

42 positive psychology relevant abstracts

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(Hallford and Mellor 2015; Lamy, Fischer-Lokou et al. 2015; Algoe and Zhaoyang 2016; Ardelt and Edwards 2016; Barnett and Deutsch 2016; Buck 2016; Carhart-Harris, Kaelen et al. 2016; Chapman and Guven 2016; Chen, Mark et al. 2016; Credé, Tynan et al. 2016; Donaldson, de Roos et al. 2016; Gravel, Pelletier et al. 2016; Harzer 2016; Haworth, Nelson et al. 2016; Hope, Milyavskaya et al. 2016; Hsee and Ruan 2016; Kanat-Maymon, Antebi et al. 2016; Lamy, Gueguen et al. 2016; Larsson, Åkesson et al. 2016; Lavy and Littman-Ovadia 2016; Lefevor and Fowers 2016; Linley, Dovey et al. 2016; Littman-Ovadia and Lavy 2016; Luhmann, Necka et al. 2016; Luong, Wrzus et al. 2016; Matz, Gladstone et al. 2016; Mensah, Andres et al. 2016; Mischkowski, Crocker et al. 2016; Mongrain, Komeylian et al. 2016; Nelson, Layous et al. 2016; Nummenmaa, Tuominen et al. 2016; Oettingen, Mayer et al. 2016; Ruberton, Gladstone et al. 2016; Sirigatti, Penzo et al. 2016; Stoeber and Corr 2016; Sulemana 2016; Sutton, Evans et al. 2016; Toback, Graham-Bermann et al. 2016; Trompetter, de Kleine et al. 2016; Van Cappellen, Toth-Gauthier et al. 2016; van Woerkom, Bakker et al. 2016; Weinstein, Launay et al. 2016)

Algoe, S. B. and R. Zhaoyang (2016). "**Positive psychology in context: Effects of expressing gratitude in ongoing relationships depend on perceptions of enactor responsiveness.**" *The Journal of Positive Psychology* 11(4): 399-415. <http://dx.doi.org/10.1080/17439760.2015.1117131>

Recent correlational evidence implicates gratitude in personal and relational growth, for both members of ongoing relationships. From these observations, it would be tempting to prescribe interpersonal gratitude exercises to improve relationships. In this experiment, couples were randomly assigned to express gratitude over a month, or to a relationally active control condition. Results showed modest effects of condition on personal and relational well-being. However, those whose partners were perceived as being particularly responsive when expressing gratitude at the initial lab session showed greater well-being across a range of outcomes, whereas this was not so for people in the control condition. Notably, evidence raises concerns about the effectiveness of artificial injections of gratitude when the partner is perceived to be low in responsiveness. Given the importance of close relationships, this work highlights the need for more theory-driven basic research tested in context before assuming what appears to work naturally will also work artificially.

Ardelt, M. and C. A. Edwards (2016). "**Wisdom at the end of life: An analysis of mediating and moderating relations between wisdom and subjective well-being.**" *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 71(3): 502-513. <http://psychsocgerontology.oxfordjournals.org/content/71/3/502.abstract>

Objectives: Several studies have shown that wisdom, measured as an integration of cognitive, reflective, and compassionate dimensions, is positively related to subjective well-being in old age. This study investigated whether wisdom might be particularly beneficial for people at the end of life, when extrinsic means to increase well-being largely disappear, and whether the association between wisdom and well-being is mediated by mastery and purpose in life. Methods: Samples of 156 older community residents ($M = 71$ years) and 41 older hospice patients and nursing home residents ($M = 77$ years) were analyzed, using a moderated and mediated path model. Results: (a) Wisdom was positively related to subjective well-being in the later years, even after controlling for physical health, socioeconomic status, financial situation, social involvement, age, gender, race, and marital status. (b) The association between wisdom and well-being was significantly stronger in the nursing home and hospice sample than the community sample. (c) The relation between wisdom and well-being was partially mediated by purpose in life, both directly and via a sense of mastery. Conclusion: Aging well at the end of life might depend to a larger extent on psychosocial growth across the life course than on present circumstances.

Barnett, M. D. and J. T. Deutsch (2016). "**Humanism, authenticity, and humor: Being, being real, and being funny.**" *Personality and Individual Differences* 91: 107-112. <http://www.sciencedirect.com/science/article/pii/S0191886915300854>

Authenticity is an important construct in humanistic psychology; it consists of discrepancies between the true self, the noticed self, and the expressed self. Humor may be conceptualized as having two axes: benign or disparaging, and improving the self or improving relationships with others. The purpose of this study was to investigate the relationship between facets of authenticity and humor styles among a large sample of U.S. college students ($N = 813$). It was found that lower incongruences between the three stages of authentic experience (i.e., higher authenticity) were associated with benign humor styles. Larger discrepancies in the self as well as the impact of external influences were associated with disparaging humor styles. These results suggest that there is a relationship between individuals' experience of the self and their style of humor.

Buck, D. (2016). **Gardens and health: Implications for policy and practice**, Kings Fund.

(Available in free full text) The National Gardens Scheme commissioned The King's Fund to write an independent report on the benefits of gardens and gardening on health.

The report has three aims: 1.) to collate and summarise the evidence on the impact of gardens on wellbeing across the life-course, from childhood through family life and into older age. 2.) to demonstrate the important place gardening interventions have in the wider health and care system with a focus on four specific areas: social prescribing; community gardens; dementia care; end-of-life care. 3.) to make the case for the further integration of gardens and health into mainstream health policy and practice. The report includes a 'menu' of recommendations that aims to encourage the NHS, government departments, national bodies, local government, health and wellbeing boards and clinical commissioning groups to make more of the diverse health benefits of gardening in support of their priorities.

Carhart-Harris, R. L., M. Kaelen, et al. (2016). "**The paradoxical psychological effects of lysergic acid diethylamide (LSD).**" *Psychological Medicine* 46(07): 1379-1390. <http://dx.doi.org/10.1017/S0033291715002901>

Background Lysergic acid diethylamide (LSD) is a potent serotonergic hallucinogen or psychedelic that modulates consciousness in a marked and novel way. This study sought to examine the acute and mid-term psychological effects of LSD in a controlled study. Method A total of 20 healthy volunteers participated in this within-subjects study. Participants received LSD (75 µg, intravenously) on one occasion and placebo (saline, intravenously) on another, in a balanced order, with at least 2 weeks separating sessions. Acute subjective effects were measured using the Altered States of Consciousness questionnaire and the Psychotomimetic States Inventory (PSI). A measure of optimism (the Revised Life Orientation Test), the Revised NEO Personality Inventory, and the Peter's Delusions Inventory were issued at baseline and 2 weeks after each session. Results LSD produced robust psychological effects; including heightened mood but also high scores on the PSI, an index of psychosis-like symptoms. Increased optimism and trait openness were observed 2 weeks after LSD (and not placebo) and there were no changes in delusional thinking. Conclusions The present findings reinforce the view that psychedelics elicit psychosis-like symptoms acutely yet improve psychological wellbeing in the mid to long term. It is proposed that acute alterations in mood are

secondary to a more fundamental modulation in the quality of cognition, and that increased cognitive flexibility subsequent to serotonin 2A receptor (5-HT2AR) stimulation promotes emotional lability during intoxication and leaves a residue of 'loosened cognition' in the mid to long term that is conducive to improved psychological wellbeing.

Chapman, B. and C. Guven (2016). "**Revisiting the relationship between marriage and wellbeing: Does marriage quality matter?**" *Journal of Happiness Studies* 17(2): 533-551. <http://dx.doi.org/10.1007/s10902-014-9607-3>

This paper revisits the marriage and wellbeing relationship using variables reflecting marriage quality and data from the US, the UK and Germany. People in self-assessed poor marriages are fairly miserable and much less happy than unmarried people, even in the first year of marriages. However, people in self-assessed good marriages are even happier than the literature suggests. Women show greater range of responses to marriage quality than men. The effect of employment status and subjective health on happiness and the marriage effects on interpersonal trust and mental health change dramatically when marriage quality is controlled for. A strong link from happiness to marriage does not exist. However, happier people are more likely to stay single instead of being unhappily married, but less likely to stay single compared to being very happily married and happiness cannot predict staying single versus being pretty happily married.

Chen, Y., G. Mark, et al. (2016). "**Promoting positive affect through smartphone photography.**" *Psychology of Well-Being* 6(1): 1-16. <http://dx.doi.org/10.1186/s13612-016-0044-4>

(Available in free full text) Background With the increasing quality of smartphone cameras, taking photos has become ubiquitous. This paper investigates how smartphone photography can be leveraged to help individuals increase their positive affect. Methods Applying findings from positive psychology, we designed and conducted a 4-week study with 41 participants. Participants were instructed to take one photo every day in one of the following three conditions: a selfie photo with a smiling expression, a photo of something that would make oneself happy and a photo of something that would make another person happy. Findings After 3 weeks, participants' positive affect in all conditions increased. Those who took photos to make others happy became much less aroused. Qualitative results showed that those in the selfie group observed changes in their smile over time; the group taking photos to improve their own affect became more reflective and those taking photos for others found that connecting with family members and friends helped to relieve stress. Conclusions The findings can offer insights for designers to create systems that enhance emotional well-being.

Credé, M., M. C. Tynan, et al. (2016). "**Much ado about grit: A meta-analytic synthesis of the grit literature.**" *Journal of Personality and Social Psychology*

Grit has been presented as a higher order personality trait that is highly predictive of both success and performance and distinct from other traits such as conscientiousness. This paper provides a meta-analytic review of the grit literature with a particular focus on the structure of grit and the relation between grit and performance, retention, conscientiousness, cognitive ability, and demographic variables. Our results based on 584 effect sizes from 88 independent samples representing 66,807 individuals indicate that the higher order structure of grit is not confirmed, that grit is only moderately correlated with performance and retention, and that grit is very strongly correlated with conscientiousness. We also find that the perseverance of effort facet has significantly stronger criterion validities than the consistency of interest facet and that perseverance of effort explains variance in academic performance even after controlling for conscientiousness. In aggregate our results suggest that interventions designed to enhance grit may only have weak effects on performance and success, that the construct validity of grit is in question, and that the primary utility of the grit construct may lie in the perseverance facet.

Donaldson, A. I., B. de Roos, et al. (2016). "**Is life longer with a box of chocolates?**" *Heart*. <http://heart.bmjjournals.org/content/early/2016/04/11/heartjnl-2016-309468.short>

Coronary heart disease is the leading cause of death worldwide and accounts for almost 70 000 deaths annually in the UK alone. The modifiable lifestyle risk factors contributing to coronary heart disease have been extensively researched and they include poor dietary choices, physical inactivity and smoking. In contrast to the often recommended heart healthy diet, it has perhaps been both a surprise and a delight to many that recent research has suggested that chocolate in both its milky and dark disguises may have a protective effect against coronary artery disease. Cocoa has the richest flavanol content of all foods on a per-weight basis including high levels of epicatechin. The health benefits of eating chocolate have increasingly been attributed to their flavan-3-ol content, found in the highest concentration in dark chocolate. Indeed, flavanol-rich cocoa is thought to activate nitric oxide synthesis which could explain findings of beneficial effects of chocolate on endothelial cell function and blood pressure control. Chocolate consumption has also been associated with improved platelet function, reduced insulin resistance and a healthier serum lipid profile. This may be attributed to the high levels of oleic acid found in dark chocolate—a monounsaturated fat known to have a positive effect on blood lipids. The most recent Swedish study found an inverse association between chocolate consumption and myocardial infarction risk with those eating ≥3–4 servings/week of chocolate having a 13% relative risk reduction (HR 0.87 (95% CI 0.77 to 0.98, p=0.04)) compared with non-consumers. The authors acknowledge that chocolate consumption was only assessed by a single question in a baseline food frequency questionnaire with no distinction made between types or quantity. This is particularly important bearing in mind the possible dose-dependent relationship ...

Gravel, E. E., L. G. Pelletier, et al. (2016). "**""Doing it" for the right reasons: Validation of a measurement of intrinsic motivation, extrinsic motivation, and amotivation for sexual relationships.**" *Personality and Individual Differences* 92: 164-173. <http://www.sciencedirect.com/science/article/pii/S0191886915300969>

This investigation examined the psychometric properties of the Sexual Motivation Scale (SexMS), a scale measuring the different types of self-regulation proposed by SDT in the context of sexual relationships: Intrinsic motivation, extrinsic motivation, and amotivation. We analyzed the construct validity of the SexMS in two studies (Study 1: N = 1070, Study 2: N = 575). Results from a confirmatory factor analysis indicated that the SexMS can adequately reproduce the correlated six-factor structure posited by SDT. Findings from measurement invariance analyses as a function of gender and relationship type (i.e., casual and committed), tests for internal consistency, and correlational analyses all provided support for the reliability and the validity of the SexMS. Importantly, self-determined sexual regulation was associated to positive sexual health and well-being outcomes, whereas the inverse was found for non-self-determined sexual regulation. Additionally, participants who scored within the problematic range of sexual function showed a greater endorsement of non-self-determined sexual regulation and a lower endorsement of self-determined sexual regulation than those who scored in the non-problematic range. Overall, the SexMS provides a valuable tool to investigate sexuality within a SDT framework and a fine-grained measurement for the examination of the motivational processes associated with sexual health and well-being.

Hallford, D. J. and D. Mellor (2015). "**Brief reminiscence activities improve state well-being and self-concept in young adults: A randomised controlled experiment.**" *Memory*: 1-10. <http://www.ncbi.nlm.nih.gov/pubmed/26522498>

Reminiscence-based psychotherapies have been demonstrated to have robust effects on a range of therapeutic outcomes. However, little research has been conducted on the immediate effects of guided activities they are composed of, or how these might differ dependent on the type of reminiscence. The current study utilised a controlled experimental design, whereby 321 young adults (mean age = 25.5 years, SD = 3.0) were randomised to one of four conditions of online reminiscence activity: problem-solving (successful coping experiences), identity (self-defining events contributing to a meaningful and continuous personal identity), bitterness revival (negative or adverse events), or a control condition (any memory from their past). Participants recalled autobiographical memories congruent with the condition, and answered questions to facilitate reflection on the memories. The results indicated that problem-solving and identity reminiscence activities caused significant improvements in self-esteem, meaning in life, self-efficacy and affect, whereas no effects were found in the bitterness revival and control conditions. Problem-solving reminiscence also caused a small effect in increasing perceptions of a life narrative/s. Differences between the conditions did not appear to be explained by the positive-valence of memories. These results provide evidence for the specific effects of adaptive types of problem-solving and identity reminiscence in young adults.

Harzer, C. (2016). *The eudaimonics of human strengths: The relations between character strengths and well-being*. Handbook of eudaimonic wellbeing. J. Vittersø. Berlin, Germany, Springer.

The present chapter was aimed at presenting an overview of the findings on the relations between character strengths and well-being. In order to get a broader picture about these relations, not just eudaimonic well-being but also hedonic well-being was considered. Within the scope of the chapter at hand, focus was on subjective well-being as indicator of hedonic well-being as well as on psychological well-being as indicator of eudaimonic well-being. Following the definitions of these constructs, research findings on the correlations between character strengths and well-being (i.e., subjective well-being: positive affect, negative affect, and global life satisfaction; psychological well-being: environmental mastery, personal growth, purpose in life, autonomy, self-acceptance, and positive relationships) are presented. None of the character strengths systematically showed a correlation coefficient that indicated a detrimental relation between a strength and (indicators of) subjective and psychological well-being. On the contrary and as expected, character strengths seem to be important individual factors facilitating well-being. Across all indicators of well-being (i.e., subjective well-being and psychological well-being) zest, hope, and curiosity were the most substantial correlates among the character strengths. Moreover, in addition to zest, hope, and curiosity, further character strengths were relevant for specific indicators of subjective well-being and psychological well-being as well. In-depth interpretations of the most important relations are presented and discussed. Finally, concluding remarks and open questions are presented, and future directions for research are discussed.

Haworth, C. M., S. K. Nelson, et al. (2016). "Stability and change in genetic and environmental influences on well-being in response to an intervention." *PLoS One* 11(5): e0155538.

<http://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0155538>

(Available in free full text) Genetic and environmental influences on complex traits can change in response to developmental and environmental contexts. Here we explore the impact of a positive activity intervention on the genetic and environmental influences on well-being and mental health in a sample of 750 adolescent twins. Twins completed a 10-week online well-being intervention, consisting of kindness and gratitude tasks and matched control activities. The results showed significant improvements both in well-being and in internalizing symptoms in response to the intervention activities. We used multivariate twin analyses of repeated measures, tracking stability and change in genetic and environmental influences, to assess the impact of this environmental intervention on these variance components. The heritability of well-being remained high both before and after the intervention, and the same genetic effects were important at each stage, even as well-being increased. The overall magnitude of environmental influences was also stable across the intervention; however, different non-shared environmental influences emerged during the intervention. Our study highlights the value of exploring the innovations in non-shared environmental influences that could provide clues to the mechanisms behind improvements in well-being. The findings also emphasize that even traits strongly influenced by genetics, like well-being, are subject to change in response to environmental interventions.

Hope, N. H., M. Milyavskaya, et al. (2016). "The humble path to progress: Goal-specific aspirational content predicts goal progress and goal vitality." *Personality and Individual Differences* 90: 99-107.

<http://www.sciencedirect.com/science/article/pii/S0191886915300040>

While previous research has demonstrated that striving for personal goals connected to intrinsic aspirations benefits psychological well-being, the relation between aspirational content and goal progress has remained unexamined. Using a multilevel modeling (MLM) approach in two longitudinal studies, we examined the relationship between life aspirations at the level of the person and the level of the goal, differentiating the ability of aspirations at both levels to predict later goal progress. We found that students made significantly more progress on (and were more likely to attain) their goals that were more intrinsic in aspirational content. These effects were goal-specific rather than person-driven. Study 2 replicated the findings of study 1 and also revealed an interaction between intrinsic aspirational content and progress in predicting goal-related affect. Specifically, we found that making progress on a goal that was more intrinsic in content led to greater feelings of vitality for that goal, while making progress on a less intrinsic goal did not. These findings highlight the benefits of setting goals connected to intrinsic aspirations (even for generally extrinsically-oriented individuals) and the value of shifting towards MLM approaches for research on goal pursuit.

Hsee, C. K. and B. Ruan (2016). "The pandora effect: The power and peril of curiosity." *Psychological Science* 27(5): 659-666. <http://pss.sagepub.com/content/27/5/659.abstract>

Curiosity—the desire for information—underlies many human activities, from reading celebrity gossip to developing nuclear science. Curiosity is well recognized as a human blessing. Is it also a human curse? Tales about such things as Pandora's box suggest that it is, but scientific evidence is lacking. In four controlled experiments, we demonstrated that curiosity could lead humans to expose themselves to aversive stimuli (even electric shocks) for no apparent benefits. The research suggests that humans possess an inherent desire, independent of consequentialist considerations, to resolve uncertainty; when facing something uncertain and feeling curious, they will act to resolve the uncertainty even if they expect negative consequences. This research reveals the potential perverse side of curiosity, and is particularly relevant to the current epoch, the epoch of information, and to the scientific community, a community with high curiosity.

Kanat-Maymon, Y., A. Antebi, et al. (2016). "Basic psychological need fulfillment in human-pet relationships and well-being." *Personality and Individual Differences* 92: 69-73.

<http://www.sciencedirect.com/science/article/pii/S0191886915301070>

According to self-determination theory (SDT; Deci & Ryan, 2000), fulfillment of the basic psychological needs for autonomy, competence, and relatedness within close relationships are essential for well-being. In the current research, we sought to further explore this association as regards human-pet relationships. Drawing on recent studies that have documented

the benefits pet owners can derive from their relationship with a pet, we examined the extent to which perceived need support by a pet can facilitate well-being and allay psychological distress. Participants were 206 pet owners (dog or cat). Results of a SEM analysis indicated that perceived needs support by a pet significantly predicted higher well-being but did not predict level of psychological distress. These associations were found over and beyond needs support by a close human other. The implications of the uniqueness of human-pet relationships to well-being through the lens of SDT are discussed.

Lamy, L., J. Fischer-Lokou, et al. (2015). **"Places for help: Micro-level variation in helping behavior toward a stranger."** *Psychol Rep* 116(1): 242-248. <http://www.ncbi.nlm.nih.gov/pubmed/25621671>

A field experiment was conducted to explore whether certain urban places have an influence on helpfulness. Places semantically associated with the idea of love may act as primes and trigger increased helpfulness. Passersby (96 men, 96 women) happened upon a female confederate with a "leg injury" who inadvertently dropped personal items. The experiment took place in a common street or near a hospital entrance, a Catholic church, or a flower shop. Results indicated that helpfulness increased near a hospital or flower shop. These results are explained in light of automatic activation of normative behavior.

Lamy, L., N. Gueguen, et al. (2016). **"'"Wrong place to get help": A field experiment on luxury stores and helping behavior."** *Social Influence* 11(2): 130-139. <http://www.tandfonline.com/doi/full/10.1080/15534510.2016.1160839>

(Available in free full text) Three experiments were conducted in field settings. It was hypothesized that luxury stores may act as environmental reminders of materialism and that helpfulness would vary according to the presence or absence of such cues. Study 1 (N = 80) indicated that consumers coming out of famous brand stores displayed less helpfulness, as compared to mere passersby. Study 2 (N = 112) showed passersby were less helpful near a luxury brand store than in an ordinary street with no shops. In Study 3 (N = 360), passersby were less helpful when walking down a street lined with highly exclusive stores, as compared to streets with ordinary stores or no stores. Results, limitations, and directions for future research are discussed. [Note: contrast this paper with this group's 2015 study showing increased helping behavior near hospitals or flower shops - but not churches].

Larsson, S. C., A. Åkesson, et al. (2016). **"Chocolate consumption and risk of myocardial infarction: A prospective study and meta-analysis."** *Heart*. <http://heart.bmjjournals.org/content/early/2016/03/02/heartjnl-2015-309203.abstract>

Objective To examine whether chocolate consumption is associated with a reduced risk of ischaemic heart disease, we used data from a prospective study of Swedish adults and we performed a meta-analysis of available prospective data. Methods and results The Swedish prospective study included 67 640 women and men from the Cohort of Swedish Men and the Swedish Mammography Cohort who had completed a food-frequency questionnaire and were free of cardiovascular disease at baseline. Myocardial infarction (MI) cases were ascertained through linkage with the Swedish National Patient and Cause of Death Registers. PubMed and EMBASE databases were searched from inception until 4 February 2016 to identify prospective studies on chocolate consumption and risk of ischaemic heart disease. Results The results from eligible studies were combined using a random-effects model. During follow-up (1998–2010), 4417 MI cases were ascertained in the Swedish study. Chocolate consumption was inversely associated with MI risk. Compared with non-consumers, the multivariable relative risk for those who consumed ≥3–4 servings/week of chocolate was 0.87 (95% CI 0.77 to 0.98; p for trend =0.04). Five prospective studies on chocolate consumption and ischaemic heart disease were identified. Together with the Swedish study, the meta-analysis included six studies with a total of 6851 ischaemic heart disease cases. The overall relative risk for the highest versus lowest category of chocolate consumption was 0.90 (95% CI 0.82 to 0.97), with little heterogeneity among studies ($I^2=24.3\%$). Conclusions Chocolate consumption is associated with lower risk of MI and ischaemic heart disease.

Lavy, S. and H. Littman-Ovadia (2016). **"My better self: Using strengths at work and work productivity, organizational citizenship behavior, and satisfaction."** *Journal of Career Development*. <http://jcd.sagepub.com/content/early/2016/02/24/0894845316634056.abstract>

Character strengths are hypothesized to contribute to human thriving. However, the effects of their use on individuals' behaviors and attitudes at work, an important domain of modern life, have rarely been studied. In the present study, we examined associations of employees' use of character strengths at work with productivity, organizational citizenship behavior (OCB), and job satisfaction. Based on the broaden-and-build theory of positive emotions, we suggested a multiple mediation model demonstrating how these associations are mediated by positive affect and engagement. Participants (N = 1,095) completed measures of strengths use, work productivity, OCB, job satisfaction, positive affect, and work engagement. As hypothesized, using strengths at work was associated with productivity, OCB, and job satisfaction, and these associations were mediated by higher positive emotions and engagement. The findings highlight the potential benefits of encouraging employees to use their strengths and point to positive affect and work engagement as mediating these effects.

Lefevor, G. T. and B. J. Fowers (2016). **"Traits, situational factors, and their interactions as explanations of helping behavior."** *Personality and Individual Differences* 92: 159-163. <http://www.sciencedirect.com/science/article/pii/S0191886915301239>

This study is guided by the research question, are personality traits, character traits, situational factors, and their interaction all necessary to explain helping behavior? 121 undergraduates' scores on the Agreeableness scale of the Big Five Inventory and the Kindness scale of the Values in Action Inventory were examined in conjunction with experimentally induced positive, neutral, or negative mood via false feedback on a bogus intelligence test. The number of spilled pencils participants helped retrieve in a "mishap" was the measure of helping. Kindness significantly predicted helping behavior, but neither feedback condition nor Agreeableness was significantly related to helping. Interactions between Kindness, Agreeableness, and feedback conditions were non-significant. These results highlight a stronger contribution to helping behavior from the trait of Kindness than from the trait of Agreeableness and situational factors.

Linley, P. A., H. Dovey, et al. (2016). **"Examining the intensity and frequency of experience of discrete positive emotions."** *Journal of Happiness Studies* 17(2): 875-892. <http://dx.doi.org/10.1007/s10902-015-9619-7>

Research into positive emotions has grown significantly over the last decade. This has focused typically on aggregate positive emotions, despite increasing evidence for differential outcomes from discrete positive emotions. We examined the intensity and frequency of experience of 50 discrete positive emotions in a sample of 500 participants. Results showed that the most frequently experienced positive emotions were Interested, Curious, Friendly, Amused and Positive. The most intensely experienced positive emotions were Happy, Optimistic, Friendly, Interested and Determined. Women scored higher than men on the frequency of experience of 12 positive emotions; men scored higher for Ecstatic only. Women scored higher than men on the intensity of experience of 6 positive emotions, whereas men scored higher on the intensity of experience of three positive emotions. Analyses with age showed findings broadly consistent with the U-curve of life satisfaction across the life span. The discussion focuses on how these data can inform and support future positive emotions research, and the importance of considering discrete positive emotions.

Littman-Ovadia, H. and S. Lavy (2016). "**Going the extra mile: Perseverance as a key character strength at work.**" *Journal of Career Assessment* 24(2): 240-252. <http://jca.sagepub.com/content/24/2/240.abstract>

Character strengths are durable positive attributes that contribute to well-being in life and at work. They are also hypothesized to contribute to the growth and flourishing of individuals and organizations. However, their associations with work performance and counterproductive work behaviors have rarely been studied. The present study seeks to identify character strengths most highly associated with work performance and counterproductive work behaviors and explores the role of individuals' sense of meaning at work and work orientation in mediating these associations. An international sample (N = 686) completed the measures of strengths endorsement, work performance, counterproductive work behaviors, sense of meaning at work, and work orientation. Results pointed to perseverance as most highly associated with work performance and most negatively associated with counterproductive work behaviors. These associations were mediated by working individuals' sense of meaning at work and perceptions of work as a career and as a calling. These findings highlight the contribution of perseverance to work performance and counterproductive behaviors, beyond the role of other character strengths, and highlight work meaningfulness and work orientation as psychological mechanisms underlying its effects.

Luhmann, M., E. A. Necka, et al. (2016). "**Is valuing happiness associated with lower well-being? A factor-level analysis using the valuing happiness scale.**" *Journal of Research in Personality* 60: 46-50. <http://www.sciencedirect.com/science/article/pii/S0092656615300258>

(Available in free full text) Recent studies suggest that valuing happiness is negatively associated with well-being. Most of these studies used the Valuing Happiness Scale (Mauss, Tamir, Anderson, & Savino, 2011). In the present paper, we examined the factor structure of this scale using data pooled from six independent samples (Ntotal = 938). Exploratory and confirmatory factor analysis showed that the Valuing Happiness Scale is not unidimensional and that only one of its three factors correlates negatively with various indicators of well-being, whereas non-significant or positive correlations were found for the other factors. These findings indicate that valuing happiness may not necessarily be bad for one's well-being, and call for a better definition, theoretical foundation, and operationalization of this construct.

Luong, G., C. Wrzus, et al. (2016). "**When bad moods may not be so bad: Valuing negative affect is associated with weakened affect-health links.**" *Emotion* 16(3): 387-401. <http://www.ncbi.nlm.nih.gov/pubmed/26571077>

Bad moods are considered "bad" not only because they may be aversive experiences in and of themselves, but also because they are associated with poorer psychosocial functioning and health. We propose that people differ in their negative affect valuation (NAV; the extent to which negative affective states are valued as pleasant, useful/helpful, appropriate, and meaningful experiences) and that affect-health links are moderated by NAV. These predictions were tested in a life span sample of 365 participants ranging from 14-88 years of age using reports of momentary negative affect and physical well-being (via experience sampling) and assessments of NAV and psychosocial and physical functioning (via computer-assisted personal interviews and behavioral measures of hand grip strength). Our study demonstrated that the more individuals valued negative affect, the less pronounced (and sometimes even nonexistent) were the associations between everyday experiences of negative affect and a variety of indicators of poorer psychosocial functioning (i.e., emotional health problems, social integration) and physical health (i.e., number of health conditions, health complaints, hand grip strength, momentary physical well-being). Exploratory analyses revealed that valuing positive affect was not associated with the analogous moderating effects as NAV. These findings suggest that it may be particularly important to consider NAV in models of affect-health links.

Matz, S. C., J. J. Gladstone, et al. (2016). "**Money buys happiness when spending fits our personality.**" *Psychological Science* 27(5): 715-725. <http://pss.sagepub.com/content/27/5/715.abstract>

In contrast to decades of research reporting surprisingly weak relationships between consumption and happiness, recent findings suggest that money can indeed increase happiness if it is spent the "right way" (e.g., on experiences or on other people). Drawing on the concept of psychological fit, we extend this research by arguing that individual differences play a central role in determining the "right" type of spending to increase well-being. In a field study using more than 76,000 bank-transaction records, we found that individuals spend more on products that match their personality, and that people whose purchases better match their personality report higher levels of life satisfaction. This effect of psychological fit on happiness was stronger than the effect of individuals' total income or the effect of their total spending. A follow-up study showed a causal effect: Personality-matched spending increased positive affect. In summary, when spending matches the buyer's personality, it appears that money can indeed buy happiness.

Mensah, C. A., L. Andres, et al. (2016). "**Enhancing quality of life through the lens of green spaces: A systematic review approach.**" *International Journal Of Wellbeing* 6(1): 142-163

(Available in free full text) Improving citizens' quality of life is a stated priority of many governments in both the global north and south. However, efforts to achieve this often focus on socio-economic measures, with limited attention to the contributions of environmental variables such as green spaces. This paper sought to bridge this knowledge gap by tracing the linkages between green spaces and quality of life, and how these connections can inform policy development in order to assist governments to achieve positive outcomes for quality of life. The paper took a theoretical approach by utilising the systematic review method. In all, 452 publications were included in this review, and rigorous content analysis was employed to retrieve relevant data. Green spaces were found to provide various social, economic, and environmental benefits, which in turn improve physical, psychological, emotional, social, and material wellbeing of individuals and thus enhance quality of life. It is therefore strongly recommended that conservation of green spaces should be integrated into national health, environmental and socio-economic policies in order to promote effective utilisation of green spaces to enhance citizens' overall quality of life.

Mischkowski, D., J. Crocker, et al. (2016). "**From painkiller to empathy killer: Acetaminophen (paracetamol) reduces empathy for pain.**" *Soc Cogn Affect Neurosci*. <http://www.ncbi.nlm.nih.gov/pubmed/27217114>

Simulation theories of empathy hypothesize that empathizing with others' pain shares some common psychological computations with the processing of one's own pain. Support for this perspective has largely relied on functional neuroimaging evidence of an overlap between activations during the experience of physical pain and empathy for other people's pain. Here, we extend the functional overlap perspective to the neurochemical level and test whether a common physical painkiller, acetaminophen (paracetamol), can reduce empathy for another's pain. In two double-blind placebo-controlled experiments, participants rated perceived pain, personal distress and empathic concern in response to reading scenarios about another's physical or social pain, witnessing ostracism in the lab, or visualizing another study participant receiving painful noise blasts. As hypothesized, acetaminophen reduced empathy in response to others' pain. Acetaminophen also reduced the unpleasantness of noise blasts delivered to the participant, which mediated acetaminophen's effects on empathy. Together, these findings suggest that the physical painkiller acetaminophen reduces empathy for pain and provide a new perspective on the neurochemical bases of empathy. Because empathy regulates prosocial and antisocial behavior, these drug-induced reductions in empathy raise

concerns about the broader social side effects of acetaminophen, which is taken by almost a quarter of adults in the United States each week.

Mongrain, M., Z. Komeylian, et al. (2016). "**Happiness vs. Mindfulness exercises for individuals vulnerable to depression.**" *The Journal of Positive Psychology* 11(4): 366-377. <http://dx.doi.org/10.1080/17439760.2015.1092569>

An online 'positivity' exercise involving the practice of discrete positive emotions was pitted against a mindfulness meditation exercise and an active placebo control. The effects of positivity and meditation were examined in relationship to personality variables known to entail vulnerability to depression. Participants ($N = 741$) were randomly assigned to the positivity, mindfulness, or control condition. They completed their exercise for three weeks and were assessed on measures of subjective well-being at baseline, post-test, and one, and two months later. Results indicated that all groups showed significant decreases in depressive symptoms from baseline to two months. The positivity exercise uniquely predicted increases in meaning, pleasure, engagement, and satisfaction in life across follow-ups. Dependent individuals responded favorably to the positivity intervention in the short run, but worsened in the long run for pleasure-related happiness. Self-criticism was associated with significantly greater gains in life satisfaction following exercise completion.

Nelson, S. K., K. Layous, et al. (2016). "**Do unto others or treat yourself? The effects of prosocial and self-focused behavior on psychological flourishing.**" *Emotion*. <http://www.ncbi.nlm.nih.gov/pubmed/27100366>

When it comes to the pursuit of happiness, popular culture encourages a focus on oneself. By contrast, substantial evidence suggests that what consistently makes people happy is focusing prosocially on others. In the current study, we contrasted the mood- and well-being-boosting effects of prosocial behavior (i.e., doing acts of kindness for others or for the world) and self-oriented behavior (i.e., doing acts of kindness for oneself) in a 6-week longitudinal experiment. Across a diverse sample of participants ($N = 473$), we found that the 2 types of prosocial behavior led to greater increases in psychological flourishing than did self-focused and neutral behavior. In addition, we provide evidence for mechanisms explaining the relative improvements in flourishing among those prompted to do acts of kindness—namely, increases in positive emotions and decreases in negative emotions. Those assigned to engage in self-focused behavior did not report improved psychological flourishing, positive emotions, or negative emotions relative to controls. The results of this study contribute to a growing literature supporting the benefits of prosocial behavior and challenge the popular perception that focusing on oneself is an optimal strategy to boost one's mood. People striving for happiness may be tempted to treat themselves. Our results, however, suggest that they may be more successful if they opt to treat someone else instead.

Nummenmaa, L., L. Tuominen, et al. (2016). "**Social touch modulates endogenous mu-opioid system activity in humans.**" *Neuroimage*. <http://www.ncbi.nlm.nih.gov/pubmed/27238727>

In non-human primates, opioid-receptor blockade increases social grooming, and the endogenous opioid system has therefore been hypothesized to support maintenance of long-term relationships in humans as well. Here we tested whether social touch modulates opioidergic activation in humans using in vivo positron emission tomography (PET). Eighteen male participants underwent two PET scans with [^{11}C]carfentanil, a ligand specific to mu-opioid receptors (MOR). During the social touch scan, the participants lay in the scanner while their partners caressed their bodies in a non-sexual fashion. In the baseline scan, participants lay alone in the scanner. Social touch triggered pleasurable sensations and increased MOR availability in thalamus, striatum, and frontal, cingulate, and insular cortices. Modulation of activity of the opioid system by social touching might provide a neurochemical mechanism reinforcing social bonds between humans.

Oettingen, G., D. Mayer, et al. (2016). "**Pleasure now, pain later: Positive fantasies about the future predict symptoms of depression.**" *Psychol Sci* 27(3): 345-353. <http://www.ncbi.nlm.nih.gov/pubmed/26825106>

Though common sense suggests that positive thinking shelters people from depression, the four studies reported here showed that this intuition needs to be qualified: Positive thinking in the form of fantasies about the future did indeed relate to decreased symptoms of depression when measured concurrently; however, positive fantasies predicted more depressive symptoms when measured longitudinally. The pattern of results was observed for different indicators of fantasies and depression, in adults and in schoolchildren, and for periods of up to 7 months (Studies 1-4). In college students, low academic success partially mediated the predictive relation between positive fantasies and symptoms of depression (Study 4). Results add to existing research on the problematic effects of positive fantasies on performance by suggesting that indulging in positive fantasies predicts problems in mental health.

Rubertone, P. M., J. Gladstone, et al. (2016). "**How your bank balance buys happiness: The importance of "cash on hand" to life satisfaction.**" *Emotion*. <http://www.ncbi.nlm.nih.gov/pubmed/27064287>

Could liquid wealth, or "cash on hand"—the balance of one's checking and savings accounts—be a better predictor of life satisfaction than income? In a field study using 585 U.K. bank customers, we paired individual Satisfaction With Life Scale responses with anonymized account data held by the bank, including the full account balances for each respondent. Individuals with higher liquid wealth were found to have more positive perceptions of their financial well-being, which, in turn, predicted higher life satisfaction, suggesting that liquid wealth is indirectly associated with life satisfaction. This effect persisted after accounting for multiple controls, including investments, total spending, and indebtedness (which predicted financial well-being) and demographics (which predicted life satisfaction). Our results suggest that having readily accessible sources of cash is of unique importance to life satisfaction, above and beyond raw earnings, investments, or indebtedness. Therefore, to improve the well-being of citizens, policymakers should focus not just on boosting incomes but also on increasing people's immediate access to money.

Sirigatti, S., I. Penzo, et al. (2016). "**Relationships between humorism profiles and psychological well-being.**" *Personality and Individual Differences* 90: 219-224. <http://www.sciencedirect.com/science/article/pii/S0191886915300325>

The present study investigated which patterns of humor styles exist and if distinct combinations of humor styles differ in psychological well-being levels. The Italian adaptations of the Humor Styles Questionnaire (HSQ) and the Psychological Well-Being Scale (RPWB) were administered to 244 Italian students. Through k-means clustering three clusters were identified: (1) average score on self-defeating style and below average scores on the other styles; (2) above average scores on the beneficial styles (affiliative and self-enhancing humor) and below average scores on the detrimental styles (aggressive and self-defeating humor); (3) above average scores on each of the humor styles. Humor types were found to be related to psychological well-being, with members of Cluster 2 and Cluster 3 reporting higher levels in each RPWB than members of Cluster 1. Moreover, members of Cluster 2 reported higher levels on all well-being dimensions, when compared to members of the other two clusters. Theoretical and research implications of the findings are discussed.

Stoeber, J. and P. J. Corr (2016). "**A short empirical note on perfectionism and flourishing.**" *Personality and Individual Differences* 90: 50-53. <http://www.sciencedirect.com/science/article/pii/S0191886915006686>

Flourishing describes an optimal state of mental health characterized by emotional, psychological, and social well-being. In a recent publication, Flett and Hewitt (2015) suggested that perfectionism prevents people from flourishing. Perfectionism, however, is a multidimensional personality characteristic, and its various dimensions show different relationships with indicators of subjective well-being. In the first empirical study of perfectionism and flourishing, we examined the relationships of multidimensional perfectionism (self-oriented, other-oriented, and socially prescribed perfectionism) and self-reported flourishing in the past two weeks. Results from the sample of 388 university students revealed that only socially prescribed perfectionism showed a negative relationship with flourishing, whereas self-oriented perfectionism showed a positive relationship. These results were unchanged when positive and negative affect were controlled statistically. Our findings indicate that not all dimensions of perfectionism undermine flourishing and that it is important to differentiate perfectionistic strivings and concerns when regarding the perfectionism–flourishing relationship.

Sulemana, I. (2016). **"Are happier people more willing to make income sacrifices to protect the environment?"** *Social Indicators Research* 127(1): 447-467. <http://dx.doi.org/10.1007/s11205-015-0960-3>

There is considerable amount of debate about the effect of affluence on environmental concern. The empirical literature is inconclusive on this debate. Increasingly, more studies are examining individual level correlates of environmental concern. On the other hand, a large number of studies examine the correlates of happiness. An important aspect of the economics of happiness literature emphasizes the relationship between environmental quality or concern and happiness. A few scholars suggest that happiness may influence environmental concern. Yet studies on whether happiness affects environmental concern are lacking. This paper empirically investigates the effect of happiness on environmental concern in a cross-national sample. Using data for 18 countries, I find that happier people are more willing to make income sacrifices to protect the environment. This finding holds for residents of both African and developed countries.

Sutton, A., M. Evans, et al. (2016). **"The development and longitudinal evaluation of a wellbeing programme: An organisation case study."** *International Journal Of Wellbeing* 6(1): 180-195. <http://www.internationaljournalofwellbeing.org/index.php/ijow/article/view/487>

(Available in free full text) Wellbeing programmes are often initiated in organisations based on an assumption that they will promote employee engagement and performance. But the specific elements of a wellbeing programme are rarely evaluated for their efficacy. This case study reports on the development and refinement of a wellbeing programme at a large multi-site European organisation, analysing the utility of wellbeing offerings and the impact of the programme on employee wellbeing over the course of five years. Results from two internal surveys were analysed. The first, conducted at 18-month intervals between 2009 and 2014, evaluated employee engagement. The second, a tailored wellbeing survey conducted in 2014, measured employee wellbeing and perceptions of the individual wellbeing programme offerings. A number of key findings emerged: the wellbeing programme was highly regarded and reported to have a positive impact on employee engagement, some elements of the programme were better received than others, and there were significant differences in the wellbeing levels of different groups. Regression analyses provide evidence for the need to take account of individual employees' current levels of wellbeing when tailoring a wellbeing programme for them, with current wellbeing predicting up to 11% of the variance in preference for different elements of the programme. Results highlight some of the complexities that organisations should be aware of when understanding employee wellbeing, including the effect of national culture, job grade and current wellbeing levels. This case study provides insight into the development of a wellbeing programme and evidence for its positive contribution to employee engagement.

Toback, R. L., S. A. Graham-Bermann, et al. (2016). **"Outcomes of a character strengths-based intervention on self-esteem and self-efficacy of psychiatrically hospitalized youths."** *Psychiatric Services* 67(5): 574-577. <http://ps.psychiatryonline.org/doi/abs/10.1176/appi.ps.201500021>

Objective: Mental health treatment approaches based on character strengths can be used to complement the traditional focus on functional impairment. The study tested use of a character strengths-based intervention to enhance the self-esteem and self-efficacy of psychiatrically hospitalized youths. Methods: Eighty-one hospitalized adolescents were randomly assigned to intervention or comparison groups. The intervention used the Values in Action Inventory of Strengths for Youth to discover character strengths and incorporate them into coping skills. Self-efficacy and self-esteem were measured at baseline, postintervention, two weeks, and three months. Results: Self-esteem and self-efficacy initially increased in both groups, but only the intervention group showed sustained improvement. The intervention was associated with increased self-efficacy at two weeks and increased self-efficacy and self-esteem at three months. Conclusions: A brief, easily administered character strengths-based intervention may be an adjunctive tool in the treatment of psychiatrically hospitalized youths.

Trompetter, H. R., E. de Kleine, et al. (2016). **"Why does positive mental health buffer against psychopathology? An exploratory study on self-compassion as a resilience mechanism and adaptive emotion regulation strategy."** *Cognitive Therapy and Research*: 1-10. <http://dx.doi.org/10.1007/s10608-016-9774-0>

(Available in free full text) Growing evidence suggests that positive mental health or wellbeing protects against psychopathology. How and why those who flourish derive these resilient outcomes is, however, unknown. This exploratory study investigated if self-compassion, as it continuously provides a friendly, accepting and situational context for negative experiences, functions as a resilience mechanism and adaptive emotion regulation strategy that protects against psychopathology for those with high levels of positive mental health. Participants from the general population ($n = 349$) provided measures at one time-point on positive mental health (MHC-SF), self-compassion (SCS-SF), psychopathology (HADS) and negative affect (mDES). Self-compassion significantly mediated the negative relationship between positive mental health and psychopathology. Furthermore, higher levels of self-compassion attenuated the relationship between state negative affect and psychopathology. Findings suggest that especially individuals with high levels of positive mental health possess self-compassion skills that promote resilience against psychopathology. These might function as an adaptive emotion regulation strategy and protect against the activation of schema related to psychopathology following state negative affective experiences. Enhancing self-compassion is a promising positive intervention for clinical practice. It will not only impact psychopathology through reducing factors like rumination and self-criticism, but also improve positive mental health by enhancing factors such as kindness and positive emotions. This may reduce the future risk of psychopathology.

Van Cappellen, P., M. Toth-Gauthier, et al. (2016). **"Religion and well-being: The mediating role of positive emotions."** *Journal of Happiness Studies* 17(2): 485-505. <http://dx.doi.org/10.1007/s10902-014-9605-5>

Research has consistently shown that endorsing a religion or spirituality is to some extent related to one's well-being. Common studied explanations tap into the social and cognitive aspects of religion and spirituality. The present research aims at understanding how religiosity and spirituality exert their impact on well-being and investigates the role of a surprisingly neglected mechanism: positive emotions. Two cross-sectional studies using a quantitative approach are presented. In two different contexts (churchgoers in a European country and US university employees interested in meditation), results showed

that the relation between religion (Study 1), spirituality (Study 2) and well-being is mediated by positive emotions. Distinguishing between more and less relevant positive emotions in a religious/spiritual context, it was found that the effect was mediated by self-transcendent positive emotions (awe, gratitude, love, and peace) but not by other positive emotions (amusement and pride).

van Woerkom, M., A. B. Bakker, et al. (2016). **"Accumulative job demands and support for strength use: Fine-tuning the job demands-resources model using conservation of resources theory."** *J Appl Psychol* 101(1): 141-150. <http://www.ncbi.nlm.nih.gov/pubmed/26121090>

Absenteeism associated with accumulated job demands is a ubiquitous problem. We build on prior research on the benefits of counteracting job demands with resources by focusing on a still untapped resource for buffering job demands—that of strengths use. We test the idea that employees who are actively encouraged to utilize their personal strengths on the job are better positioned to cope with job demands. Based on conservation of resources (COR) theory, we hypothesized that job demands can accumulate and together have an exacerbating effect on company registered absenteeism. In addition, using job demands-resources theory, we hypothesized that perceived organizational support for strengths use can buffer the impact of separate and combined job demands (workload and emotional demands) on absenteeism. Our sample consisted of 832 employees from 96 departments (response rate = 40.3%) of a Dutch mental health care organization. Results of multilevel analyses indicated that high levels of workload strengthen the positive relationship between emotional demands and absenteeism and that support for strength use interacted with workload and emotional job demands in the predicted way. Moreover, workload, emotional job demands, and strengths use interacted to predict absenteeism. Strengths use support reduced the level of absenteeism of employees who experienced both high workload and high emotional demands. We conclude that providing strengths use support to employees offers organizations a tool to reduce absenteeism, even when it is difficult to redesign job demands.

Weinstein, D., J. Launay, et al. (2016). **"Group music performance causes elevated pain thresholds and social bonding in small and large groups of singers."** *Evol Hum Behav* 37(2): 152-158. <http://www.ncbi.nlm.nih.gov/pubmed/27158219>

Over our evolutionary history, humans have faced the problem of how to create and maintain social bonds in progressively larger groups compared to those of our primate ancestors. Evidence from historical and anthropological records suggests that group music-making might act as a mechanism by which this large-scale social bonding could occur. While previous research has shown effects of music making on social bonds in small group contexts, the question of whether this effect 'scales up' to larger groups is particularly important when considering the potential role of music for large-scale social bonding. The current study recruited individuals from a community choir that met in both small ($n = 20 - 80$) and large (a 'megachoir' combining individuals from the smaller subchoirs $n = 232$) group contexts. Participants gave self-report measures (via a survey) of social bonding and had pain threshold measurements taken (as a proxy for endorphin release) before and after 90 minutes of singing. Results showed that feelings of inclusion, connectivity, positive affect, and measures of endorphin release all increased across singing rehearsals and that the influence of group singing was comparable for pain thresholds in the large versus small group context. Levels of social closeness were found to be greater at pre- and post-levels for the small choir condition. However, the large choir condition experienced a greater change in social closeness as compared to the small condition. The finding that singing together fosters social closeness – even in large contexts where individuals are not known to each other – is consistent with evolutionary accounts that emphasize the role of music in social bonding, particularly in the context of creating larger cohesive groups than other primates are able to manage.