

23 mindfulness & compassion relevant abstracts: november '18 newsletter

Antfolk, J. and A. Sjölund (2018). **"High parental investment in childhood is associated with increased mate value in adulthood."** *Personality and Individual Differences* 127: 144-150.
<http://www.sciencedirect.com/science/article/pii/S0191886918300709>

Stressors in the childhood environment, such as decreased parental investment (PI) regulate an individual's reproductive behaviors. The effect of these behaviors on fitness is partly determined by individual mate value (MV). We tested whether PI during childhood is associated to MV in adulthood. Adult men and women (N = 1244) reported received maternal and paternal investment, and also current MV. We found that high PI in childhood was associated with increased MV in adulthood. Additionally, there was a positive correlation between maternal and paternal investment and the association between paternal investment and MV was mediated through maternal investment. We conclude that PI, especially maternal investment, might influence MV in offspring.

Arriaga, X. B., M. Kumashiro, et al. (2018). **"Revising working models across time: Relationship situations that enhance attachment security."** *Pers Soc Psychol Rev* 22(1): 71-96. <https://www.ncbi.nlm.nih.gov/pubmed/28573961>

We propose the Attachment Security Enhancement Model (ASEM) to suggest how romantic relationships can promote chronic attachment security. One part of the ASEM examines partner responses that protect relationships from the erosive effects of immediate insecurity, but such responses may not necessarily address underlying insecurities in a person's mental models. Therefore, a second part of the ASEM examines relationship situations that foster more secure mental models. Both parts may work in tandem. We posit that attachment anxiety should decline most in situations that foster greater personal confidence and more secure mental models of the self. In contrast, attachment avoidance should decline most in situations that involve positive dependence and foster more secure models of close others. The ASEM integrates research and theory, suggests novel directions for future research, and has practical implications, all of which center on the idea that adult attachment orientations are an emergent property of close relationships.

Bennett-Levy, J. and A. Finlay-Jones (2018). **"The role of personal practice in therapist skill development: A model to guide therapists, educators, supervisors and researchers."** *Cognitive Behaviour Therapy* 47(3): 185-205.
<https://doi.org/10.1080/16506073.2018.1434678>

Prior to 2000, personal practice (PP) for therapists mostly meant personal therapy. Recently a new landscape of PPs has emerged, with meditation-based programs and therapy self-practice/self-reflection (SP/SR) programs playing an increasing role in training and personal/professional development. The challenge now for practitioners and researchers is to refocus on the role of PPs in training and professional development. Are PPs of value - or not? Do they have a role in therapist development? How might PPs enhance therapist skilfulness? Do different PPs act in similar or different ways? Currently, the PP literature lacks a theoretical framework to guide practitioners in their choice of PPs or researchers in their choice of research questions and measures. The purpose of this article is to provide such a framework, the Personal Practice (PP) model. The PP model proposes primary impacts of PPs in four domains: personal development/wellbeing, self-awareness, interpersonal beliefs/attitudes/skills and reflective skills. The model also suggests a secondary impact on therapists' conceptual/technical skills when therapists use reflection to consider the implications of their PP for their 'therapist self'. We offer some suggestions to enhance the quality of future research, and conclude that PPs may play an important and perhaps unique role in therapist training.

Carnelley, K. B., M.-M. Bejinaru, et al. (2018). **"Effects of repeated attachment security priming in outpatients with primary depressive disorders."** *Journal of Affective Disorders* 234: 201-206.
<http://www.sciencedirect.com/science/article/pii/S0165032717324540>

Background The aim of this study was to assess the potential effectiveness of secure attachment priming in outpatients with depressive disorders. Methods Forty-eight participants engaged in secure attachment priming or neutral priming in the laboratory (Time 1), after which they received three daily consecutive primes via text message (Times 2-4), aimed at maintaining the effects from Time 1. A follow-up one day later (Time 5) was also included. Dependent measures were assessed at Times 1, 4 and 5. Results Participants in the secure attachment priming condition experienced higher felt-security than the control group at all time-points, indicating that the felt-security benefit was maintained through repeated priming. Secure priming had a greater impact on reducing symptoms of anxiety and depression in comparison to the control prime, though the differences were only significant at Time 4. Limitations The moderate sample size limited our statistical power. Conclusions This study was the first experiment using repeated secure attachment priming within a clinical sample. Our findings have potential clinical implications; security priming could be used alongside other treatments to improve outcome. Recommendations for further research are discussed.

Chen, B.-B. (2018). **"An evolutionary life history approach to understanding greed."** *Personality and Individual Differences* 127: 74-78. <http://www.sciencedirect.com/science/article/pii/S0191886918300710>

Evolutionary life history theory offers a unifying theoretical framework, emphasizing that human behaviors have been selected because they are adaptive responses to environmental challenges. There is little extant empirical research on the evolutionary origin of greed. The purpose of this study, which was based on the evolutionary life history approach, was to examine the relationships between childhood environmental unpredictability, attachment, and greed. A sample of 364 university students completed measures of greed, attachment, and childhood environment. Structural equation modeling revealed that, as predicted, childhood environmental unpredictability was positively associated with greed. Furthermore, attachment was confirmed as a mediator of the association between childhood environmental unpredictability and greed. These results define the evolutionary origin of greed.

Curry, O. S., D. A. Mullins, et al. (2018). **"Is it good to cooperate? Testing the theory of morality-as-cooperation in 60 societies."** *Open Science Framework*. osf.io/9546r

Description: What is morality? And to what extent does it vary around the world? The theory of 'morality-as-cooperation' argues that morality consists of a collection of biological and cultural solutions to the problems of cooperation recurrent in human social life. Morality-as-cooperation draws on the theory of nonzerosum games to identify distinct problems of cooperation and their solutions, and predicts that specific forms of cooperative behaviour - including helping kin, helping your group, reciprocating, being brave, deferring to superiors, dividing disputed resources, and respecting prior possession - will be considered morally good wherever they arise, in all cultures. In order to test these predictions, we investigate the moral valence of these seven cooperative behaviours in the ethnographic records of 60 societies. We find that the moral valence of these

behaviours is uniformly positive, and the majority of these cooperative morals are observed in the majority of cultures, with equal frequency across all regions of the world. We conclude that these seven cooperative behaviours are plausible candidates for universal moral rules, and that morality-as-cooperation could provide the unified theory of morality that anthropology has hitherto lacked.

Curry, O. S., L. A. Rowland, et al. (2018). **"Happy to help? A systematic review and meta-analysis of the effects of performing acts of kindness on the well-being of the actor."** *Journal of Experimental Social Psychology* 76: 320-329. <http://www.sciencedirect.com/science/article/pii/S0022103117303451>

Do acts of kindness improve the well-being of the actor? Recent advances in the behavioural sciences have provided a number of explanations of human social, cooperative and altruistic behaviour. These theories predict that people will be 'happy to help' family, friends, community members, spouses, and even strangers under some conditions. Here we conduct a systematic review and meta-analysis of the experimental evidence that kindness interventions (for example, performing 'random acts of kindness') boost subjective well-being. Our initial search of the literature identified 489 articles; of which 24 (27 studies) met the inclusion criteria (total N = 4045). These 27 studies, some of which included multiple control conditions and dependent measures, yielded 52 effect sizes. Multi-level modeling revealed that the overall effect of kindness on the well-being of the actor is small-to-medium ($d = 0.28$). The effect was not moderated by sex, age, type of participant, intervention, control condition or outcome measure. There was no indication of publication bias. We discuss the limitations of the current literature, and recommend that future research test more specific theories of kindness: taking kindness-specific individual differences into account; distinguishing between the effects of kindness to specific categories of people; and considering a wider range of proximal and distal outcomes. Such research will advance our understanding of the causes and consequences of kindness, and help practitioners to maximise the effectiveness of kindness interventions to improve well-being.

De Leersnyder, J., P. Koval, et al. (2018). **"Emotions and concerns: Situational evidence for their systematic co-occurrence."** *Emotion* 18(4): 597-614. <http://psycnet.apa.org/record/2017-25704-001>

People experience emotions when events are relevant to their current concerns, that is, when events affect their goals, values, or motives that are pertinent at that time. In the current research, we focused on one kind of concern-values-and examined whether different types of concerns are associated with different categories of emotion. More specifically, we investigated whether, at the situation level, the relevance of different types of values is linked to the intensity of different types of emotional experience. We conducted two retrospective survey studies (Studies 1 and 2)-one of which was cross-cultural-and one experience-sampling study (Study three). Together, the three studies provide convergent evidence for associations between the situational relevance of self-focused values (e.g., ambition, success) and socially disengaging emotions (e.g., pride, anger) on the one hand, and between the relevance of other-focused values (e.g., loyalty, helping) and socially engaging emotions (e.g., closeness, shame) on the other. These findings challenge the (often implicit) assumption of emotion theories that different types of concerns are interchangeable-that is, that it does not matter for emotion which concern is relevant as long as one is. In contrast, the current research proposes that different concerns are constitutive elements of different emotional experiences and thus encourages new ways of thinking about emotions.

Eyal, T., M. Steffel, et al. (2018). **"Perspective mistaking: Accurately understanding the mind of another requires getting perspective, not taking perspective "** *Journal of Personality and Social Psychology* 114: 547-571. <http://dx.doi.org/10.1037/pspa0000115>

Taking another person's perspective is widely presumed to increase interpersonal understanding. Very few experiments, however, have actually tested whether perspective taking increases accuracy when predicting another person's thoughts, feelings, attitudes, or other mental states. Those that do yield inconsistent results, or they confound accuracy with egocentrism. Here we report 25 experiments testing whether being instructed to adopt another person's perspective increases interpersonal insight. These experiments include a wide range of accuracy tests that disentangle egocentrism and accuracy, such as predicting another person's emotions from facial expressions and body postures, predicting fake versus genuine smiles, predicting when a person is lying or telling the truth, and predicting a spouse's activity preferences and consumer attitudes. Although a large majority of pretest participants believed that perspective taking would systematically increase accuracy on these tasks, we failed to find any consistent evidence that it actually did so. If anything, perspective taking decreased accuracy overall while occasionally increasing confidence in judgment. Perspective taking reduced egocentric biases, but the information used in its place was not systematically more accurate. A final experiment confirmed that getting another person's perspective directly, through conversation, increased accuracy but that perspective taking did not. Increasing interpersonal accuracy seems to require gaining new information rather than utilizing existing knowledge about another person. Understanding the mind of another person is therefore enabled by getting perspective, not simply taking perspective.

Fraley, R. C. and G. I. Roisman (2019). **"The development of adult attachment styles: Four lessons."** *Current Opinion in Psychology* 25: 26-30. <http://www.sciencedirect.com/science/article/pii/S2352250X18300113>

(Available in free full text) Why are some adults secure or insecure in their relationships? The authors review four lessons they have learned from longitudinal research on the developmental antecedents of adult attachment styles. First, although adult attachment appears to have its origins in early caregiving experiences, those associations are weak and inconsistent across measurement domains. Second, attachment styles appear to be more malleable in childhood and adolescence than in adulthood, leading to asymmetries in socialization and selection processes. Third, early experiences do not determine adult outcomes. Fourth, there is still a lot to learn, and future research requires examining relationship-specific attachment patterns, the distinction between distal and proximal factors, and interactions between relational and genetic vulnerabilities.

Graser, J. and U. Stangier (2018). **"Compassion and loving-kindness meditation: An overview and prospects for the application in clinical samples."** *Harvard Review of Psychiatry* 26(4): 201-215. https://journals.lww.com/hrpjournal/Fulltext/2018/07000/Compassion_and_Loving_Kindness_Meditation_An.3.aspx

Objectives This article presents a brief overview of the empirical evidence of well-established mindfulness interventions and an in-depth review of less-established compassion-based interventions (CBIs) and loving-kindness meditation (LKM). Definitions, cognitive and physiological mechanisms, and methods of assessment are discussed. Method A literature review using the databases Google Scholar, PsycINFO, and PubMed was conducted. Results Whereas the efficacy of mindfulness-based stress reduction and mindfulness-based cognitive therapy has been documented in many trials, only seven randomized, controlled trials have been completed on CBIs and LKM. In these trials, CBIs were effective in treating psychotic disorders, affective disorders with psychotic features, major depressive disorder, eating disorders, and patients with suicide attempts in the past year; LKM was effective in treating chronic pain; and a combination of both was effective for borderline personality disorder. A larger number of nonrandomized studies indicate that CBIs and LKM may be effective in treating a wide range of clinical conditions, including depression, anxiety disorders, chronic pain, and posttraumatic stress disorder. Conclusions Further

studies are needed to confirm the promising effects of CBIs and LKM. Preliminary evidence suggests that both approaches might be beneficial across various clinical populations. Future studies need to clarify whether these approaches might be options as stand-alone treatments or as adjuncts or augmentation of evidence-based methods in psychotherapy.

Hodson, G., A. Book, et al. (2018). **"Is the dark triad common factor distinct from low honesty-humility?"** *Journal of Research in Personality* 73: 123-129. <http://www.sciencedirect.com/science/article/pii/S0092656617301150>

There is interest in the psychological meaning of the variance shared among the "Dark Triad" variables (narcissism, Machiavellianism, psychopathy). Unknown is the degree to which this common variance is distinct from that of the basic personality dimensions. We test the extent to which the latent Dark Triad overlaps with the low pole of the HEXACO Honesty-Humility factor (traits of sincerity, fairness, greed avoidance, and modesty). Using meta-analytic estimates from self-report data (N = 1402, k = 4) we find a near-complete overlap (latent correlation -0.95). Peer report data show a similar pattern. The latent Dark Triad corresponds almost completely with the opposite pole of Honesty-Humility, contrary to assertions that the common Dark Triad variance is distinct from other personality constructs.

Hoyt, C. L., R. B. Forsyth, et al. (2018). **"Social dominance orientation moderates the effectiveness of mindset messages."** 57(2): 448-460. <https://onlinelibrary.wiley.com/doi/abs/10.1111/bjso.12238>

(Available in free full text) In this work, we examine whether differences in social dominance orientation (SDO) moderate the effectiveness of mindsets of intelligence messages. We suggest that SDO is a foundational ideological belief system, on which individuals vary, that maintains the desire to endorse fixed beliefs about the nature of human intelligence. Thus, attempts to change individuals' mindsets should be met with resistance from those who strongly endorse the social dominance ideology - individuals high on SDO. In contrast, individuals low on SDO are less likely to use mindsets of intelligence to justify an ideological belief system, and thus, mindset manipulations should be effective for them. We test these predictions across three experimental studies (NStudy1 = 271, NStudy2 = 207, NStudy3 = 313). Across the studies, we find that individuals who are high, relative to low, on SDO have more fixed beliefs about the nature of intelligence and show smaller effects of manipulations of mindsets. However, when comparing to a control condition, there was no evidence that high-SDO participants resisted the growth message that contradicts their ideology more than the fixed one that supports it; additionally, low-SDO participants showed heightened responsiveness to a fixed message. We discuss implications for theoretical advances in our understanding of mindsets.

Hudson, N. W. and R. C. Fraley (2018). **"Moving toward greater security: The effects of repeatedly priming attachment security and anxiety."** *Journal of Research in Personality* 74: 147-157. <http://www.sciencedirect.com/science/article/pii/S0092656618300345>

Contemporary models of personality development suggest that state-level changes that are maintained for long periods of time have the potential to coalesce into more enduring trait-level changes. In this research, we explored whether repeatedly increasing participants' state-level attachment security via priming might reduce trait-level changes over the course of four months. Results indicated that both repeated security and anxiety primes were effective in reducing participants' trait levels of attachment anxiety over time. In contrast, neither prime generally affected participants' well-being. The fact that both primes had similar results suggests that one "active ingredient" in attachment priming may be reflecting upon close relationships—irrespective of the valence of those relationships. Moreover, our findings are compatible with the notion that repeated or prolonged changes to state-level security have the potential to coalesce into trait-level changes.

Marcus, D. K., J. Preszler, et al. (2018). **"A network of dark personality traits: What lies at the heart of darkness?"** *Journal of Research in Personality* 73: 56-62. <http://www.sciencedirect.com/science/article/pii/S0092656617301095>

The question of whether there is a common element at the core of the various dark personality traits (e.g., psychopathy, narcissism, Machiavellianism, spitefulness, aggressiveness) has been the subject of debate. Callousness, manipulateness, and disagreeableness have all been nominated as possibly serving as the core of these dark traits. Network analysis, which graphically and quantitatively describes the centrality of various related traits, provides a novel technique for examining this issue. We estimated an association network and an Adaptive Least Absolute Shrinkage and Selection Operator network for two large samples, one college student sample (N = 2831) and one mixed college student and Mechanical Turk sample (N = 844). Interpersonal manipulation and callousness were the traits that were central to the networks.

Palmer, C. A. and A. L. Gentzler (2018). **"Adults' self-reported attachment influences their savoring ability."** *The Journal of Positive Psychology* 13(3): 290-300. <https://doi.org/10.1080/17439760.2017.1279206>

Positive affect is important for well-being, yet little is known about individual differences in the ability to up-regulate (savor) positive emotions. In a sample of 120 adults (ages 18-94; 62.5% female), this study extends correlational work by examining how attachment relates to self-reported savoring and to an experimentally-induced behavioral savoring task where participants were randomly assigned to reflect on a positive event (or complete a control task). Avoidance was related to lower trait savoring, and the effects of attachment on experimentally-induced savoring differed by the type of event participants savored. Avoidance was related to poorer affective outcomes after savoring interpersonal events but was unrelated to affective outcomes for non-interpersonal events. Anxiety was related to better outcomes after savoring non-interpersonal events but was unrelated to savoring interpersonal events. Overall, effects suggest that more insecurely attached adults may not savor as often, and may have difficulty savoring interpersonal events but not non-interpersonal events.

Przyrembel, M. and T. Singer (2018). **"Experiencing meditation – evidence for differential effects of three contemplative mental practices in micro-phenomenological interviews."** *Consciousness and Cognition* 62: 82-101. <http://www.sciencedirect.com/science/article/pii/S1053810017303252>

Despite increasing interest in effects of meditation, systematic in-depth research on how it qualitatively feels to engage in different kinds of contemplative practices is still missing. To fill this gap, we explore the validity of Micro-phenomenological Interviews (MpI) to assess experiences during breathing meditation (BM), observing-thought meditation (OTM), and loving-kindness meditation (LKM). We performed psycholinguistic analyses, quantitative ratings and qualitative explorations of 104 MpI (N = 57). All results reveal differential affective, bodily and sensorial fingerprints: BM-transcripts contain the most body-related vocabulary, specifically sensations in nose and abdomen. OTM-transcripts contain the most cognition-related vocabulary. OTM is experienced in head and face. LKM-transcripts contain the most vocabulary related to socio-affective processes. LKM is associated to love, sensations around the heart, and warmth. The LKM-outcomes were replicated with another independent set of MpI. These findings verify the merit of MpI as a scientific tool to gain reliable first-person data beyond questionnaires or rating scales.

Rubel, J. A., E. Bar-Kalifa, et al. (2018). **"Congruence of therapeutic bond perceptions and its relation to treatment outcome: Within- and between-dyad effects."** *J Consult Clin Psychol* 86(4): 341-353.
<http://psycnet.apa.org/doiLanding?doi=10.1037%2Fccp0000280>

OBJECTIVE: The present study investigates the association between congruence of patients' and therapists' perceptions of the therapeutic bond and symptom improvement. **METHOD:** Bond congruence-outcome associations were examined on the within- and between-dyad level for 580 patients (mainly depression and anxiety) receiving cognitive-behavioral therapy. Symptom change was assessed on a session-to-session level as well as from pre- to posttreatment. For the between-dyad analyses, the truth and bias model was applied. For the within-dyad analyses, polynomial regression and response surface analysis were conducted. **RESULTS:** On the between-dyad level, higher temporal congruence between patients' and therapists' bond ratings (i.e., their correlation) was associated with better treatment outcomes. Additionally, the average discrepancy between therapists' and patients' bond ratings showed a significant quadratic association with treatment outcome. A tendency for therapists to moderately rate the bond lower than their patients' showed lowest posttreatment symptom scores. On the within-dyad level, we found that when patients' and therapists' ratings were in "agreement," higher bond scores were associated with fewer next-session symptoms. For "disagreement," the results showed that if therapists rated the bond as weak, whereas their patients rated it as strong, higher subsequent symptom distress was observed than if patients rated the bond as weak and their therapists rated it as strong. **CONCLUSIONS:** The present study highlights the importance of therapists being vigilant to session-to-session changes in the therapeutic bond to adjust their interventions accordingly. (PsycINFO Database Record

Shepherd, A. M., S. S. Schnitker, et al. (2018). **"Developing the good physician: Spirituality affects the development of virtues and moral intuitions in medical students."** *The Journal of Positive Psychology* 13(2): 143-154.
<https://doi.org/10.1080/17439760.2016.1269185>

The Project on the Good Physician is a national longitudinal study of moral and professional formation of American physicians over the course of medical training. The purpose of this paper is to examine the processes by which spirituality influences the development of three virtues (mindfulness, empathic compassion, and generosity) in medical students as mediated by the moral intuition to care/harm, as well as make predictions as to how this type of study could be generalizable to other populations. Study participants were 563 medical students recruited by the University of Chicago from 24 medical schools across the U.S. (54.7% male, 57% white) who completed measures assessing virtue formation 9 months apart. Path analysis of a cascade model showed that spirituality (but not religiousness) was directly and indirectly related to change in the virtue empathic compassion, and also indirectly related to change in the virtue generosity. Moreover, the moral intuition to care/harm partially mediated the association between spirituality and the virtues of empathic compassion and generosity (but not mindfulness).

Wang, C., C. H. Schmid, et al. (2018). **"Effect of tai chi versus aerobic exercise for fibromyalgia: Comparative effectiveness randomized controlled trial."** *Br Med J* 360. <https://www.bmj.com/content/bmj/360/bmj.k851.full.pdf>

(Available in free full text) Objectives To determine the effectiveness of tai chi interventions compared with aerobic exercise, a current core standard treatment in patients with fibromyalgia, and to test whether the effectiveness of tai chi depends on its dosage or duration. Design Prospective, randomized, 52 week, single blind comparative effectiveness trial. Setting Urban tertiary care academic hospital in the United States between March 2012 and September 2016. Participants 226 adults with fibromyalgia (as defined by the American College of Rheumatology 1990 and 2010 criteria) were included in the intention to treat analyses: 151 were assigned to one of four tai chi groups and 75 to an aerobic exercise group. Interventions Participants were randomly assigned to either supervised aerobic exercise (24 weeks, twice weekly) or one of four classic Yang style supervised tai chi interventions (12 or 24 weeks, once or twice weekly). Participants were followed for 52 weeks. Adherence was rigorously encouraged in person and by telephone. Main outcome measures The primary outcome was change in the revised fibromyalgia impact questionnaire (FIQR) scores at 24 weeks compared with baseline. Secondary outcomes included changes of scores in patient's global assessment, anxiety, depression, self efficacy, coping strategies, physical functional performance, functional limitation, sleep, and health related quality of life. Results FIQR scores improved in all five treatment groups, but the combined tai chi groups improved statistically significantly more than the aerobic exercise group in FIQR scores at 24 weeks (difference between groups=5.5 points, 95% confidence interval 0.6 to 10.4, P=0.03) and several secondary outcomes (patient's global assessment=0.9 points, 0.3 to 1.4, P=0.005; anxiety=1.2 points, 0.3 to 2.1, P=0.006; self efficacy=1.0 points, 0.5 to 1.6, P=0.0004; and coping strategies, 2.6 points, 0.8 to 4.3, P=0.005). Tai chi treatment compared with aerobic exercise administered with the same intensity and duration (24 weeks, twice weekly) had greater benefit (between group difference in FIQR scores=16.2 points, 8.7 to 23.6, P<0.001). The groups who received tai chi for 24 weeks showed greater improvements than those who received it for 12 weeks (difference in FIQR scores=9.6 points, 2.6 to 16.6, P=0.007). There was no significant increase in benefit for groups who received tai chi twice weekly compared with once weekly. Participants attended the tai chi training sessions more often than participants attended aerobic exercise. The effects of tai chi were consistent across all instructors. No serious adverse events related to the interventions were reported. Conclusion Tai chi mind-body treatment results in similar or greater improvement in symptoms than aerobic exercise, the current most commonly prescribed non-drug treatment, for a variety of outcomes for patients with fibromyalgia. Longer duration of tai chi showed greater improvement. This mind-body approach may be considered a therapeutic option in the multidisciplinary management of fibromyalgia. Trial registration ClinicalTrials.gov NCT01420640.

Yoon, S., V. Dang, et al. (2018). **"Are attitudes towards emotions associated with depression? A conceptual and meta-analytic review."** *Journal of Affective Disorders* 232: 329-340.
<http://www.sciencedirect.com/science/article/pii/S0165032717323789>

Objectives We performed a conceptual and meta-analytic review of the relationship between negative cognitive and affective evaluations of negative emotional experiences (negative ATE) and depression. We examined the negative ATE-depression relationship in terms of three ATE constructs: fear of emotion, non-acceptance of emotion, and distress intolerance. We also explored whether the negative ATE-depression relationship differs as a function of specific emotions. **Methods** Seventy articles with a total sample of 19950 adults were included in the general analysis, and 10 studies with a total sample of 1726 were included in the emotion-specific analysis. **Results** In the general analysis, negative ATE was associated with depression with a medium to large effect. Notably, this effect size was stronger than previously observed associations between emotion regulation strategies and depression (Aldao et al., 2010). In the emotion-specific analysis, negative attitudes towards depressive affect had a particularly strong association with depression. **Limitations** Limitations include heterogeneity in effect sizes and a small number of samples for the emotion-specific analyses. **Conclusions** The present review is the first to establish a systematic relationship between negative ATE and depression. We close with suggestions for future work designed to understand why negative ATE is related to depression, which can lead to understanding of depression's etiology and ways to refine interventions to alter ATE.

Young, K. S., A. M. van der Velden, et al. (2018). **"The impact of mindfulness-based interventions on brain activity: A systematic review of functional magnetic resonance imaging studies."** *Neurosci Biobehav Rev* 84: 424-433. <https://www.ncbi.nlm.nih.gov/pubmed/28797556>

Mindfulness-based interventions are increasingly used in the treatment and prevention of mental health conditions. Despite this, the mechanisms of change for such interventions are only beginning to be understood, with a number of recent studies assessing changes in brain activity. The aim of this systematic review was to assess changes in brain functioning associated with manualised 8-session mindfulness interventions. Searches of PubMed and Scopus databases resulted in 39 papers, 7 of which were eligible for inclusion. The most consistent longitudinal effect observed was increased insular cortex activity following mindfulness-based interventions. In contrast to previous reviews, we did not find robust evidence for increased activity in specific prefrontal cortex sub-regions. These findings suggest that mindfulness interventions are associated with changes in functioning of the insula, plausibly impacting awareness of internal reactions 'in-the-moment'. The studies reviewed here demonstrated a variety of effects across populations and tasks, pointing to the need for greater consistency in future study design.

Zuckerman, M., C. Li, et al. (2018). **"Religion as an exchange system: The interchangeability of god and government in a provider role."** *Pers Soc Psychol Bull*: 146167218764656. <https://www.ncbi.nlm.nih.gov/pubmed/29649367>

An exchange model of religion implies that if a secular entity such as government provides what people need, they will be less likely to seek help from supernatural entities. Controlling for quality of life and income inequality (Gini), we found that better government services were related to lower religiosity among countries (Study 1) and states in the United States (Study 2). Study 2 also showed that during 2008-2013, better government services in a specific year predicted lower religiosity 1 to 2 years later. In both studies, a combination of better government services and quality of life was related to a particularly low level of religiosity. Among countries, government services moderated the relation between religiosity and two measures of well-being, such that religiosity was related to greater well-being only when government services were low. We discuss the relation between the exchange model and other theoretical approaches to religion.