

35 positive psychology relevant abstracts

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(Anderson, Monroy et al. 2018; Boothby, Cooney et al. 2018; Bruk, Scholl et al. 2018; Cesario and Johnson 2018; Gebauer, Nehrlich et al. 2018; Ghielen, van Woerkom et al. 2018; Hui and Kogan 2018; Jachimowicz, To et al. 2018; Jachimowicz, Wihler et al. 2018; Jans-Beken, Lataster et al. 2018; Jungaberle, Thal et al. 2018; Kaufman 2018; Kerr, Siegle et al. 2018; Le, Saltsman et al. 2018; Lewis 2018; Mortillaro and Dukes 2018; Mrazek, Ihm et al. 2018; Neubauer, Pribil et al. 2018; Rottenberg, Devendorf et al. 2018; Ryan, Soenens et al. 2018; Ryan and Ryan 2018; Schlegel and Mortillaro 2018; Schmidt, Nagy et al. 2018; Velten, Bieda et al. 2018; Watkins, Emmons et al. 2018; Yu and Levesque-Bristol 2018; Grossman, Wang et al. 2019; Grossmann, Oakes et al. 2019; Hadden and Smith 2019; Jackson, Firth et al. 2019; Kaya, Iwamoto et al. 2019; Margana, Bhogal et al. 2019; Muise, Harasymchuk et al. 2019; Ocean, Howley et al. 2019; Stephan, Sutin et al. 2019)

Anderson, C. L., M. Monroy, et al. (2018). "**Awe in nature heals: Evidence from military veterans, at-risk youth, and college students.**" *Emotion* 18: 1195-1202. <https://psycnet.apa.org/doiLanding?doi=10.1037%2Femo0000442>

The power of nature to both heal and inspire awe has been noted by many great thinkers. However, no study has examined how the impact of nature on well-being and stress-related symptoms is explained by experiences of awe. In the present investigation, we examine this process in studies of extraordinary and everyday nature experiences. In Study 1, awe experienced by military veterans and youth from underserved communities while whitewater rafting, above and beyond all the other positive emotions measured, predicted changes in well-being and stress-related symptoms one week later. In Study 2, the nature experiences that undergraduate students had during their everyday lives led to more awe, which mediated the effect of nature experience on improvements in well-being. We discuss how accounting for people's emotional experiences during outdoors activities can increase our understanding of how nature impacts people's well-being.

Boothby, E. J., G. Cooney, et al. (2018). "**The liking gap in conversations: Do people like us more than we think?**" *Psychological Science* 0(0): 0956797618783714. <http://journals.sagepub.com/doi/abs/10.1177/0956797618783714>

Having conversations with new people is an important and rewarding part of social life. Yet conversations can also be intimidating and anxiety provoking, and this makes people wonder and worry about what their conversation partners really think of them. Are people accurate in their estimates? We found that following interactions, people systematically underestimated how much their conversation partners liked them and enjoyed their company, an illusion we call the liking gap. We observed the liking gap as strangers got acquainted in the laboratory, as first-year college students got to know their dorm mates, and as formerly unacquainted members of the general public got to know each other during a personal development workshop. The liking gap persisted in conversations of varying lengths and even lasted for several months, as college dorm mates developed new relationships. Our studies suggest that after people have conversations, they are liked more than they know.

Bruk, A., S. G. Scholl, et al. (2018). "**Beautiful mess effect: Self-other differences in evaluation of showing vulnerability.**" *J Pers Soc Psychol* 115(2): 192-205. <https://www.ncbi.nlm.nih.gov/pubmed/30024240>

Confessing romantic feelings, asking for help, or taking responsibility for a mistake constitute just a few examples of situations that require showing one's vulnerability. Out of fear, many individuals decide against it. To explore whether these fears are reflected in the evaluation of others, we investigate self-other differences in evaluation of showing vulnerability. Drawing on construal level theory, we hypothesize that the mental representations of individuals who find themselves in a vulnerable situation are rather concrete, shifting the focus on the negative aspects of making oneself vulnerable and resulting in a relatively negative evaluation of showing vulnerability. By contrast, when depicting others in a vulnerable situation, individuals are expected to represent it more abstractly, focus more on the positive aspects of showing vulnerability, and, therefore, evaluate it more positively. A total of seven studies demonstrate the predicted self-other differences in the evaluation of showing vulnerability in various situations, such as confessing love, revealing imperfections of one's body, or asking for help, including evidence on the generalizability of the effect in a real-life situation. Moreover, we report empirical evidence on the crucial role of level of construal in the emergence of the observed self-other differences.

Cesario, J. and D. J. Johnson (2018). "**Power poseur: Bodily expansiveness does not matter in dyadic interactions.**" *Social Psychological and Personality Science* 9(7): 781-789. <https://journals.sagepub.com/doi/abs/10.1177/1948550617725153>

(Available in free full text) Strong claims have been made that power poses can significantly improve one's life. Starting from an evolutionary perspective, we reason that expansive poses will have no impact in more realistic situations, as in the presence of an interaction partner or when participants are aware of what the pose should accomplish. Across four dyadic studies including both commonly used outcomes and a negotiation task (which could actually have direct benefits for one's life), we find nearly uniform null effects of holding expansive poses, despite checks confirming the success of the manipulation. For example, in two of the studies, participants watched a popular TED talk on power poses, held an expansive pose, and then completed a negotiation in the presence of a partner, as might happen in real life. We argue that researchers should stop recommending power poses as an empirically supported strategy for improving one's life.

Gebauer, J. E., A. D. Nehrlich, et al. (2018). "**Mind-body practices and the self: Yoga and meditation do not quiet the ego but instead boost self-enhancement.**" *Psychol Sci* 29(8): 1299-1308. <https://www.ncbi.nlm.nih.gov/pubmed/29932807>

Mind-body practices enjoy immense public and scientific interest. Yoga and meditation are highly popular. Purportedly, they foster well-being by curtailing self-enhancement bias. However, this "ego-quieting" effect contradicts an apparent psychological universal, the self-centrality principle. According to this principle, practicing any skill renders that skill self-central, and self-centrality breeds self-enhancement bias. We examined those opposing predictions in the first tests of mind-body practices' self-enhancement effects. In Experiment 1, we followed 93 yoga students over 15 weeks, assessing self-centrality and self-enhancement bias after yoga practice (yoga condition, n = 246) and without practice (control condition, n = 231). In Experiment 2, we followed 162 meditators over 4 weeks (meditation condition: n = 246; control condition: n = 245). Self-enhancement bias was higher in the yoga (Experiment 1) and meditation (Experiment 2) conditions, and those effects were mediated by greater self-centrality. Additionally, greater self-enhancement bias mediated mind-body practices' well-being benefits. Evidently, neither yoga nor meditation fully quiet the ego; to the contrary, they boost self-enhancement.

Ghielen, S. T. S., M. van Woerkom, et al. (2018). "**Promoting positive outcomes through strengths interventions: A literature review.**" *The Journal of Positive Psychology* 13(6): 573-585. <https://doi.org/10.1080/17439760.2017.1365164>

This paper reviews studies of strengths interventions published between 2011 and 2016. Strengths interventions aim to promote well-being or other positive outcomes by facilitating strengths identification, and sometimes also strengths use and/or development. The present review provides an overview of the different strengths interventions that are investigated, their effectiveness, and moderating and mediating factors. Results of the 18 (quasi-)experimental studies that were identified through a systematic literature search showed that all types of strengths interventions had positive outcomes in terms of well-being, job outcomes (e.g. work engagement), personal growth initiative, and group or team outcomes (e.g. class cohesion). Hope, positive affect, authentic self-expression, perceptions of the employment relationship, and feelings of social worth were identified as mediators, whereas extraversion and having specific strengths (e.g. persistence) were identified as moderators. Based on these findings, we discuss implications for future research and practice.

Grossman, M. R., D. Wang, et al. (2019). "**Variations in daily cognitive affective states as a function of variations in daily generative activity.**" *J Happiness Stud* 20(1): 19-34. <https://doi.org/10.1007/s10902-017-9935-1>

Greater perceived and actual generative, or contributory, engagement predicts more favorable psychosocial and physical well-being with advancing age. Although theoretical formulations of prosocial behavior suggest self-enhancement, social connectedness, and positive emotion pathways might underlie such links, empirical examination of these connections remains limited. These associations were examined using data from the National Study of Daily Experiences ($n = 1747$) in the National Survey of Midlife Development in the United States. Multilevel regression models examined person-level and day-level indicators of three forms of generative activity (volunteering, emotional support, informal help) as predictors of daily self-enhancement, social connectedness, and positive affect states over an 8-day period, controlling for sociodemographic factors. At the daily level, both volunteering and giving informal help were found to be associated with greater feelings of self-enhancement and social connectedness. Though the between-person effects of informal help were not significant, individuals who volunteered more, on average, also experienced greater average feelings of positive affect and social connectedness than those who volunteered less or not at all. In contrast, giving emotional support to others was associated with slightly lower levels of these cognitive-affective correlates on a given day, and on average. Observed daily cognitive-affective correlates of different generative activities suggest potential pathways through which such activities may be linked to well-being over time.

Grossmann, I., H. Oakes, et al. (2019). "**Wise reasoning benefits from emodiversity, irrespective of emotional intensity.**" *Journal of Experimental Psychology: General*

The role of emotions in wise reasoning is not well understood. On the one hand, work on emotional regulation suggests that downregulating intense emotions may lead to wiser reasoning. On the other hand, emerging work suggests that recognizing and balancing emotions provides critical insights into life experiences, suggesting an alternative path to wiser reasoning. We present a series of observational, diary, and experimental studies ($N = 3,678$ participants) addressing these possibilities, examining how wisdom-related characteristics of reasoning—epistemic humility, recognition of a world in flux, self-transcendence, recognition of diverse perspectives on an issue, and search for integration of diverse perspectives/compromise—relate to emotional intensity and to emodiversity (i.e., emotional richness and evenness) in a given situation. Across 5 studies, testing wisdom nominees and examining individual differences and manipulated wise reasoning, wisdom-related characteristics appeared in conjunction with emodiversity, independent of downregulated emotional intensity. The positive association between emodiversity and wisdom-related characteristics occurred consistently for daily challenges, unresolved interpersonal conflicts, as well as political conflicts. The relationship between emotional intensity and wisdom-related characteristics was less systematic, with some studies showing a positive (rather than negative) association between emotional intensity and wisdom. Together, these results demonstrate that wise reasoning does not necessarily require uniform emotional downregulation. Instead, wise reasoning can also benefit from a rich and balanced emotional life.

Hadden, B. W. and C. V. Smith (2019). "**I gotta say, today was a good (and meaningful) day: Daily meaning in life as a potential basic psychological need.**" *J Happiness Stud* 20(1): 185-202. <https://doi.org/10.1007/s10902-017-9946-y>

Prior research has found that global meaning in life promotes several forms of well-being such as better coping and lower stress, and suggests that meaning in life is a common experience that is shaped by daily experiences. We build on this research by testing the possibility that meaning is a basic psychological need. In Study 1, participants ($N = 195$) completed a 21-day diary that included daily assessments of depressive symptomology, affect, and self-esteem. In Study 2, participants ($N = 142$) completed a 14-day diary, adding stress and vitality as additional indicators of well-being. Across both studies, we found that meaning in life is a consistent predictor of psychological well-being. Further, in Study 2, we tested the unique role of meaning in life against other basic psychological needs (i.e., autonomy, competence, relatedness), finding that meaning in life continues to predict well-being even in the presence of other psychological needs.

Hui, B. P. H. and A. Kogan (2018). "**Daily ups and downs: An event-sampling study of the mediated moderation of prosocial engagement on well-being.**" *Social Psychological and Personality Science* 9(6): 675-688. <https://journals.sagepub.com/doi/abs/10.1177/1948550617722197>

Numerous studies have shown that acting prosocially promotes the altruist's well-being. What has been less clear, however, is when the effect is the strongest and what mechanism is behind the well-being benefits of prosocial action. We asked a community sample ($N = 383$) to record their prosocial engagement, well-being levels, and autonomy, relatedness, and competence 4 times daily for 2 weeks using an app-based event-sampling method. We found that only one's competence—and neither autonomy nor relatedness—at one time point ($t - 1$) moderated the effect of prosocial engagement on hedonic and eudaimonic well-being at a subsequent time point (t). Specifically, when participants reported lower competence levels at $t - 1$, the relationship between acting prosocially and well-being was stronger at t . We further demonstrated that this interaction was mediated by competence levels at t .

Jachimowicz, J., C. To, et al. (2018). "**Igniting passion from within: How lay beliefs guide the pursuit of work passion and influence turnover.**" *PsyArXiv*. <https://psyarxiv.com/qj6y9>

(Downloadable in free full text) Existing research suggests that attaining passion for work involves engaging in activities that people both "like" and see as "important." We show that these two components of work passion have opposing effects on whether people report passion gaps, defined as the experience of having less work passion than desired. Through five studies using correlational, field, and experimental designs, we find that people who believe work passion means pursuing what they "like" (i.e., adopting a feelings mindset) experience larger passion gaps, in comparison to people who believe work passion means pursuing what they see as "important" (i.e., a values mindset). Feeling less passion for work than desired holds organizational relevance: people suffering from larger passion gaps are more likely to consider quitting their job. The current research furthers scholars' understanding of work passion, and suggests practical ways to help individuals attain desired levels of work passion.

Jachimowicz, J. M., A. Wihler, et al. (2018). **"Why grit requires perseverance and passion to positively predict performance."** *PNAS* 115(40): 9980-9985. <http://www.pnas.org/content/pnas/115/40/9980.full.pdf>

Grit has captured the public imagination and crept into educational policy throughout the United States. However, because prior studies linking grit and performance are beset by contradictory evidence, commentators increasingly state that grit is overhyped. We propose that the inconsistency between grit's initial promise and its subsequent lack of empirical support has occurred because grit's measurement has not matched its definition. Although grit is defined as the combination of perseverance and passion, its measurement has focused on perseverance and has not adequately captured passion. In a metaanalysis of 127 studies and two field studies, we show that passion is a key component of grit. The current theory and results suggest that perseverance without passion isn't grit, but merely a grind. Prior studies linking grit—defined as perseverance and passion for long-term goals—to performance are beset by contradictory evidence. As a result, commentators have increasingly declared that grit has limited effects. We propose that this inconsistent evidence has occurred because prior research has emphasized perseverance and ignored, both theoretically and empirically, the critical role of passion, which we define as a strong feeling toward a personally important value/preference that motivates intentions and behaviors to express that value/preference. We suggest that combining the grit scale—which only captures perseverance—with a measure that assesses whether individuals attain desired levels of passion will predict performance. We first metaanalyzed 127 studies ($n = 45,485$) that used the grit scale and assessed performance, and found that effect sizes are larger in studies where participants were more passionate for the performance domain. Second, in a survey of employees matched to supervisor-rated job performance ($n = 422$), we found that the combination of perseverance, measured through the grit scale, and passion attainment, measured through a new scale, predicted higher performance. A final study measured perseverance and passion attainment in a sample of students ($n = 248$) and linked these to their grade-point average (GPA), finding that the combination of perseverance and passion attainment predicted higher GPAs in part through increased immersion. The present results help resolve the mixed evidence of grit's relationship with performance by highlighting the important role that passion plays in predicting performance. By adequately measuring both perseverance and passion, the present research uncovers grit's true predictive power.

Jackson, S. E., J. Firth, et al. (2019). **"Decline in sexuality and wellbeing in older adults: A population-based study."** *Journal of Affective Disorders* 245: 912-917. <http://www.sciencedirect.com/science/article/pii/S0165032718319414>

Background Age-related declines in sexuality and increase in mental health complications have been well documented. However, whether these two phenomena are related has not been explored. The present study therefore aimed to investigate associations between a decline in sexuality and markers of mental health and wellbeing. Method Data were collected in 2012/13 from 2614 men and 3217 women participating in the English Longitudinal Study of Ageing, a population-representative panel study of older adults (≥ 50 years). Past-year declines in sexual desire, frequency of sexual activities, and sexual function were self-reported. Three markers of wellbeing (depressive symptoms, quality of life and life satisfaction) were assessed using validated scales. Associations between declines in sexuality and wellbeing were analysed using one-way independent analyses of variance, adjusted for a range of socio-demographic and health-related covariates. Results Men and women who reported a past-year decline in sexual desire or frequency of sexual activities had a higher number of depressive symptoms (desire $p = 0.001$, frequency $p < 0.001$) and lower quality of life (all $p < 0.001$). Decline in sexual desire was also associated with lower life satisfaction in men ($p = 0.012$) and decline in frequency of sexual activities was associated with lower life satisfaction in women ($p < 0.001$). Declines in erectile function in men and ability to become sexually aroused in women were also significantly associated with more depressive symptoms ($p < 0.001$), lower quality of life ($p < 0.001$) and lower life satisfaction ($p < 0.001$ in men, $p = 0.024$ in women). Conclusion Older adults who experience a decline in sexuality report poorer wellbeing than those who do not.

Jans-Beken, L., J. Lataster, et al. (2018). **"Gratitude, psychopathology and subjective well-being: Results from a 7.5-month prospective general population study."** *Journal of Happiness Studies* 19(6): 1673-1689. <https://doi.org/10.1007/s10902-017-9893-7>

(Available in free full text) Gratitude is considered an important source of human strength in achieving and maintaining good mental health. Although complete mental health encompasses the absence of psychopathology and the presence of subjective well-being, no studies to date have examined relations between gratitude and both mental health dimensions together. Moreover, most studies focused on specific samples with a restricted demographic range. Our study, therefore, examined (a) demographic variability in the grateful trait, and (b) prospective associations between gratitude and both dimensions of mental health: psychopathology and subjective well-being. Using a four wave prospective survey design in a large ($N = 706$) sample of Dutch adults (M age = 44, SD age = 14, Range = 18–80), we measured gratitude with the SGRAT, symptoms of psychopathology with the SCL-90, and subjective well-being with the PANAS and SWLS. Gratitude was significantly associated with age, gender, education level, and employment status. Multilevel time-lagged regression analyses showed that the grateful trait did not predict symptoms of psychopathology, but was a significant albeit weak predictor of subjective well-being, when adjusting for the effects of demographic factors, and prior levels of subjective well-being and psychopathology. Our findings indicate that the grateful trait is associated with demographic factors, and shows complex connections with the presence of well-being and absence of psychopathology. These dynamics should be taken into consideration when studying the role of gratitude in mental health, and developing, applying, and evaluating gratitude interventions with the aim of enhancing subjective well-being and/or reducing psychopathology.

Jungaberle, H., S. Thal, et al. (2018). **"Positive psychology in the investigation of psychedelics and entactogens: A critical review."** *Neuropharmacology* 142: 179-199. <http://www.sciencedirect.com/science/article/pii/S0028390818303368>

Rationale We reviewed the concepts and empirical findings in studies with psychedelics and entactogens related to positive psychology – the study of healthy human functioning, well-being and eudaemonia. It is an unresolved question how beneficial effects of psychedelics and entactogens are related to the potential risks of these substances – particularly in non-clinical settings. Methods We searched in PubMed, PsychINFO and the Cochrane Library for controlled clinical and epidemiological studies which applied concepts from positive psychology. We included $N = 77$ eligible studies with 9876 participants published before November 1st, 2017: (1) quantitative studies ($N = 54$), (2) preliminary or exploratory studies and reviews not including meta-analyses ($N = 17$), and (3) studies evidencing primarily negative results ($N = 6$). Results Positive psychology concepts have been applied for measuring effects of clinical trials, recreational and ceremonial use of psychedelics and entactogens. Psychedelics and entactogens were shown to produce acute and long-term effects on mood, well-being, prosocial behaviours, empathy, cognitive flexibility, creativity, personality factors like openness, value orientations, nature-relatedness, spirituality, self-transcendence and mindfulness-related capabilities. Conclusions There is preliminary evidence for beneficial effects of psychedelics and entactogens on measures of positive psychology in clinical and healthy populations, however their sustainability remains largely unresolved. The reported results must be considered preliminary due to methodological restrictions. Since longitudinal data on both positive and adverse effects of psychedelics are lacking, more rigorous and standardized measures from positive psychology should be applied in less biased populations with prospective

longitudinal designs to carefully assess the benefit-risk-ratio. This article is part of the Special Issue entitled 'Psychedelics: New Doors, Altered Perceptions'.

Kaufman, S. B. (2018). **"Self-actualizing people in the 21st century: Integration with contemporary theory and research on personality and well-being."** *Journal of Humanistic Psychology* 0(0): 0022167818809187. <https://journals.sagepub.com/doi/abs/10.1177/0022167818809187>

More than 70 years ago, Maslow put forward an integrated theory of human motivation that still captures the public imagination. Still, integration with modern theory and research remains elusive. The current study aims to fill this gap in the psychological literature, linking Maslow's theory to contemporary theory and research on personality and well-being. Toward this aim, the new 30-item "Characteristics of Self-Actualization Scale (CSAS)" was developed. Scale validation showed that 10 characteristics of self-actualizing people as proposed by Maslow load on a general factor of self-actualization and demonstrate external validity. Those reporting more characteristics of self-actualization were more motivated by growth, exploration, and love of humanity than the fulfillment of deficiencies in basic needs. The characteristics of self-actualization were also associated with greater well-being across a number of indicators of well-being, including greater life satisfaction, self-acceptance, positive relations, environmental mastery, personal growth, autonomy, purpose in life, and self-transcendent experiences. Self-actualization scores also predicted work-related outcomes and creativity across multiple domains of achievement. The results provide support for Maslow's proposed characteristics of self-actualization and basic motivational framework, bringing the concept of self-actualization so frequently discussed by the founding humanistic psychologists firmly into the 21st century. [See the helpful BPS Research Digest discussion of this article at <https://tinyurl.com/ycxetpbx> and take the test at <https://tinyurl.com/y82ppbqw>].

Kaya, A., D. K. Iwamoto, et al. (2019). **"The role of masculine norms and gender role conflict on prospective well-being among men."** *Psychology of Men & Masculinities* 20(1): 142-147. <https://psycnet.apa.org/record/2018-18237-001>

Masculinity has been theorized to be an anxiety-provoking state. Consequently, many researchers have examined masculinity in relation to negative psychological outcomes such as anxiety, depression, and alcohol or substance use. However, emerging research suggests that certain facets of masculinity may also be related to positive psychological outcomes and that there is a need for more empirical research examining the differential impact of distinct masculine norms on both negative and positive outcomes. Accordingly, this study longitudinally examined the influence of masculine norms and gender role conflict on eudaimonic psychological well-being among young adult college men (N = 278). Participants were recruited from a public university and completed Time 1 (baseline) measures of masculine norm conformity and gender role conflict as well as Time 2 (6 months follow-up) measure of eudaimonic well-being. Results demonstrated that both masculine norm conformity and gender role conflict were predictive of increased and decreased well-being among young adult men. Specifically, the masculine norms of power and playboy were negatively associated with prospective well-being. In addition, gender role conflict, particularly restricted emotionality, was negatively associated with well-being. The norm of winning was positively associated with prospective well-being. In sum, men's baseline adherence to traditional masculine norms was predictive of both positive and negative psychological well-being at follow-up, highlighting the differential impact of masculine norms on men's health. The study's theoretical and clinical implications, limitations, and future directions are discussed.

Kerr, M., G. J. Siegle, et al. (2018). **"Voluntary arousing negative experiences (vane): Why we like to be scared."** *Emotion*. <http://psycnet.apa.org/record/2018-51113-001>

This study examined survey data and neural reactivity associated with voluntarily engaging in high arousal negative experiences (VANE). Here we suggest how otherwise negative stimuli might be experienced as positive in the context of voluntary engagement. Participants were recruited from customers who had already purchased tickets to attend an "extreme" haunted attraction. Survey data measuring self-report affect, expectations, and experience was collected from 262 adults (139 women and 123 men; age M = 27.5 years, SD = 9.3 years) before and after their experience. Changes in electroencephalographic (EEG) indices of reactivity to cognitive and emotional tasks were further assessed from a subsample of 100 participants. Results suggested that participants' reported affect improved, particularly for those that reported feeling tired, bored, or stressed prior to the experience. Among those whose moods improved, neural reactivity decreased in response to multiple tasks. Together, these data suggest that VANE reduces neural reactivity following stress. This result could explain post-VANE euphoria and may be adaptive in that it could help individuals to cope with subsequent stressors. To the extent that this phenomenon replicates in clinical situations, it could inform clinical interventions by using VANE principles to reduce neural reactivity to subsequent stressors.

Le, P. Q., T. L. Saltsman, et al. (2018). **"When a small self means manageable obstacles: Spontaneous self-distancing predicts divergent effects of awe during a subsequent performance stressor."** *Journal of Experimental Social Psychology*. <http://www.sciencedirect.com/science/article/pii/S0022103117305620>

The emotion of awe occurs when one feels small relative to something vaster than the self; it leads to benefits such as care for others. However, because awe elicits the experience of a "small self," it is unclear to what extent awe positively versus negatively affects responses to subsequent stressors. If personal obstacles seem trivial in comparison to awe-inspiring stimuli, stressors should seem either manageable or unimportant, but if one's capabilities seem comparatively insignificant, stressors should seem unmanageable. We hypothesized that awe would have a generally positive effect on responses during a subsequent performance stressor, but that this would further depend on whether people tended to spontaneously take on a self-distanced versus self-immersed perspective. In the face of awe, focusing less on the self (self-distanced perspective) should make obstacles in particular seem trivial, whereas focusing more on the self (self-immersed) should lead one's capabilities to seem insignificant. Using the biopsychosocial model of challenge/threat, we found that spontaneous self-distancing significantly moderated awe's effects on responses during a subsequent performance stressor (speech task): For participants who self-distanced, the awe condition led to cardiovascular responses consistent with greater challenge than the neutral control condition (reflecting evaluating the stressor as more manageable); for participants who self-immersed, awe predicted relative threat (less manageable stressor). There was no support for awe making people care less about the stressor (as reflected in cardiovascular responses consistent with task engagement). This offers insight into how awe can have divergent effects on people's experiences during performance stressors.

Lewis, M. B. (2018). **"The interactions between botulinum-toxin-based facial treatments and embodied emotions."** *Scientific Reports* 8(1): 14720. <https://doi.org/10.1038/s41598-018-33119-1>

(Available in free full text) Botulinum toxin (BTX) injections reduce muscle mobility and are commonly used to treat the appearance of glabellar frown lines. Research shows that this cosmetic treatment leads to a reduction in depression. This reduction is consistent with the theory of embodied emotions because patients have a reduced ability to frown and so receive less negative feedback associated with this action. The current research explored this effect and three further hypotheses for the effects of cosmetic BTX injections based on embodied emotions. It was hypothesised that treatment of crow's feet (or laughter

lines) would reduce mood as patients' Duchenne smiles would be impaired. It was hypothesised that facial BTX treatments would impair emotional expression recognition because the ability to mimic emotions would be reduced. Finally, it was hypothesised that, as BTX treatments prevent facial expressions associated with sexual excitement, sexual function would be impaired after treatment. Twenty four BTX-treated and twelve matched participants (all female) were tested before and after treatment. Results found that BTX treatment of laughter lines was associated with increased depression scores. Further, BTX treatment was associated with reduced emotion recognition ability and sexual function. The current results add to our knowledge of the psychological effects of injections of powerful neurotoxins and broaden the scope of the embodiment of emotions.

Margana, L., M. S. Bhogal, et al. (2019). **"The roles of altruism, heroism, and physical attractiveness in female mate choice."** *Personality and Individual Differences* 137: 126-130. <http://www.sciencedirect.com/science/article/pii/S0191886918304586>

The role of prosocial behaviour in female mate choice has been extensively explored, focusing on the desirability of altruism in potential mates, as well as altruism being a mating signal. However, little research has focused on the desirability of heroism and altruism in potential partners. Furthermore, the synergistic effect of attractiveness on the desirability of prosocial behavior has only recently been explored, and to our knowledge, has not been explored in relation to the desirability of heroism in a romantic partner. We explored the effect of prosociality and attractiveness on female desirability ratings (n = 198), and whether desirability was influenced by whether women were seeking a short-term or long-term relationship. We find that women are attracted to men who display heroism and altruism, and this preference is higher when the male is attractive compared to unattractive. Furthermore, preferences for prosocial traits were higher when seeking a long-term compared to a short-term partner. Our findings add to the literature on prosocial behaviour and matechoice. Data and materials [Open Science Framework Project A76P8].

Mortillaro, M. and D. Dukes (2018). **"Jumping for joy: The importance of the body and of dynamics in the expression and recognition of positive emotions."** *Front Psychol* 9: 763. <https://www.ncbi.nlm.nih.gov/pubmed/29867704>

The majority of research on emotion expression has focused on static facial prototypes of a few selected, mostly negative emotions. Implicitly, most researchers seem to have considered all positive emotions as sharing one common signal (namely, the smile), and consequently as being largely indistinguishable from each other in terms of expression. Recently, a new wave of studies has started to challenge the traditional assumption by considering the role of multiple modalities and the dynamics in the expression and recognition of positive emotions. Based on these recent studies, we suggest that positive emotions are better expressed and correctly perceived when (a) they are communicated simultaneously through the face and body and (b) perceivers have access to dynamic stimuli. Notably, we argue that this improvement is comparatively more important for positive emotions than for negative emotions. Our view is that the misperception of positive emotions has fewer immediate and potentially life-threatening consequences than the misperception of negative emotions; therefore, from an evolutionary perspective, there was only limited benefit in the development of clear, quick signals that allow observers to draw fine distinctions between them. Consequently, we suggest that the successful communication of positive emotions requires a stronger signal than that of negative emotions, and that this signal is provided by the use of the body and the way those movements unfold. We hope our contribution to this growing field provides a new direction and a theoretical grounding for the many lines of empirical research on the expression and recognition of positive emotions.

Mrazek, A. J., E. D. Ihm, et al. (2018). **"Expanding minds: Growth mindsets of self-regulation and the influences on effort and perseverance."** *Journal of Experimental Social Psychology* 79: 164-180. <http://www.sciencedirect.com/science/article/pii/S0022103117305449>

Given that countless studies have documented the wide-ranging benefits of self-regulation, determining if and how self-regulation can be improved is an important scientific and societal priority. Existing theories suggest that the deterioration of self-regulation is partially shaped by perceptions of effort. Therefore, one promising way to sustain self-regulation may be to cultivate a growth mindset, which has been shown to affect behavior in part by altering effort attributions. Although growth mindsets—the belief that a given trait can be improved through practice—have been studied extensively, particularly in the domain of intelligence, little research has examined the effects of promoting a growth mindset specifically about self-regulation. Here five studies test how promoting a growth mindset of self-regulation impacts actual self-regulation in daily life and the laboratory. In Study 1, relative to an active control that received relationship training, an intensive self-regulation training program emphasizing a growth mindset led participants to persevere longer on impossible anagrams, which was partially mediated by altering attributions of mental fatigue. Relatively, the self-regulation training also led participants to notice more opportunities for self-control in daily life and more successfully resist everyday temptations. The subsequent four studies isolated and abbreviated the growth mindset manipulation, demonstrated improved persistence and decreased effort avoidance, and attempted to further examine the critical mediators. Collectively, results indicate that a growth mindset of self-regulation can change attributions and allocation of effort in meaningful ways that may affect the willingness to attempt challenging tasks and the perseverance required to complete them.

Muise, A., C. Harasymchuk, et al. (2019). **"Broadening your horizons: Self-expanding activities promote desire and satisfaction in established romantic relationships."** *Journal of Personality and Social Psychology* 116: 237-258. <http://psycnet.apa.org/record/2018-47337-001>

In the early stages of romantic relationships, sexual desire is often intense, but over time, as partners get to know each other, desire tends to decline. Low sexual desire has negative implications for relationship satisfaction and maintenance. Self-expansion theory suggests that engaging in novel activities with a long-term romantic partner can reignite feelings of passion from the early stages of a relationship. Across 3 studies using dyadic, daily experience, longitudinal, and experimental methods, we find evidence for our central prediction that engaging in self-expanding activities with a partner is associated with higher sexual desire. In turn, we found that higher desire fueled by self-expansion is associated with greater relationship satisfaction. Self-expansion, through sexual desire, is also associated with an increased likelihood that couples will engage in sex, and when they do engage in sex, they feel more satisfied with their sexual experiences. We also demonstrate that the benefits of self-expansion for relationship satisfaction are sustained over time, and that the effects cannot be attributed solely to increases in positive affect, time spent interacting with the partner or closeness during the activity. Implications for self-expansion theory and sexual desire maintenance in relationships are discussed.

Neubauer, A. C., A. Pribil, et al. (2018). **"The self-other knowledge asymmetry in cognitive intelligence, emotional intelligence, and creativity."** *Heliyon* 4(12): e01061-e01061. <https://www.ncbi.nlm.nih.gov/pubmed/30603696> <https://www.ncbi.nlm.nih.gov/pmc/PMC6307038/>

(Available in free full text) The self-other knowledge asymmetry model (SOKA) assumes that some personality traits might be open to oneself and other persons ('open area'), while other traits are more accurately perceived by others ('blind

spot'); a third group of traits might be visible only to oneself and not to others ('hidden area'), and finally a trait might neither be visible to oneself nor to one's peers ('unknown area'). So far, this model has been tested only for personality traits and general intelligence, not for more specific abilities; to do so was the novel intention of our study. We tested which of six abilities (verbal, numerical, and spatial intelligence; interpersonal and intrapersonal competence; and creative potential/divergent thinking ability) are in which SOKA area. We administered performance tests for the six abilities in two samples - 233 14-year-olds and 215 18-year-olds - and collected self- and peer-ratings for each domain. Numerical intelligence and creativity were judged validly both from self- and peer-perspectives ('open area'). In the younger sample verbal intelligence was validly estimated only by peers ('blind spot'), whereas the older group showed some insight into their own abilities as well ('blind spot' to 'open area'). While in the younger group only the pupils themselves could validly estimate their intra- and interpersonal competence ('hidden area'), in the older group peers were also successful in estimating other's interpersonal competence, albeit only with low accuracy ('hidden area' to 'open area'). For 18-year-olds, spatial ability was in the hidden area too, but in 14-year-olds this could neither be validly estimated by pupils themselves nor by peers ('unknown area'). These results implicate the possibility of non-optimal career choices of young people, and could, therefore, be helpful in guiding professional career counselling.

Ocean, N., P. Howley, et al. (2019). **"Lettuce be happy: A longitudinal uk study on the relationship between fruit and vegetable consumption and well-being."** *Social Science & Medicine* 222: 335-345.
<http://www.sciencedirect.com/science/article/pii/S0277953618306907>

(Available in free full text) Rationale While the role of diet in influencing physical health is now well-established, some recent research suggests that increased consumption of fruits and vegetables could play a role in enhancing mental well-being. A limitation with much of this existing research is its reliance on cross-sectional correlations, convenience samples, and/or lack of adequate controls. Objective We aim to add to the emerging literature on the relationship between fruit and vegetable consumption and well-being by using longitudinal data from a study in the United Kingdom (UK). Method We employ panel data analytical techniques on three waves collected between 2010 and 2017 (i.e., following the same individuals over time) in the UK Household Longitudinal Survey. We also control for time-variant confounders such as diet, health, and lifestyle behaviours. Results Fixed effects regressions show that mental well-being (GHQ-12) responds in a dose-response fashion to increases in both the quantity and the frequency of fruit and vegetables consumed. This relationship is robust to the use of subjective well-being (life satisfaction) instead of mental well-being. We also document a hump-shaped relationship between fruit and vegetable consumption and age. Conclusion Our findings provide further evidence that persuading people to consume more fruits and vegetables may not only benefit their physical health in the long-run, but also their mental well-being in the short-run.

Rottenberg, J., A. R. Devendorf, et al. (2018). **"The curious neglect of high functioning after psychopathology: The case of depression."** *Perspectives on Psychological Science* 13(5): 549-566.
<https://journals.sagepub.com/doi/abs/10.1177/1745691618769868>

We address a key issue at the intersection of emotion, psychopathology, and public health—the startling lack of attention to people who experience benign outcomes, and even flourish, after recovering from depression. A rereading of the epidemiological literature suggests that the orthodox view of depression as chronic, recurrent, and lifelong is overstated. A significant subset of people recover and thrive after depression, yet research on such individuals has been rare. To facilitate work on this topic, we present a generative research framework. This framework includes (a) a proposed definition of healthy end-state functioning that goes beyond a reduction in clinical symptoms, (b) recommendations for specific measures to assess high functioning, and (c) a road map for a research agenda aimed at discovering how and why people flourish after emotional disturbance. Given that depression remains the most burdensome health condition worldwide, focus on what makes these excellent outcomes possible has enormous significance for the public health.

Ryan, R. M., B. Soenens, et al. (2018). **"Reflections on self-determination theory as an organizing framework for personality psychology: Interfaces, integrations, issues, and unfinished business."** *Journal of Personality* 0(ja).
<https://doi.org/10.1111/jopy.12440>

Abstract This special issue brings together seven contributions which, in spite of the diversity of the topics and theories being covered, all make use of Self-Determination Theory (SDT) as their guiding, complementary, or contrasting framework. In this commentary we first reflect on how SDT has developed organically and conservatively from 'within' based on emerging patterns of evidence, as well through ongoing challenges from other models and frameworks. We then discuss each of the various contributions to this special issue, addressing themes that include SDT's breadth of methods, and its relevance to topics such as narcissism, wisdom, individual differences, big-five traits, and the neuropsychology of motivation, among others. Across these discussions we highlight fruitful avenues for research and cross-fertilization across the fields of personality, development, motivation, and neuroscience. At the same time, we counter some claims made about SDT, and forward certain cautions regarding the integration of SDT and other personality frameworks and models. We conclude by revisiting the value of broad theory for coordinating complex research findings across levels of analysis, and perhaps more importantly, for pointing us to the right questions.

Ryan, W. S. and R. M. Ryan (2018). **"Toward a social psychology of authenticity: Exploring within-person variation in autonomy, congruence, and genuineness using self-determination theory."** *Review of General Psychology*.
<http://dx.doi.org/10.1037/gpr0000162>

Authenticity entails autonomy, congruence, and genuineness. In this article, we use a self-determination theory framework to discuss a critical aspect of social environments that facilitates these aspects of authenticity, namely the experience of autonomy support. Although authenticity is often studied as a trait or individual difference, we review research demonstrating that authenticity varies within individuals and predicts variations in well-being. Next, we show that perceiving autonomy support within a relational context is associated with people feeling more authentic and more like their ideal selves and displaying constellations of Big 5 personality traits indicative of greater wellness in that context. To explore another important part of authenticity, being genuine in interactions with others, we review evidence linking autonomy support to situational variation in identity disclosure among lesbian, gay, and bisexual individuals. This research suggests that perceiving autonomy support within a context or relationship helps lesbian, gay, and bisexual individuals be more open about their sexual orientation and identity, which in turn affords greater opportunities for the satisfaction of not only autonomy, but competence and relatedness needs as well, facilitating well-being. We conclude by highlighting future directions in the study of authenticity's dynamic nature, and the importance of the situation in its expression and its relation to well-being.

Schlegel, K. and M. Mortillaro (2018). **"The geneva emotional competence test (geco): An ability measure of workplace emotional intelligence."** *J Appl Psychol*. <https://www.ncbi.nlm.nih.gov/pubmed/30346195>

Emotional intelligence (EI) has been frequently studied as a predictor of work criteria, but disparate approaches to defining and measuring EI have produced rather inconsistent findings. The conceptualization of EI as an ability to be measured

with performance-based tests is by many considered the most appropriate approach, but only few tests developed in this tradition exist, and none of them is designed to specifically assess EI in the workplace. The present research introduces the Geneva Emotional Competence test (GECe)-a new ability EI test measuring emotion recognition (assessed using video clips of actors), emotion understanding, emotion regulation in oneself, and emotion management in others (all assessed with situational judgment items of work-related scenarios). For the situational judgment items, correct and incorrect response options were developed using established theories from the emotion and organizational field. Five studies (total N = 888) showed that all subtests had high measurement precision (as assessed with Item Response Theory), and correlated in expected ways with other EI tests, cognitive intelligence, personality, and demographic variables. Further, the GECe predicted performance in computerized assessment center tasks in a sample of professionals, and explained academic performance in students incrementally above another ability EI test. Because of its theory-based scoring, good psychometric properties, and focus on the workplace, the GECe represents a promising tool for studying the role of four major EI components in organizational outcomes. [See too discussion at <https://medicalxpress.com/news/2018-11-emotional-intelligence-criterion-hiring.html>].

Schmidt, F. T. C., G. Nagy, et al. (2018). **"Same same, but different? Relations between facets of conscientiousness and grit."** *European Journal of Personality* 0(0). <https://onlinelibrary.wiley.com/doi/abs/10.1002/per.2171>

(Available in free full text) Abstract The constructs grit and conscientiousness are closely connected. However, this relationship has not been analysed while accounting for the complex structure of conscientiousness and the multifaceted conception of grit (perseverance of effort; consistency of interest). In this study, we analysed the connection while considering the hierarchical structure of conscientiousness, differentiating between a superordinate factor, a first-level common factor (industriousness), and lower level unique factors. Drawing on two samples (N = 413, Mage = 15.29, and N = 530, Mage = 31.75), we applied an extension procedure for confirmatory factor analysis that enables a simultaneous investigation of the relationships on all levels. The perseverance facet of grit was tightly aligned to the common factors (95% shared variance) and was strongly related to the industriousness factor. Consistency shared less variance with the common factors of conscientiousness (53%), but it was additionally correlated with the self-discipline facet. The results for the global grit scale were most similar to the results for perseverance. Grit appears to be a construct that combines the superordinate and industrious aspects of conscientiousness and shares the unique aspect of the self-discipline facet; this suggests that grit and its facets can be fully integrated into the hierarchical structure of conscientiousness.

Stephan, Y., A. R. Sutin, et al. (2019). **"Facets of conscientiousness and longevity: Findings from the health and retirement study."** *Journal of Psychosomatic Research* 116: 1-5.

<http://www.sciencedirect.com/science/article/pii/S002239991830864X>

(Available in free full text) Objectives Conscientiousness is the strongest personality predictor of longevity. The present study examined which facets of conscientiousness are the most strongly related to mortality risk in a large longitudinal sample of middle-aged and older adults. Method Seven-year mortality data were obtained from participants (total N > 11,000) from the Health and Retirement Study (HRS, 2008–2014). Six facets of conscientiousness, demographic factors, disease burden, smoking and physical inactivity were assessed at baseline. Results Controlling for demographic factors, every standard deviation higher order, traditionalism, virtue, and responsibility was related to an approximately 10% reduced risk of mortality; industriousness was associated with an almost 25% lower likelihood of mortality. Except for traditionalism, these associations were partially accounted by health and behavioral covariates. Self-control was not related to longevity. When all facets and the covariates were simultaneously included, only industriousness was significantly associated with mortality. Conclusions The present study provides new evidence about the specific facets of conscientiousness that are related to longevity.

Velten, J., A. Bieda, et al. (2018). **"Lifestyle choices and mental health: A longitudinal survey with german and chinese students."** *BMC Public Health* 18(1): 632. <https://doi.org/10.1186/s12889-018-5526-2>

(Available in free full text) Background A healthy lifestyle can be beneficial for one's mental health. Thus, identifying healthy lifestyle choices that promote psychological well-being and reduce mental problems is useful to prevent mental disorders. The aim of this longitudinal study was to evaluate the predictive values of a broad range of lifestyle choices for positive mental health (PMH) and mental health problems (MHP) in German and Chinese students. Method Data were assessed at baseline and at 1-year follow-up. Samples included 2991 German (Mage = 21.69, SD = 4.07) and 12,405 Chinese (Mage = 20.59, SD = 1.58) university students. Lifestyle choices were body mass index, frequency of physical and mental activities, frequency of alcohol consumption, smoking, vegetarian diet, and social rhythm irregularity. PMH and MHP were measured with the Positive Mental Health Scale and a 21-item version of the Depression Anxiety and Stress Scale. The predictive values of lifestyle choices for PMH and MHP at baseline and follow-up were assessed with single-group and multi-group path analyses. Results Better mental health (higher PMH and fewer MHP) at baseline was predicted by a lower body mass index, a higher frequency of physical and mental activities, non-smoking, a non-vegetarian diet, and a more regular social rhythm. When controlling for baseline mental health, age, and gender, physical activity was a positive predictor of PMH, smoking was a positive predictor of MHP, and a more irregular social rhythm was a positive predictor of PMH and a negative predictor of MHP at follow-up. The good fit of a multi-group model indicated that most lifestyle choices predict mental health comparably across samples. Some country-specific effects emerged: frequency of alcohol consumption, for example, predicted better mental health in German and poorer mental health in Chinese students. Conclusions Our findings underline the importance of healthy lifestyle choices for improved psychological well-being and fewer mental health difficulties. Effects of lifestyle on mental health are comparable in German and Chinese students. Some healthy lifestyle choices (i.e., more frequent physical activity, non-smoking, regular social rhythm) are related to improvements in mental health over a 1-year period.

Watkins, P. C., R. A. Emmons, et al. (2018). **"Joy is a distinct positive emotion: Assessment of joy and relationship to gratitude and well-being."** *The Journal of Positive Psychology* 13(5): 522-539.

<https://doi.org/10.1080/17439760.2017.1414298>

In three studies we investigated joy and its relationship to subjective well-being (SWB). We developed measures of joy based on recent conceptualizations of joy in the humanities and social sciences. In Studies 1 and 2 we developed reliable measures of state and trait joy. In Study 3 we used a two-month prospective design to investigate the relationship of joy to gratitude and SWB. We found that dispositional gratitude predicted increases in state joy over time. We also found that trait joy predicted increases in state gratitude, providing evidence for an intriguing upward spiral between joy and gratitude. Finally, we found that trait joy was associated with increases in SWB over time. Factor analyses indicated that joy loaded separately from other positive emotions. We conclude that joy is a discrete positive emotion, it can be measured reliably with self-report instruments, and that it may be an important component of well-being.

Yu, S. and C. Levesque-Bristol (2018). **"Are students in some college majors more self-determined in their studies than others?"** *Motivation and Emotion* 42(6): 831-851. <https://doi.org/10.1007/s11031-018-9711-5>

Self-determination theory proposes that the extent to which students' motivation is self-determined is critical to learning outcomes. Based on occasional research evidence and our perceptions, we hypothesize that college students in certain majors have profiles that are higher in self-determined motivation than students in other majors. Specifically, our primary hypothesis is that students in the social sciences and humanities tend to be more self-determined, whereas students in business-related majors tend to be less self-determined. The results from two studies using large samples and advanced analytical methods support the primary hypotheses. Comparison results were also obtained for other majors (e.g., engineering and natural sciences), and supplemental analyses supported the critical role of self-determined motivation in learning outcomes among students in all majors. Study 2 also found support for two mechanisms for such differences, i.e., the majors' learning climates and students' individual differences in autonomous functioning. The current evidence suggests the importance of promoting more humanistic learning environments in certain academic disciplines.