniele Rinero, Davide Mate)
Abstract:
Mindfulness is defined as ‘an open-hearted, moment-to-moment, non judgmental awareness of one’s own self and of the world’ (Kabat-Zinn, J., 2005).
Nowadays mindfulness techniques are becoming more and more appreciated in the sport psychology field as a tool for athletes to reach better awareness of one’s internal states, the ability to describe them, to improve the ability of staying focused and of directing one’s attention towards task-relevant stimuli, and overall to improve athletes’ performance (Gardner, F. L., & Moore, Z. E., 2004).
The aim of the present study is to propose a model that argues for the role of mindfulness in positive reappraisal coping in the sport context. Positive reappraisal is a critical component of meaning-based coping that enables individuals to adapt successfully to stressful life events. Mindfulness, as a metacognitive form of awareness, involves the process of decentering (i.e., a shifting of cognitive sets that enables alternate appraisals of life events, such as sport competition). Metacognition (Semerari, A. et al., 2003) refers to a broad set of cognitive and affective skills, which allow people to identify mental states, reason about them, and ascribe them to themselves or others. The paper reports results from a study with 8 athletes, who followed a 3-month-weekly mindfulness training and whose metacognitive skills were tested pre- and post-training. Results show significant improvements in athletes’ metacognition and support the initial idea that mindfulness training can have a positive influence in metacognitive skills involved in sport reappraisal and coping strategy.

17 Barbara Barcaccia: Mindful disposition, worry and rumination: The role of “judgment” and the role of “observation” in psychological wellbeing
(Barbara Barcaccia, Roberto Baiocco, Susanna Pallini, Florenzo Laghi, Nicola Petrocchi)
Abstract:
Introduction: Mindful disposition may be present in individuals to greater or lesser extent regardless of formal meditation practice, and it may have significant correlations with wellbeing variables. In the present study, we investigated the relations among mindful disposition, depression, rumination, and positive/negative emotions.
Method: 283 participants filled out the following questionnaires:
FFMQ Five Facet Mindfulness Questionnaire (Baer et al., 2006).
BDI Beck Depression Inventory (Beck, 1967).
PANAS Positive Affect and Negative Affect Scales (Watson & Clark, 1988).
Results: Data analyses show that mindful disposition is positively correlated to positive emotions. The Observe subscale of the FFMQ is positively correlated to rumination (RRS),
suggesting that the mere capacity of observing a phenomenon (be it emotion, thought, sensation, etc.) is not sufficient in order to better cope with it. Mindful disposition is also negatively correlated with negative emotions, except for the subscale Observe, showing once again that the sole act of observing does not correspond to distancing, on the contrary, the mere process of observation is correlated to an increase of negative emotions. Interestingly, Non-judge is the mindful facet more negatively correlated to depression. 

Discussion: Research results confirm literature data on the correlation between mindful disposition and some variables of psychological wellbeing. Particularly evident is the relationship between depression and judgment. This relation might have interesting clinical implications, suggesting that, in order to intervene on depressed mood and depressive cognitions in psychotherapy, the variable “judgment” could be particularly relevant.

18 Chris Noone: A randomised active-controlled trial to evaluate the effects of an online mindfulness intervention on executive control, critical thinking and key thinking dispositions in a university student sample

(Chris Noone, Michael J. Hogan)

Abstract:
Introduction: Mindfulness originated in the Buddhist tradition as a way of cultivating clarity of thought. While most modern research focuses on the clinical benefits of mindfulness, an emerging body of work suggests that mindfulness can facilitate self-regulation of everyday thinking in typically developing individuals. This behaviour is best captured using critical thinking assessments. The aim of this study is to investigate the effect of an online mindfulness intervention on critical thinking and related skills.

Method: This study has an RCT design with two arms. 62 participants were randomly assigned following screening to either the mindfulness meditation group or a sham meditation group. Participants were given access to an app which provides guided meditations to users. They received unique codes granting access to either the experimental or active-control intervention materials. The primary outcome measures assessed dispositional mindfulness, cognitive control, critical thinking, actively open-minded thinking and need for cognition. Secondary outcome measures assessed eudaimonic and hedonic wellbeing, positive and negative affect, and real-world outcomes. These were measured at baseline and at the end of the intervention. Manipulation checks included adherence to the intervention, meditation quality and task difficulty and enjoyment.

Results: Results are forthcoming. Planned analyses include a series of two-way mixed ANOVAS to assess the influence of group assignment and time on outcomes. Mediation and moderation analysis will be conducted using the PROCESS macro.

Discussion: The feasibility and practical strengths and limitations of using apps to deliver mindfulness interventions will be discussed along with the implications of the statistical analyses.

19 Gauchet Aurélie: A control study of a group Mindfulness Intervention for Patients with chronic disease

(Gauchet, A., Shankland, R., Da Silva, C., Hannart, N., Pellissier, S.)

Abstract:
Introduction: Patients with chronic disease could have lot of stress, rumination, and reduced quality of life. Many studies showed the efficacy of Mindfulness-based Intervention (MI) for different patients. This study aimed to evaluate the feasibility, acceptability, and effectiveness of a mindfulness-based intervention for patients with chronic disease.

Methods:
Design: Treatment-as-usual control versus mindfulness-based stress reduction intervention. Fifteen patients participated in either the MI (n = 11) or treatment-as-usual group (n = 4) conditions. The MI consisted of an 8-week mindfulness-based stress reduction training group. Outcome measures were administered at baseline (before intervention), immediately after intervention, and 2 months after intervention. Primary outcomes included measures of quality of life, psychological distress (depression and anxiety), stress (with a questionnaire and also with objective measure with tonus vagal), ruminations and mindfulness. Data for MI group participants also included weekly attendance, daily minutes meditated, and satisfaction with the program.

Results: Compared with the control group, the MI group reported greater improvements in stress, quality of life, and mindfulness at after intervention, with reduction in ruminations and improvements in quality of life and mindfulness maintained at 2 months after intervention for several patients.

20 Shu-Yu Kuo: Mindfulness and depressive symptoms in pregnant women
(Shu-Yu Kuo, RN, Heng-Kien Au, Huei-Rong Tu, Hsin-Ying Huang)

Abstract:
Depression is common among pregnant women, and mindfulness training has been recommended to alleviate depressive symptoms. The aim of this study was to examine the association between of mindfulness and depression in low-risk pregnant women.
A consecutive sample of 101 low-risk pregnant women received prenatal care in the clinic of a university hospital in Northern Taiwan was recruited. Mindfulness awareness was measured using the Mindful Attention Awareness Scale with a 6-point scale, ranging from 1 (almost always) to 6 (almost never). Depressive symptoms were assessed using the Edinburgh Postnatal Depression Scale (EPDS) with a 4-point scale, ranging from 0 (‘no’) to 3 (‘most of the time’). The mean age of participants was 33.3 years (Standard Deviation, SD=4.6). The mean scores of depressive symptoms and mindfulness were 8.3 (SD=4.9) and 68.8 (SD=10.2), respectively. The prevalence rate of depression (EPDS > 12) was 29.7 %. The participants with higher depressive symptoms reported lower mindfulness score (mean=62.2, SD=11.3) compared to the ones with lower depression symptoms (mean=71.6, SD=8.3) (p<0.001). The correlation between mindfulness and depression was -0.51 (p<0.0001). These findings suggest that mindfulness awareness is significantly associated with depressive symptoms in pregnant women that may be an important factor to promote perinatal mental health.