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Mindfulness and the contemplative life: pathways to connection, insight, and purpose

Cortland J Dahl¹ and Richard J Davidson^{1,2,3,4}

Despite the growing popular and scientific interest in mindfulness and other forms of meditation, there are important gaps in our understanding of the full range of contemplative practices and the manner in which specific forms of meditation may contribute to well-being. In this article, we discuss the relationship between mindfulness and other forms of meditation, such as those related to prosocial qualities, cognitive insight, and meaning and purpose. We propose that mindfulness plays an important role as a foundation for other contemplative practices. We also discuss the importance of worldview as a variable in mindfulness practice and raise questions that may guide future research in this area.

Addresses

- ¹ Center for Healthy Minds, University of Wisconsin, 625 W Washington Ave, Madison, WI 53703, USA
- ² Department of Psychology, University of Wisconsin, 1202 W Johnson St, Madison, WI 53706, USA
- ³ Waisman Laboratory for Brain Imaging and Behavior, University of Wisconsin, 1500 Highland Ave, Madison, WI 53705, USA
- ⁴ Department of Psychiatry, University of Wisconsin, 6001 Research Park Blvd, Madison, WI 53719, USA

Corresponding author: Dahl, Cortland J (cortland.dahl@wisc.edu)

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Mindfulness meditation and other forms of contemplative practice have played an important role in the world's religious, philosophical, and humanistic traditions since antiquity [1–4], and are increasingly being incorporated into contemporary medical and psychotherapeutic contexts [5–8]. Although the philosophical views and practical concerns of these traditions vary widely, they share the perspective that the mind can be trained through contemplative practice, and that doing so can help bring about a state of optimal well-being.

Contemplative practices may thus be defined as efforts that promote human flourishing by training the mind. Contemplative methodologies are thus concerned with more than treating psychopathology and alleviating suffering, and although they may incorporate physical movement and social interactions, they emphasize mental training and psychological transformation as their primary means and objective.

Research over the last few decades has focused on a relatively narrow band of contemplative practices, and in particular on the topic of mindfulness [9–14]. Although recent research has extended the field in new directions by studying compassion-based meditation [15–20], we have yet to investigate the full range of contemplative practices and the manner in which they may bolster well-being.

A fertile area of future scientific study of mindfulness is thus the relationship between mindfulness and other forms of contemplative practice. In a prior work, we outlined three families of meditation practice — the attentional, constructive, and deconstructive families based on their cognitive mechanisms and concomitant psychological outcomes [21]. The attentional family is primarily concerned with regulating the scope and stability of attention while strengthening a heightened awareness of present-moment experience. Practices in the constructive family aim to strengthen healthy, or virtuous psychological qualities. The deconstructive family elicits self-knowledge and insight through reflection and selfinquiry. To date, few scientific studies have investigated mindfulness meditation in relation to other forms of contemplative practice. In this short article, we outline preliminary suggestions and important questions to spur interest in this area.

Mindfulness as the foundation of contemplative life

Mindfulness practices, according to the three-family taxonomy mentioned above, fall most clearly into the attentional family, insofar as they are typically described in relation to attention-related psychological processes and present-moment awareness [5,8,22]. In contemporary settings, mindfulness is typically taught as a series of standalone exercises, yet in traditional contexts these practices were embedded within a complex constellation of world views, social relationships, ethical frameworks, and aesthetic considerations.

In particular, mindfulness and related forms of meditation were viewed as foundational practices of the

contemplative life, and were employed as precursors to other styles of contemplative practice, such as those that fall into the constructive and deconstructive families mentioned above. In Buddhism, for instance, meditations that aim to stabilize present-centered awareness are typically practiced in preparation for analytical meditations that generate insight into the nature of the self (see below) or alongside practices that strengthen virtuous qualities, such as kindness and compassion [23–25]. Similarly, as noted by Pierre Hadot in his landmark work on Greco-Roman philosophical schools, attention-related practices were similarly used by the Stoics and Epicureans to cultivate a heightened awareness of the present, and were practiced alongside philosophical inquiry and reflections on important virtues [4].

These historical considerations suggest that mindfulness practice may best be thought of as a foundational practice for the contemplative life, and that the psychological processes it strengthens may be integral for other forms of meditation, as well as for the cultivation of virtue and for self-inquiry and other forms of contemplation. It may also be that mindfulness helps to consolidate the insights gleaned from other practices. Future scientific research might explore whether mindfulness practices do indeed facilitate other aspects of the contemplative life, and, if so, the precise mechanisms through which this occurs.

Pioneering initiatives like the ReSource project (Singer and Engert, this issue) and the Healthy Minds Initiative have begun to investigate these and related topics [26]. Both of these projects include a range of contemplative practices, including mindfulness meditation as well as practices related to prosocial qualities and cognitive insight. They also offer a variety of methods to practice contemplative skills. The ReSource project, for instance, features dyadic practices in which contemplative skills are honed through interpersonal relationships [27]. The Healthy Minds Initiative contains similar interpersonal exercises, as well as active practices in which contemplative skills are carried out in the context of daily life activities.

Mindfulness as a basis for prosocial practices

Three forms of contemplative practice that are also worthy of scientific interest are those related to firstly, prosocial qualities like appreciation, kindness, and compassion, secondly, self-knowledge and insight, and thirdly, purpose and meaning in life. Research suggests that all three areas are important contributors to psychological well-being [28–30], and practices that strengthen these qualities are found in a variety of spiritual and humanistic traditions [3,4,31,32]. The relationship between these qualities and mindfulness practice, however, has received little scientific attention.

Prosocial virtues are among the most widely studied phenomena related to well-being. Extensive research has shown that the quality of interpersonal relationships is a major determinant of psychological wellbeing [29,33] and that qualities like compassion and gratitude are associated with more caring relationships [34]. Recent research is also beginning to demonstrate that such qualities can be strengthened through contemplative practices like meditation [15,35–38].

An important area of future research is the relationship between this style of practice and mindfulness meditation. On this topic, one recent study showed that selfreported present-centered awareness was increased by both mindfulness and prosocial contemplative practices, indicating that some of the effects of mindfulness practice may be shared by other forms of meditation [39]. This same study showed that both mindfulness and prosocial practices decreased perceived stress during the Trier Social Stress Test, but that only the prosocial practices decreased the physiological stress response.

These preliminary findings raise important questions. For instance, are prosocial qualities strengthened more effectively when preceded by, or paired with, mindfulness practices? Similarly, are mindfulness-related skills like meta-awareness and the regulation of attention strengthened by other forms of contemplative practice, and to what degree? At present, we do not yet understand the differential and synergistic impact that these two styles of contemplative practice have within and across individuals.

Mindfulness and insight

Another important family of contemplative practice concerns the cultivation of self-knowledge, insight, and wisdom, which we have referred to elsewhere as the 'deconstructive' family of meditation [21]. This style of practice combines the attentional capacities of mindfulness practice with self-inquiry and contemplation. One example of a deconstructive practice is Buddhist analytical meditation, which aims to generate insight into the dynamics of cognitive and affective processes that ease suffering and enhance well-being [40]. In this style of practice, one might examine the relationship between self-concept and emotion, for instance by observing the experience of anxiety and noting how the automatic thoughts and visceral sensations associated with the emotion are constantly changing, and not intrinsically tied to the self.

Although a few pioneering studies have investigated deconstructive practices [41–45], systematic efforts to study this family of practice are lacking. In addition, new research on the psychological and neural dynamics of insight is also emerging [46,47], yet the forms of insight that are being studied are quite different from those gained through contemplative practice.

There are many important questions concerning this family of practice. As noted above in relation to prosocial forms of meditation, this form of practice also engages, and thus likely strengthens, the same attentional processes targeted by mindfulness meditation. However, it is not clear whether deconstructive practices can be fruitfully engaged with no prior training in mindfulness, or if mindfulness and attentional processes themselves might be more effectively strengthened by deconstructive practices. It is also unclear how deconstructive practices and the cultivation of insight bolster psychological well-being, and the mechanisms through which this takes place. Thus, given the growing scientific interest in the self and self-related processes in both clinical psychology and cognitive science [48], and also the historical importance of self-inquiry and self-knowledge across a range of contemplative traditions, the phenomenon of contemplative insight and the deconstructive practices that generate insight are both worth candidates of scientific investigation.

Mindfulness and the cultivation of purpose and meaning

A third area of practice that is worthy of scientific investigation is the role that contemplative practices play in strengthening purpose and meaning in life, and how mindfulness practices may contribute to this process. Purpose and meaning and life are one of the most robust predictors of psychological well-being [49,50]. Practices that strengthen meaning and purpose are found in many of the world's contemplative traditions. One common practice in this family is the contemplation of one's own mortality. In this practice, one may alter one's perspective by projecting oneself into the future and imagine that one was reflecting back on one's current pursuits, or rehearse one's own death to bring awareness to the fragility of life. Similarly, one may reinterpret challenges and obstacles in life as though one were living one's last day. Such practices typically function to reorient the mind toward one's most deeply held values and beliefs and are found in a range of contemplative traditions, including both Buddhism and Greco-Roman philosophy [23,51–53].

As noted above with practices that aim to strengthen prosocial qualities and those that generate insight, mindfulness practices may play an important role in the cultivation of purpose and meaning. One important question pertains to the beneficial role that mindfulness practices themselves might have on purpose and meaning, versus the effect that contemplative practices that directly target these phenomena might have. It might also be that mindfulness practices might strengthen well-being differently when paired with elements of purpose-oriented practices, or when one style of practice precedes and supports the other. Thus, given the central role that purpose and meaning play in psychological well-

being, and the growing evidence that mindfulness practices also bolster various aspects of human flourishing, research that examines the relationship between these areas may shed light on practices that strengthen these important qualities.

Reintroducing the sacred: mindfulness and spirituality

Another important area of potential scientific investigation is the role that worldview and perspective may play in moderating the effect of mindfulness and other contemplative practices. Traditional forms of mindfulness practice are typically embedded in a distinct worldview, and the practices themselves both reflect and reinforce these perspectives. Note, for instance, the following passage by the sixteenth century Catholic saint, François de Sales: "If the heart wanders or is distracted, bring it back to the point quite gently and replace it tenderly in its Master's presence. Even if you did nothing during the whole of your hour but bring your heart back and place it again in Our Lord's presence, though it went away every time you brought it back, your hour would be very well employed." (quoted in Huxley, 1947) In this short passage, we find an instruction to bring the wandering mind back to the present moment that is commonly taught in Mindfulness-Based Stress Reduction classes, and also in the writings of Buddhist meditation teachers, Stoic philosophers, and psychologists like William James.

We can also see from this passage that contemplative practices reflect distinct worldviews. For a practitioner of Mindfulness-Based Stress Reduction, the act of returning to the present moment may be understood as a pathway to healing or self-growth. For a Christian contemplative, it could be experienced as a return to the presence of God. A Buddhist meditator might experience it as an opportunity to gain insight into the transitory nature of conditioned experience, and for the Stoic, it could be a moment of self-mastery.

Mindfulness and related practices are thus linked to unique perspectives, worldviews, and contexts. These variations suggest that there is no single 'correct' or 'pure' way to practice mindfulness. They do, however, indicate that cultural, religious, and philosophical context may be important variables to consider when conducting research, since the worldview and perspective that informs these practices may play an important role in how they affect an individual.

The inclusion of a 'transcendent' or 'spiritual' perspective in mindfulness research studies — although challenging — is thus a potent area of scientific investigation. One might, for instance, investigate whether those with a Christian belief system benefit from mindfulness practices that are contextualized within a Christian worldview, versus within a secular, stress-relief paradigm.

Similarly, a study of the varying motivations that prompt people to practice mindfulness, for instance by examining the effect of practicing with a motivation of compassion for others versus a motivation for one's own healing or growth. This may shed light on the manner in which one's worldview informs motivation, and whether these motivations moderate the impact of mindfulness practice. Studies of this nature may yield important insights regarding the role that worldview and motivation play in contemplative practice. Indeed, adopting a worldview that serves as a regular reminder of one's spiritual purpose may itself have important behavioral and biological consequences independent of any specific mindfulness practice. Building on theoretical discussions and novel models that incorporate transcendent dimensions of mindfulness [14,54,55] by investigating this sort of claim is both tractable and, we believe, important.

Conclusion

Mindfulness and the training of attention support a broad range of contemplative practices. In the same way that mindfulness research has vielded valuable knowledge regarding the benefits of training the mind, expanding the scope of scientific investigation to include other forms of meditation, and the relationship between different forms of practice, may also advance our understanding of psychological well-being, and how it can be cultivated. In this article, we have offered a few preliminary suggestions to guide future research and to spur the development of new contemplative interventions. Expanding the scope of research in new directions holds great potential for the further development of contemplative science.

Conflict of interest statement

Dr Davidson is the founder, president, and serves on the board of directors for the nonprofit organization Healthy Minds Innovations, Inc. Dr Dahl serves as chief contemplative officer for Healthy Minds Innovations, Inc.

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References

- Eifring H (Ed): Meditation in Judaism, Christianity and Islam. Bloomsbury Academic; 2015.
- Burckhardt T, Chittick WC: Introduction to Sufi Doctrine. World
- Gethin R: The Foundations of Buddhism. Oxford University Press;
- Hadot P: Philosophy as a Way of Life: Spiritual Exercises from Socrates to Foucault. Oxford: Blackwell; 1995
- Linehan MMM, Schmidt H, Dimeff LLA, Craft JCJC, Kanter J, Comtois KA: Dialectical behavior therapy for patients with borderline personality disorder and drug-dependence. Am J Addict 1999, 8:279-292 http://dx.doi.org/10.1080/ 105504999305686.

- Hayes SC, Luoma JB, Bond FW, Masuda A, Lillis J: Acceptance and commitment therapy: model, processes and outcomes. Behav Res Ther 2006, 44:1-25 http://dx.doi.org/10.1016/j. brat 2005 06 006
- Segal ZV, Williams JMG, Teasdale JD: Mindfulness-Based Cognitive Therapy for Depression. Guilford Press; 2012.
- Kabat-Zinn J. Lipworth L. Burnev R: The clinical use of mindfulness meditation for the self-regulation of chronic pain. J Behav Med 1985, 8:163-190 http://dx.doi.org/10.1007/ BF00845519.
- Tang Y-Y, Holzel BK, Posner MI: The neuroscience of mindfulness meditation. Nat Rev Neurosci 2015, 16:213-225 http://dx.doi.org/10.1038/nrn3916.
- Goyal M, Singh S, Sibinga EMS, Gould NF, Rowland-Seymour A, Sharma R, Berger Z, Sleicher D, Maron DD, Shihab HM et al.: Meditation programs for psychological stress and well-being: a systematic review and meta-analysis. JAMA Intern Med 2014, 174:357-368 http://dx.doi.org/10.1001/ iamainternmed 2013 13018
- 11. Davidson RJ, Kabat-Zinn J, Schumacher J, Rosenkranz M, Muller D, Santorelli SF, Urbanowski F, Harrington A, Bonus K, Sheridan JF: Alterations in brain and immune function produced by mindfulness meditation. Psychosom Med 2003, 65:564-570 http://dx.doi.org/10.1097/01. PSY.0000077505.67574.E3.
- 12. MacLean Ka, Ferrer E, Aichele SR, Bridwell Da, Zanesco AP, Jacobs TL, King BG, Rosenberg EL, Sahdra BK, Shaver PR et al.: Intensive meditation training improves perceptual discrimination and sustained attention. Psychol Sci 2010, 21:829-839 http://dx.doi.org/10.1177/0956797610371339.
- 13. Fox KCRR, Nijeboer S, Dixon ML, Floman JL, Ellamil M, Rumak SP, Sedlmeier P, Christoff K: Is meditation associated with altered brain structure? A systematic review and meta-analysis of morphometric neuroimaging in meditation practitioners Neurosci Biobehav Rev 2014, 43:48-73 http://dx.doi.org/10.1016/ i.neubiorev.2014.03.016.
- 14. Vago DR, Silbersweig DA: Self-awareness, self-regulation, and self-transcendence (S-ART): a framework for understanding the neurobiological mechanisms of mindfulness. Front Hum Neurosci 2012, 6:1-30 http://dx.doi.org/10.3389/ fnhum.2012.00296.
- 15. Leiberg S, Klimecki O, Singer T: Short-term compassion training increases prosocial behavior in a newly developed prosocial game. PLoS One 2011, 6:e17798 http://dx.doi.org/10.1371/ iournal.pone.0017798.
- 16. Lutz A, Brefczynski-Lewis J, Johnstone T, Davidson RJ: Regulation of the neural circuitry of emotion by compassion meditation: effects of meditative expertise. PLoS One 2008, 3: e1897 http://dx.doi.org/10.1371/journal.pone.0001897.
- 17. Desbordes G, Negi LT, Pace TWW, Wallace BA, Raison CL. Schwartz EL: Effects of mindful-attention and compassion meditation training on amygdala response to emotional stimuli in an ordinary, non-meditative state. Front Hum Neurosci 2012, 6:292 http://dx.doi.org/10.3389/ fnhum.2012.00292.
- 18. Hutcherson CA, Seppala EM, Gross JJ: Loving-kindness meditation increases social connectedness. Emotion 2008, 8:720-724 http://dx.doi.org/10.1037/a0013237.
- Condon P, Desbordes G, Miller WB, DeSteno D: Meditation increases compassionate responses to suffering. Psychol Sci 2013, 24:2125-2127 http://dx.doi.org/10.1177/ 0956797613485603.
- 20. Loggia ML, Mogil JS, Bushnell MC: Empathy hurts: compassion for another increases both sensory and affective components of pain perception. Pain 2008, 136:168-176 http://dx.doi.org/ 10.1016/j.pain.2007.07.017
- 21. Dahl CJ, Lutz A, Davidson RJ: Reconstructing and deconstructing the self: cognitive mechanisms in meditation practice. Trends Cogn Sci 2015, 19:515-523 http://dx.doi.org/ 10.1016/j.tics.2015.07.001.

- 22. Bishop SR: Mindfulness: a proposed operational definition. Clin Psychol Sci Pract 2004, 11:230-241 http://dx.doi.org/ 10.1093/clipsy/bph077.
- 23. Buddhaghosa: The Path of Purification. Buddhist Publication Society: 2011.
- 24. Namgyal DT: Clarifying the Natural State: A Principal Guidance Manual for Mahamudra. Kathmandu: Rangjung Yeshe Publications; 2004.
- 25. Kapleau RP: The Three Pillars of Zen. Anchor; 2013.
- 26. Healthy Minds Initiative. 2018 https://hminnovations.org/hmi/ products/healthy-minds-at-work
- 27. Kok BE, Singer T: Effects of contemplative dyads on engagement and perceived social connectedness over 9 months of mental training. JAMA Psychiatry 2017, 74:126 http://dx.doi.org/10.1001/jamapsychiatry.2016.3360.
- 28. Reker GT, Wong PTP: Meaning and purpose in life and wellbeing: a life-span perspective. J Gerontol 1987, 42:44-49 http:// dx.doi.org/10.1093/geronj/42.1.44.
- 29. Ryff CD: Psychological well-being revisited: advances in the science and practice of eudaimonia. Psychother Psychosom 2014, 83:10-28 http://dx.doi.org/10.1159/000353263.
- 30. Ryan RM, Deci EL: Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. Am Psychol 2000, 55:68-78 http://www.ncbi.nlm.nih. gov/pubmed/11392867.
- 31. Fitzgerald PB, Oxley TJ, Laird AR, Kulkarni J, Egan GF, Daskalakis ZJ: An analysis of functional neuroimaging studies of dorsolateral prefrontal cortical activity in depression. Psychiatry Res 2006, 148:33-45 http://dx.doi.org/10.1016/j. pscychresns.2006.04.006.
- Klostermaier K: A Survey of Hinduism. State University of New York Press; 2007.
- 33. Eisenberger NI, Cole SW: Social neuroscience and health: neurophysiological mechanisms linking social ties with physical health. Nat Neurosci 2012, 15:669-674 http://dx.doi.org/ 10 1038/nn 3086
- 34. Stellar JE, Gordon AM, Piff PK, Cordaro D, Anderson CL, Bai Y, Maruskin LA, Keltner D: Self-transcendent emotions and their social functions: compassion, gratitude, and awe bind us to others through prosociality. Emot Rev 2017, 9:200-207 http:// dx.doi.org/10.1177/1754073916684557.
- 35. Zeng X, Chiu CPK, Wang R, Oei TPS, Leung FYK: The effect of loving-kindness meditation on positive emotions: a meta-analytic review. Front Psychol 2015, 6:1-14 http://dx.doi.org/ 10.3389/fpsyg.2015.01693.
- Shonin E, Van Gordon W, Compare A, Zangeneh M, Griffiths MD: Buddhist-derived loving-kindness and compassion meditation for the treatment of psychopathology: a systematic review. Mindfulness (N Y) 2015, 6:1161-1180 http:// dx.doi.org/10.1007/s12671-014-0368-1.
- 37. Galante J, Galante I, Bekkers MJ, Gallacher J: Effect of kindness-based meditation on health and well-being: a systematic review and meta-analysis. J Consult Clin Psychol 2014, 82:1101-1114 http://dx.doi.org/10.1037/a0037249.
- 38. Weng HY, Fox AS, Shackman AJ, Stodola DE, Caldwell JZKK, Olson MC, Rogers GM, Davidson RJ: **Compassion training alters** altruism and neural responses to suffering. Psychol Sci 2013, 24:1171-1180 http://dx.doi.org/10.1177/0956797612469537.

- 39. Kok BE, Singer T: Phenomenological fingerprints of four meditations: Differential state changes in affect, mindwandering, meta-cognition, and interoception before and after daily practice across 9 months of training. Mindfulness 2017, 8:218-231.
- 40. Karr A: Contemplating Reality: A Practitioner's Guide to the View in Indo-Tibetan Buddhism. Shambhala Publications; 2007.
- 41. Josipovic Z: Neural correlates of nondual awareness in meditation. Ann N Y Acad Sci 2013:1-10 http://dx.doi.org/ 10.1111/nyas.12261.
- 42. Manna A, Raffone A, Perrucci MG, Nardo D, Ferretti A, Tartaro A, Londei A, Del Gratta C, Belardinelli MO, Romani GL: Neural correlates of focused attention and cognitive monitoring in meditation. Brain Res Bull 2010, 82:46-56 http://dx.doi.org 10.1016/j.brainresbull.2010.03.001.
- 43. Cahn BR, Delorme A, Polich J: Occipital gamma activation during Vipassana meditation. Cogn Process 2010, **11**:39-56 http://dx.doi.org/10.1007/s10339-009-0352-1.
- 44. Hölzel BK, Ott U, Hempel H, Hackl A, Wolf K, Stark R, Vaitl D: Differential engagement of anterior cingulate and adjacent medial frontal cortex in adept meditators and non-meditators. Neurosci Lett 2007, 421:16-21 http://dx.doi.org/10.1016/j. neulet.2007.04.074.
- 45. Lutz A, McFarlin DR, Perlman DM, Salomons TV, Davidson RJ: Altered anterior insula activation during anticipation and experience of painful stimuli in expert meditators. Neuroimage 2013, 64:538-546 http://dx.doi.org/10.1016/j. neuroimage.2012.09.030.
- 46. Shen W, Tong Y, Li F, Yuan Y, Hommel B, Liu C, Luo J: Tracking the neurodynamics of insight: a meta-analysis of neuroimaging studies. Biol Psychol 2018 http://dx.doi.org/ 10.1016/j.biopsycho.2018.08.018.
- 47. Kounios J, Beeman M: The cognitive neuroscience of insight. Annu Rev Psychol 2014, 65:71-93 http://dx.doi.org/10.1146/ annurev-psych-010213-115154.
- 48. Leary MR, Adams CE, Tate EB: Hypo-egoic self-regulation: exercising self-control by diminishing the influence of the self. J Pers 2006, 74:1803-1831 http://dx.doi.org/10.1111/j.1467-6494.2006.00429.x.
- 49. Steger MF, Oishi S, Kashdan TB: Meaning in life across the life span: levels and correlates of meaning in life from emerging adulthood to older adulthood. J Posit Psychol 2009, 4:43-52.
- Schaefer SM, Boylan JM, Van Reekum CM, Lapate RC, Norris CJ, Ryff CD, Davidson RJ: **Purpose in life predicts better emotional recovery from negative stimuli**. *PLoS One* 2013, **8** http://dx.doi. org/10.1371/journal.pone.0080329
- 51. Rinpoche P: The Words of My Perfect Teacher: A Complete Translation of a Classic Introduction to Tibetan Buddhism. Altamira Press: 1998.
- 52. Aurelius M: Meditations. Penguin Classics; 2006.
- 53. Huxley A: The Perennial Philosophy. Chatto & Windus; 1947.
- 54. Yaden DB, Haidt J, Hood RW, Vago DR, Newberg AB: The varieties of self-transcendent experience. Rev Gen Psychol 2017, 21:1-18 http://dx.doi.org/10.1037/gpr0000102.
- 55. Garland EL, Farb NA, Goldin P, Fredrickson BL: Mindfulness broadens awareness and builds eudaimonic meaning: a process model of mindful positive emotion regulation. Psychol inq 2015, 26:293-314 http://dx.doi.org/10.1080/ 1047840X.2015.1064294.