

# **48 healthy lifestyle & healthy aging abstracts**

## **may '18 newsletter**

Arvidsson, L., G. Eiben, et al. (2017). **"Bidirectional associations between psychosocial well-being and adherence to healthy dietary guidelines in European children: Prospective findings from the IDEFICS study."** *BMC Public Health* 17(1): 926. <https://doi.org/10.1186/s12889-017-4920-5>

(Available in free full text) Background In children the relationship between a healthy diet and psychosocial well-being has not been fully explored and the existing evidence is inconsistent. This study investigates the chronology of the association between children's adherence to healthy dietary guidelines and their well-being, with special attention to the influence of weight status on the association. Methods Seven thousand six hundred seventy five children 2 to 9 years old from the eight-country cohort study IDEFICS were investigated. They were first examined between September 2007 and June 2008 and re-examined again 2 years later. Psychosocial well-being was measured using self-esteem and parent relations questions from the KINDL® and emotional and peer problems from the Strengths and Difficulties Questionnaire. A Healthy Dietary Adherence Score (HDAS) was calculated from a 43-item food frequency questionnaire as a measure of the degree to which children's dietary intake follows nutrition guidelines. The analysis employed multilevel logistic regression (country as random effect) with bidirectional modeling of dichotomous dietary and well-being variables as both exposures and outcomes while controlling for respective baseline values. Results A higher HDAS at baseline was associated with better self-esteem (OR 1.2, 95% CI 1.0;1.4) and fewer emotional and peer problems (OR 1.2, 95% CI 1.1;1.3 and OR 1.3, 95% CI 1.2;1.4) 2 years later. For the reversed direction, better self-esteem was associated with higher HDAS 2 years later (OR 1.1 95% CI 1.0;1.29). The analysis stratified by weight status revealed that the associations between higher HDAS at baseline and better well-being at follow-up were similar in both normal weight and overweight children. Conclusion Present findings suggest a bidirectional relation between diet quality and self-esteem. Additionally, higher adherence to healthy dietary guidelines at baseline was associated with fewer emotional and peer problems at follow-up, independent of children's weight status.

Ashton, K., M. A. Bellis, et al. (2017). **"Do emotions related to alcohol consumption differ by alcohol type? An international cross-sectional survey of emotions associated with alcohol consumption and influence on drink choice in different settings."** *BMJ Open* 7(10). <http://bmjopen.bmj.com/content/bmjopen/7/10/e016089.full.pdf>

(Available in free full text) Objectives To examine the emotions associated with drinking different types of alcohol, explore whether these emotions differ by sociodemographics and alcohol dependency and whether the emotions associated with different drink types influence people's choice of drinks in different settings. Design International cross-sectional opportunistic survey (Global Drug Survey) using an online anonymous questionnaire in 11 languages promoted through newspapers, magazines and social media from November 2015 to January 2016. Study population Individuals aged 18–34 years who reported consumption of beer, spirits, red and white wine in the previous 12 months and were resident in countries with more than 200 respondents (n=21 countries; 29 836 respondents). Main outcome measures Positive and negative emotions associated with consumption of different alcoholic beverages (energised, relaxed, sexy, confident, tired, aggressive, ill, restless and tearful) over the past 12 months in different settings. Results Alcoholic beverages vary in the types of emotions individuals report they elicit, with spirits more frequently eliciting emotional changes of all types. Overall 29.8% of respondents reported feeling aggressive when drinking spirits, compared with only 7.1% when drinking red wine (p<0.001). Women more frequently reported feeling all emotions when drinking alcohol, apart from feelings of aggression. Respondents' level of alcohol dependency was strongly associated with feeling all emotions, with the likelihood of aggression being significantly higher in possible dependent versus low risk drinkers (adjusted OR 6.4; 95% CI 5.79 to 7.09; p<0.001). The odds of feeling the majority of positive and negative emotions also remained highest among dependent drinkers irrespective of setting. Conclusion Understanding emotions associated with alcohol consumption is imperative to addressing alcohol misuse, providing insight into what emotions influence drink choice between different groups in the population. The differences identified between sociodemographic groups and influences on drink choice within different settings will aid future public health practice to further comprehend individuals' drinking patterns and influence behaviour change.

Cacioppo, J. T., H. Y. Chen, et al. (2017). **"Reciprocal influences between loneliness and self-centeredness: A cross-lagged panel analysis in a population-based sample of african american, hispanic, and caucasian adults."** *Personality and Social Psychology Bulletin* 43(8): 1125-1135. <http://journals.sagepub.com/doi/abs/10.1177/0146167217705120>

Loneliness has been posited to increase the motivation to repair or replace deficient social relationships and, seemingly paradoxically, to increase the implicit motivation for self-preservation. In the current research, we report a cross-lagged panel analysis of 10 waves of longitudinal data (N = 229) on loneliness and self-centeredness (as gauged by Feeney and Collins's measure of chronic self-focus) in a representative sample of middle-aged and older adults. As predicted by the proposition that loneliness increases the implicit motivation for self-preservation, loneliness in the current year predicts self-centeredness in the subsequent year beyond what is explained by current-year demographic variables, self-centeredness, depressive symptomatology, and overall negative mood. Analyses also show that self-centeredness in the current year (net covariates) predicts loneliness in the subsequent year, a reciprocal relationship that could potentially contribute to the maintenance of loneliness. Theoretical and practical implications are discussed.

Condliffe, S., E. Işgın, et al. (2017). **"Get thee to the gym! A field experiment on improving exercise habits."** *Journal of Behavioral and Experimental Economics* 70(Supplement C): 23-32. <http://www.sciencedirect.com/science/article/pii/S2214804317300861>

We explore the efficacy of a combination of interventions to encourage exercise in a field experiment hosted at a large public university. The experimental groups include individuals and teams and those with and without information about peers. We find that team incentives are associated with greater behavior modification (e.g. more gym visits) than individual incentives. Information on peers' gym attendance (either in a team or individual setting) also promotes more frequent gym use relative to a simple individual incentive. In addition, being in a team and receiving information on peers are effective in changing a non-user of the gym to a user. We also observe that periodic information feedback has a longer-lasting impact on gym attendance than other interventions. Our findings provide insight for any organization seeking to incentivize behavior change in the most efficient, and cost effective, manner.

Dehghan, M., A. Mente, et al. (2017). **"Associations of fats and carbohydrate intake with cardiovascular disease and mortality in 18 countries from five continents (pure): A prospective cohort study."** *The Lancet* 390(10107): 2050-2062. [http://dx.doi.org/10.1016/S0140-6736\(17\)32252-3](http://dx.doi.org/10.1016/S0140-6736(17)32252-3)

Background: The relationship between macronutrients and cardiovascular disease and mortality is controversial. Most available data are from European and North American populations where nutrition excess is more likely, so their applicability to other populations is unclear. Methods: The Prospective Urban Rural Epidemiology (PURE) study is a large, epidemiological cohort study of individuals aged 35–70 years (enrolled between Jan 1, 2003, and March 31, 2013) in 18 countries with a median follow-up of 7.4 years (IQR 5.3–9.3). Dietary intake of 135 335 individuals was recorded using validated food frequency questionnaires. The primary outcomes were total mortality and major cardiovascular events (fatal cardiovascular disease, non-fatal myocardial infarction, stroke, and heart failure). Secondary outcomes were all myocardial infarctions, stroke, cardiovascular disease mortality, and non-cardiovascular disease mortality. Participants were categorised into quintiles of nutrient intake (carbohydrate, fats, and protein) based on percentage of energy provided by nutrients. We assessed the associations between consumption of carbohydrate, total fat, and each type of fat with cardiovascular disease and total mortality. We calculated hazard ratios (HRs) using a multivariable Cox frailty model with random intercepts to account for centre clustering. Findings: During follow-up, we documented 5796 deaths and 4784 major cardiovascular disease events. Higher carbohydrate intake was associated with an increased risk of total mortality (highest [quintile 5] vs lowest quintile [quintile 1] category, HR 1.28 [95% CI 1.12–1.46],  $p_{\text{trend}}=0.0001$ ) but not with the risk of cardiovascular disease or cardiovascular disease mortality. Intake of total fat and each type of fat was associated with lower risk of total mortality (quintile 5 vs quintile 1, total fat: HR 0.77 [95% CI 0.67–0.87],  $p_{\text{trend}}<0.0001$ ; saturated fat, HR 0.86 [0.76–0.99],  $p_{\text{trend}}=0.0088$ ; monounsaturated fat: HR 0.81 [0.71–0.92],  $p_{\text{trend}}<0.0001$ ; and polyunsaturated fat: HR 0.80 [0.71–0.89],  $p_{\text{trend}}<0.0001$ ). Higher saturated fat intake was associated with lower risk of stroke (quintile 5 vs quintile 1, HR 0.79 [95% CI 0.64–0.98],  $p_{\text{trend}}=0.0498$ ). Total fat and saturated and unsaturated fats were not significantly associated with risk of myocardial infarction or cardiovascular disease mortality. Interpretation: High carbohydrate intake was associated with higher risk of total mortality, whereas total fat and individual types of fat were related to lower total mortality. Total fat and types of fat were not associated with cardiovascular disease, myocardial infarction, or cardiovascular disease mortality, whereas saturated fat had an inverse association with stroke. Global dietary guidelines should be reconsidered in light of these findings.

Demir, M., A. Tyra, et al. (2018). **"Be there for me and i will be there for you: Friendship maintenance mediates the relationship between capitalization and happiness."** *Journal of Happiness Studies*. <https://doi.org/10.1007/s10902-017-9957-8>

Friends share positive events with each other, and the perception of the responses as active and constructive (i.e., enthusiastic) is related to happiness. Two studies ( $N = 685$ ) investigated friendship maintenance (FM) in same-sex best friendships as the mediator of the relationship between perceived responses to capitalization attempts (PRCA) and happiness. Results in both studies showed that PRCA was positively related to FM, and that FM explained why PRCA was associated with happiness, even when different measures of happiness were utilized. Although women reported higher levels of PRCA and FM compared to men, the associations of the friendship experiences with happiness were similar and the model was supported for both women and men. The results are discussed in terms of the importance of understanding the role of friendship experiences in the capitalization process. Also, directions for future research were provided.

Deri, S., S. Davidai, et al. (2017). **"Home alone: Why people believe others' social lives are richer than their own."** *J Pers Soc Psychol* 113(6): 858-877. <https://www.ncbi.nlm.nih.gov/pubmed/29189037>

Although decades of research show that people tend to see themselves in the best possible light, we present evidence that people have a surprisingly grim outlook on their social lives. In 11 studies ( $N = 3,293$ ; including 3 preregistered), we find that most people think that others lead richer and more active social lives than they do themselves. We show that this bias holds across multiple populations (college students, MTurk respondents, shoppers at a local mall, and participants from a large, income-stratified online panel), correlates strongly with well-being, and is particularly acute for social activities (e.g., the number of parties one attends or proximity to the "inner circle" of one's social sphere). We argue that this pessimistic bias stems from the fact that trendsetters and socialites come most easily to mind as a standard of comparison and show that reducing the availability of extremely social people eliminates this bias. We conclude by discussing implications for research on social comparison and self-enhancement.

Deri, S. and E. M. Zitek (2017). **"Did you reject me for someone else? Rejections that are comparative feel worse."** *Pers Soc Psychol Bull* 43(12): 1675-1685. <https://www.ncbi.nlm.nih.gov/pubmed/28914145>

Rejections differ. For those who are rejected, one important difference is whether they are rejected for someone else (comparative rejection) or no one at all (noncomparative rejection). We examined the effect of this distinction on emotional reactions to a rejection in four studies ( $N = 608$ ), one of which was fully preregistered. Our results show that comparative rejections feel worse than noncomparative rejections and that this may be because such rejections lead to an increased sense of exclusion and decreased belonging. Furthermore, we found evidence that, by default, people react to a rejection as though it were comparative—that is, in the absence of any information about whether they have been rejected for someone or no one, they react as negatively as if they were rejected for someone. Our discussion focuses on the implications of these findings, including why people often seek out information in the wake of a rejection.

Doenyaş, C. (2017). **"Self versus other oriented social motivation, not lack of empathic or moral ability, explains behavioral outcomes in children with high theory of mind abilities."** *Motivation and Emotion*. <https://doi.org/10.1007/s11031-017-9636-4>

Although traditionally it was believed that having advanced Theory of Mind (ToM) abilities led to social competence and prosocial behaviors in children, it has also been shown that some children use their high ToM abilities to strategically manipulate others instead of acting prosocially towards them. It is an important developmental task to understand the factors contributing to this behavioral divergence for children with advanced ToM understanding, which also has significant practical implications for bullying interventions. We contend that this divergence cannot be explained by a lack of moral competence or empathy, but that the existing evidence lends itself better to a motivational explanation. We propose that the direction of social motivation varies across children and the self versus other oriented social motivation determines if children will use their developed morality and empathy competencies in social interactions to act prosocially or instead cognitively divert moral and empathic emotions to avoid negative feelings about manipulating others. We show how self versus other orientation has been used as a legitimate distinction to inform other domains of psychology and conclude by discussing possible correlates and precursors of this difference in the direction of social orientation in children.

Dunbar, R. I. M. (2018). **"The anatomy of friendship."** *Trends in Cognitive Sciences* 22(1): 32-51. <http://dx.doi.org/10.1016/j.tics.2017.10.004>

Friendship (with friends, partners, family & relatives) is the single most important factor influencing our health, well-being, and happiness. Creating and maintaining friendships is, however, extremely costly, in terms of both the time that has to be invested and the cognitive mechanisms that underpin them. Nonetheless, personal social networks exhibit many constancies,

notably in their size and their hierarchical structuring. Understanding the processes that give rise to these patterns and their evolutionary origins requires a multidisciplinary approach that combines social and neuropsychology as well as evolutionary biology.

Dyer, J., G. Davison, et al. (2017). **"Effect of a mediterranean type diet on inflammatory and cartilage degradation biomarkers in patients with osteoarthritis."** *The Journal of Nutrition, Health & Aging* 21(5): 562-566. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC5405095/>

(Available in free full text) OBJECTIVES: To investigate the effects of a Mediterranean type diet on patients with osteoarthritis (OA). PARTICIPANTS: Ninety-nine volunteers with OA (aged 31 - 90 years) completed the study (83% female). SETTING: Southeast of England, UK. DESIGN: Participants were randomly allocated to the dietary intervention (DIET, n = 50) or control (CON, n = 49). The DIET group were asked to follow a Mediterranean type diet for 16 weeks whereas the CON group were asked to follow their normal diet. MEASUREMENTS: All participants completed an Arthritis Impact Measurement Scale (AIMS2) pre-, mid- and post- study period. A subset of participants attended a clinic at the start and end of the study for assessment of joint range of motion, ROM (DIET = 33, CON = 28), and to provide blood samples (DIET = 29, CON = 25) for biomarker analysis (including serum cartilage oligomeric matrix protein (sCOMP) (a marker of cartilage degradation) and a panel of other relevant biomarkers including pro- and anti-inflammatory cytokines). RESULTS: There were no differences between groups in the response of any AIMS2 components and most biomarkers ( $p > 0.05$ ), except the pro-inflammatory cytokine IL-1 $\alpha$ , which decreased in the DIET group (~47%,  $p = 0.010$ ). sCOMP decreased in the DIET group by 1 U/L (~8%,  $p = 0.014$ ). There was a significant improvement in knee flexion and hip rotation ROM in the DIET group ( $p < 0.05$ ). CONCLUSIONS: The average reduction in sCOMP in the DIET group (1 U/L) represents a meaningful change, but the longer term effects require further study.

Espie, C. A., P. Farias Machado, et al. (2017). **"The sleep condition indicator: Reference values derived from a sample of 200 000 adults."** *Journal of Sleep Research*: n/a-n/a. <http://dx.doi.org/10.1111/jsr.12643>

The Sleep Condition Indicator (SCI) is an eight-item rating scale that was developed to screen for insomnia disorder based on DSM-5 criteria. It has been shown previously to have good psychometric properties among several language translations. We developed age- and sex-referenced values for the SCI to assist the evaluation of insomnia in everyday clinical practice. A random sample of 200 000 individuals (58% women, mean age:  $31 \pm 13$  years) was selected from those who had completed the SCI via several internet platforms. Descriptive and inferential methods were applied to generate reference data and indices of reliable change for the SCI for men and women across the age deciles 16-25, 26-35, 36-45, 46-55, 56-65 and 66-75 years. The mean SCI score for the full sample was  $14.97 \pm 5.93$ . Overall, women scored worse than men ( $14.29 \pm 5.83$  versus  $15.90 \pm 5.94$ ; mean difference:  $-1.60$ ,  $\eta^2 = 0.018$ , Cohen's  $d = 0.272$ ) and those of older age scored worse than those younger ( $-0.057$  points per year, 95% confidence interval (CI):  $-0.059$  to  $-0.055$ ) relative to age 16-25 years. The Reliable Change Index was established at seven scale points (or six if item 8 is excluded). In conclusion, the SCI is a useful instrument for clinicians and researchers that can help them to screen for insomnia, compare completers to individuals of similar age and sex and establish whether a reliable change was achieved following treatment.

Feldman, G., H. Lian, et al. (2017). **"Frankly, we do give a damn: The relationship between profanity and honesty."** *Social Psychological and Personality Science* 8(7): 816-826. <http://journals.sagepub.com/doi/abs/10.1177/1948550616681055>

There are two conflicting perspectives regarding the relationship between profanity and dishonesty. These two forms of norm-violating behavior share common causes and are often considered to be positively related. On the other hand, however, profanity is often used to express one's genuine feelings and could therefore be negatively related to dishonesty. In three studies, we explored the relationship between profanity and honesty. We examined profanity and honesty first with profanity behavior and lying on a scale in the lab (Study 1;  $N = 276$ ), then with a linguistic analysis of real-life social interactions on Facebook (Study 2;  $N = 73,789$ ), and finally with profanity and integrity indexes for the aggregate level of U.S. states (Study 3;  $N = 50$  states). We found a consistent positive relationship between profanity and honesty; profanity was associated with less lying and deception at the individual level and with higher integrity at the society level.

Fietkiewicz, K. (2017). **"Jumping the digital divide: How do "silver surfers" and "digital immigrants" use social media?"** *Networking Knowledge: Journal of the MeCCSA Postgraduate Network* 10(1): 5-26. <https://ojs.meccsa.org.uk/index.php/netknow/article/view/494>

(Available in free full text) For a long time, a digital divide was given between young Web users and older population, which out of anxiety or incapability restrained from using the new technologies. Recently, the so-called "Silver Surfers" and "Digital Immigrants" tend to use the Web not only for sending emails but also increasingly for socializing on social media services (e.g., Kübler 2009; Frees & Koch 2015). This paper aims to discuss the differences in use and adoption of social media platforms between different generations. An online questionnaire was created and distributed among social media users of all ages. The results indicate that the older generations represented a not insignificant part of social media community. They often use Facebook to keep in touch with friends and family, some apply Twitter and are fond of new followers and many re-tweets, and others just enjoy new videos on YouTube. There indeed appear to exist inter-generational differences in social media usage. In addition, data analysis leads to the conclusion that there are intra-generational gender-dependent particularities as well.

Fu, Z., D. Liska, et al. (2017). **"Cranberry reduces the risk of urinary tract infection recurrence in otherwise healthy women: A systematic review and meta-analysis."** *The Journal of Nutrition* 147(12): 2282-2288. <http://jn.nutrition.org/content/147/12/2282.abstract>

(Available in free full text) Background: Cranberry (*Vaccinium* spp.) has been advocated for treatment of urinary tract infection (UTI); however, its efficacy is controversial. Women have a 50% risk of UTI over their lifetime, and ~20-30% experience a subsequent UTI recurrence. Objective: We conducted this meta-analysis to assess the effect of cranberry on the risk of UTI recurrence in otherwise healthy women. Methods: Literature published before January 2011 was obtained from 2 published systematic reviews, and we conducted updated searches in EMBASE and MEDLINE (through July 2017). We included randomized controlled trials that were conducted in generally healthy nonpregnant women aged  $\geq 18$  y with a history of UTI, compared cranberry intervention to a placebo or control, and reported the outcome as the number of participants experiencing a UTI. Two researchers conducted abstract and full-text screenings, data extractions, and risk of bias assessments independently, and discrepancies were resolved by group consensus. Meta-analyses were performed by using Stata SE software (version 13). We employed a fixed-effect model using the Mantel-Haenszel method to estimate the summary risk if the heterogeneity was low to moderate ( $I^2 < 50\%$ ). Otherwise, we applied a random-effects model using the DerSimonian-Laird method. Results: We identified 7 randomized controlled trials conducted in healthy women at risk of UTI ( $n = 1498$  participants). Results of the meta-analysis showed that cranberry reduced the risk of UTI by 26% (pooled risk ratio: 0.74; 95% CI: 0.55, 0.98;  $I^2 = 54\%$ ). Risk of bias indicated that 2 studies had high loss to follow-up or selective outcome reporting. Overall, the studies were relatively small, with only 2 having  $>300$  participants. Conclusion: These results suggest that cranberry may be effective in preventing UTI recurrence in generally healthy women; however, larger high-quality studies are needed to confirm these findings.

Gan, M. and S. Chen (2017). **"Being your actual or ideal self? What it means to feel authentic in a relationship."** *Personality and Social Psychology Bulletin* 43(4): 465-478. <http://journals.sagepub.com/doi/abs/10.1177/0146167216688211>  
Relational authenticity—which refers to subjective feelings of authenticity in a specific relationship—confers well-being; yet little is known about what gives rise to it. The present research tested competing hypotheses about the basis of relational authenticity, whether it arises from being one's actual self in a relationship (actual-relational selves overlap), ideal self (relational-ideal selves overlap), or both. A pilot study examined lay beliefs about the basis of relational authenticity. Study 1 then showed that relational-ideal, but not actual-relational, overlap predicts relational authenticity. The remaining studies experimentally manipulated relational-ideal overlap, and showed that low overlap reduced relational authenticity compared with a control condition (Study 2), with varying actual-relational overlap (Study 3), and with varying actual-ideal overlap (Study 4). Several alternative accounts (e.g., negative general relationship perceptions) were addressed. We conclude that relational authenticity emanates largely from being one's ideal self in the relevant relationship, and discuss implications and future directions. [See the excellent BPS Digest comment on this paper at <https://digest.bps.org.uk/2017/03/08/feeling-authentic-in-a-relationship-comes-from-being-able-to-be-your-best-self-not-your-actual-self/> ].

Gasperi, M., M. Herbert, et al. (2017). **"Genetic and environmental influences on sleep, pain, and depression symptoms in a community sample of twins."** *Psychosomatic Medicine* 79(6): 646-654. [http://journals.lww.com/psychosomaticmedicine/Fulltext/2017/07000/Genetic\\_and\\_Environmental\\_Influences\\_on\\_Sleep,.6.aspx](http://journals.lww.com/psychosomaticmedicine/Fulltext/2017/07000/Genetic_and_Environmental_Influences_on_Sleep,.6.aspx)

Objective: We used quantitative genetic methods to evaluate whether sleep quality, pain, and depression symptoms share a common genetic diathesis, to estimate the genetic and environmental sources of covariance among these symptoms, and to test for possible causal relationships. Methods: A community sample of 400 twins from the University of Washington Twin Registry completed standardized self-report questionnaires. We used biometric modeling to assess genetic and environmental contribution to the association between sleep quality measured by the Pittsburgh Sleep Quality Index, pain measured by the Brief Pain Inventory, and depression symptoms measured by the Brief Symptom Inventory. Trivariate Cholesky structural equation models were used to decompose correlations among the phenotypes. Results: Heritability was estimated at 37% (95% confidence interval = 20%–51%) for sleep quality, 25% (9%–41%) for pain, and 39% (22%–53%) for depression. Nonshared environmental influences accounted for the remaining variance. The genetic correlation between sleep quality and pain had an rg value of .69 (95% confidence interval [CI] = 0.33–0.97), rg value of .56 (95% CI = 0.55–0.98) between pain and depression, and rg value of .61 (95% CI = 0.44–0.88) between depression and sleep quality. Nonshared environmental overlap was present between pain and sleep quality as well as depression and sleep quality. Conclusions: The link between sleep quality, pain, and depression was primarily explained by shared genetic influences. The genetic factors influencing sleep quality and pain were highly correlated even when accounting for depression. Findings support the hypothesis of a genetic link between depression and pain as well as potential causality for the association of sleep quality with pain and depression.

Gebauer, J. E., C. Sedikides, et al. (2017). **"The religiosity as social value hypothesis: A multi-method replication and extension across 65 countries and three levels of spatial aggregation."** *J Pers Soc Psychol* 113(3): e18-e39. <https://www.ncbi.nlm.nih.gov/pubmed/27442765>

Are religious people psychologically better or worse adjusted than their nonreligious counterparts? Hundreds of studies have reported a positive relation between religiosity and psychological adjustment. Recently, however, a comparatively small number of cross-cultural studies has questioned this staple of religiosity research. The latter studies find that religious adjustment benefits are restricted to religious cultures. Gebauer, Sedikides, and Neberich (2012) suggested the religiosity as social value hypothesis (RASV) as one explanation for those cross-cultural differences. RASV states that, in religious cultures, religiosity possesses much social value, and, as such, religious people will feel particularly good about themselves. In secular cultures, however, religiosity possesses limited social value, and, as such, religious people will feel less good about themselves, if at all. Yet, previous evidence has been inconclusive regarding RASV and regarding cross-cultural differences in religious adjustment benefits more generally. To clarify matters, we conducted 3 replication studies. We examined the relation between religiosity and self-esteem (the most direct and appropriate adjustment indicator, according to RASV) in a self-report study across 65 countries (N = 2,195,301), an informant-report study across 36 countries (N = 560,264), and another self-report study across 1,932 urban areas from 243 federal states in 18 countries (N = 1,188,536). Moreover, we scrutinized our results against 7, previously untested, alternative explanations. Our results fully and firmly replicated and extended prior evidence for cross-cultural differences in religious adjustment benefits. These cross-cultural differences were best explained by RASV.

Gendron, M. and L. Feldman Barrett (2018). **"Emotion perception as conceptual synchrony."** *Emotion Review* 0(0): 1754073917705717. <http://journals.sagepub.com/doi/abs/10.1177/1754073917705717>

Psychological research on emotion perception anchors heavily on an object perception analogy. We present static "cues," such as facial expressions, as objects for perceivers to categorize. Yet in the real world, emotions play out as dynamic multidimensional events. Current theoretical approaches and research methods are limited in their ability to capture this complexity. We draw on insights from a predictive coding account of neural activity and a grounded cognition account of concept representation to conceive of emotion perception as a stream of synchronized conceptualizations between two individuals, which is supported and shaped by language. We articulate how this framework can illuminate the fundamental need to study culture, as well as other sources of conceptual variation, in unpacking conceptual synchrony in emotion. We close by suggesting that the conceptual system provides the necessary flexibility to overcome gaps in emotional synchrony.

Harvey, S. B., S. Øverland, et al. (2018). **"Exercise and the prevention of depression: Results of the Hunt cohort study."** *American Journal of Psychiatry* 175(1): 28-36. <https://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2017.16111223>

Objective: The purpose of the present study was to address 1) whether exercise provides protection against new-onset depression and anxiety and 2) if so, the intensity and amount of exercise required to gain protection and, lastly, 3) the mechanisms that underlie any association. Method: A "healthy" cohort of 33,908 adults, selected on the basis of having no symptoms of common mental disorder or limiting physical health conditions, was prospectively followed for 11 years. Validated measures of exercise, depression, anxiety, and a range of potential confounding and mediating factors were collected. Results: Undertaking regular leisure-time exercise was associated with reduced incidence of future depression but not anxiety. The majority of this protective effect occurred at low levels of exercise and was observed regardless of intensity. After adjustment for confounders, the population attributable fraction suggests that, assuming the relationship is causal, 12% of future cases of depression could have been prevented if all participants had engaged in at least 1 hour of physical activity each week. The social and physical health benefits of exercise explained a small proportion of the protective effect. Previously proposed biological mechanisms, such as alterations in parasympathetic vagal tone, did not appear to have a role in explaining the protection against depression. Conclusions: Regular leisure-time exercise of any intensity provides protection against future

depression but not anxiety. Relatively modest changes in population levels of exercise may have important public mental health benefits and prevent a substantial number of new cases of depression.

Headey, B. and R. Muffels (2017). **"A theory of life satisfaction dynamics: Stability, change and volatility in 25-year life trajectories in Germany."** *Social Indicators Research*. <https://doi.org/10.1007/s11205-017-1785-z>

An adequate theory of life satisfaction (LS) needs to take account of both factors that tend to stabilise LS and those that change it. The most widely accepted theory in the recent past—set-point theory—focused solely on stability (Brickman and Campbell, in: Appley (ed) *Adaptation level theory*, Academic Press, New York, pp 287–302, 1971; Lykken and Tellegen in *Psychol Sci* 7:186–189, 1996). That theory is now regarded as inadequate by most researchers, given that national panel surveys in several Western countries show that substantial minorities of respondents have recorded large, long term changes in LS (Sheldon and Lucas in *The stability of happiness*, Elsevier, Amsterdam, 2014). In this paper we set out a preliminary revised theory, based mainly on analysis of the LS trajectories of the 2473 respondents in the German Socio-Economic Panel who reported their LS for 25 consecutive years in 1990–2014. The theory entails three sets of propositions in which we attempt to account for stability, change and also volatility. First, it is proposed that stability is primarily due to stable personality traits, and also to parental influence on LS. The second set of propositions indicates that medium and long term changes are due to differences and changes in personal values/life priorities and behavioural choices. Differences in the priority given to pro-social values, family values and materialistic values affect LS, as do behavioural choices relating to one's partner, physical exercise, social participation and networks, church attendance, and the balance between work and leisure. Medium term change is reinforced by two-way causation—positive feedback loops—between values, behavioural choices and LS. The third set of propositions breaks new ground in seeking to explain inter-individual differences in the volatility/variability of LS over time; why some individuals display high volatility and others low, even though their mean level of LS may change little over 25 years.

Hofer, M. K., H. K. Collins, et al. (2018). **"Olfactory cues from romantic partners and strangers influence women's responses to stress."** *Journal of Personality and Social Psychology* 114(1): 1-9. <http://dx.doi.org/10.1037/pspa0000110>

The scent of another person can activate memories, trigger emotions, and spark romantic attraction; however, almost nothing is known about whether and how human scents influence responses to stress. In the current study, 96 women were randomly assigned to smell one of three scents (their romantic partner's, a stranger's, or a neutral scent) and exposed to an acute stressor (Trier Social Stress Test). Perceived stress and cortisol were measured continuously throughout the study (5 and 7 times, respectively). Perceived stress was reduced in women who were exposed to their partner's scent. This reduction was observed during stress anticipation and stress recovery. Cortisol levels were elevated in women who were exposed to a stranger's scent. This elevation was observed throughout stress anticipation, peak stress, and stress recovery. The current work speaks to the critical role of human olfactory cues in social communication and reveals that social scents can impact both psychological and physiological reactions to stress.

Huang, K., M. Yeomans, et al. (2017). **"It doesn't hurt to ask: Question-asking increases liking."** *J Pers Soc Psychol* 113(3): 430-452. <https://www.ncbi.nlm.nih.gov/pubmed/28447835>

Conversation is a fundamental human experience that is necessary to pursue intrapersonal and interpersonal goals across myriad contexts, relationships, and modes of communication. In the current research, we isolate the role of an understudied conversational behavior: question-asking. Across 3 studies of live dyadic conversations, we identify a robust and consistent relationship between question-asking and liking: people who ask more questions, particularly follow-up questions, are better liked by their conversation partners. When people are instructed to ask more questions, they are perceived as higher in responsiveness, an interpersonal construct that captures listening, understanding, validation, and care. We measure responsiveness with an attitudinal measure from previous research as well as a novel behavioral measure: the number of follow-up questions one asks. In both cases, responsiveness explains the effect of question-asking on liking. In addition to analyzing live get-to-know-you conversations online, we also studied face-to-face speed-dating conversations. We trained a natural language processing algorithm as a "follow-up question detector" that we applied to our speed-dating data (and can be applied to any text data to more deeply understand question-asking dynamics). The follow-up question rate established by the algorithm showed that speed daters who ask more follow-up questions during their dates are more likely to elicit agreement for second dates from their partners, a behavioral indicator of liking. We also find that, despite the persistent and beneficial effects of asking questions, people do not anticipate that question-asking increases interpersonal liking.

Jeong, D. C. and J. Lee (2017). **"Snap back to reality: Examining the cognitive mechanisms underlying snapchat."** *Computers in Human Behavior* 77(Supplement C): 274-281. <http://www.sciencedirect.com/science/article/pii/S0747563217305344>

This paper identifies and examines the factors that make Snapchat a unique social medium. Snapchat departs from mainstream media forms in that they are fundamentally visual and occur real-time, thus demonstrating a stronger sense of "being present" in multiple spaces at the same time. Specifically, we argue that what adds to the appeal of Snapchat is a focus on Social Presence as well as on Theory of Mind, a construct that could potentially play a key role in the degree of Social Presence generated by a medium. A sample of 656 Snapchat users, aged from 18 to 29, showed significant links between measures of various precursors and components of Theory of Mind with dimensions of Social Presence, Snapchat Intensity, and frequency of Snapchat usage patterns. Further, the results of a mediation analysis suggest that increasing elements of Social Presence underlie the relationship between mechanisms of Theory of Mind and the intensity of a social media (Snapchat) in users' daily life. Taken in context of different social media platform uses, the results highlight how a platform that emphasizes such visual and real-time features over other features can fulfill a desired gap in established social media platforms and their practices.

Ji, X., M. A. Grandner, et al. (2017). **"The relationship between micronutrient status and sleep patterns: A systematic review."** *Public health nutrition* 20(4): 687-701. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC5675071/>

(Available in free full text) OBJECTIVE: To review articles on the relationship of dietary and circulating micronutrients with sleep patterns, and to identify issues surrounding implications for future research and public health practice. DESIGN: A systematic review was conducted. PubMed, Embase and Scopus were searched through January 2016. SETTING: Both experimental and observational studies were included. However, studies that focused on secondary sleep impairment due to comorbidities were excluded. SUBJECTS: Individuals in different age groups, from infants to older adults. RESULTS: A total of twenty-six articles were selected. In the articles reviewed, researchers generally supported a potential role of micronutrients, particularly Fe and Mg, in the development of sleep stages among infants and in reversing age-related alterations in sleep architecture in older adults. Micronutrient status has also been linked to sleep duration, with sleep duration positively associated with Fe, Zn and Mg levels, and negatively associated with Cu, K and vitamin B(12) levels. The mechanisms underlying these relationships include the impact of micronutrients on excitatory/inhibitory neurotransmitters and the expression of circadian genes. CONCLUSIONS: Although the number of studies on the relationship between micronutrient status and sleep remains low,

evidence has emerged that suggests a link between dietary/circulating micronutrients and sleep. Future research is needed to investigate the dose-dependent as well as the longitudinal relationships between micronutrient levels and human sleep across populations, test the interactions among micronutrients on sleep outcomes, and ultimately examine the clinical relevance of micronutrients on sleep health.

Lu, J. G., J. Quoidbach, et al. (2017). **"The dark side of going abroad: How broad foreign experiences increase immoral behavior."** *J Pers Soc Psychol* 112(1): 1-16. <https://www.ncbi.nlm.nih.gov/pubmed/28032773>

Because of the unprecedented pace of globalization, foreign experiences are increasingly common and valued. Past research has focused on the benefits of foreign experiences, including enhanced creativity and reduced intergroup bias. In contrast, the present work uncovers a potential dark side of foreign experiences: increased immoral behavior. We propose that broad foreign experiences (i.e., experiences in multiple foreign countries) foster not only cognitive flexibility but also moral flexibility. Using multiple methods (longitudinal, correlational, and experimental), 8 studies (N > 2,200) establish that broad foreign experiences can lead to immoral behavior by increasing moral relativism—the belief that morality is relative rather than absolute. The relationship between broad foreign experiences and immoral behavior was robust across a variety of cultural populations (anglophone, francophone), life stages (high school students, university students, MBA students, middle-aged adults), and 7 different measures of immorality. As individuals are exposed to diverse cultures, their moral compass may lose some of its precision. (PsycINFO Database Record)

McGeer, P. L., J. P. Guo, et al. (2018). **"Alzheimer's disease can be spared by nonsteroidal anti-inflammatory drugs."** *Journal of Alzheimer's Disease* 62(3): 1219-1222. <https://www.frontiersin.org/articles/10.3389/fpsyg.2018.00487/full>

(Available in free full text) Alzheimer's disease (AD) is characterized by deposits of amyloid- $\beta$  protein ( $A\beta$ ) in brain which become foci of inflammation. Neurons are destroyed by this inflammatory process, leading to the cognitive deficits which define AD clinical onset. Epidemiological studies indicate that nonsteroidal anti-inflammatory drugs (NSAIDs) can ameliorate this destructive process if they are started well before clinical signs develop. Biomarker studies indicate that the disease process starts at least a decade before cognitive deficits appear. This pre-clinical onset explains the NSAID effect. It also opens a window of opportunity for preventive treatment that can be met with a simple diagnostic test. Salivary levels of  $A\beta$ 42 may fulfill that need. They can be measured by a simple ELISA test we have developed using commercially available reagents. By this ELISA test, normal controls, who are not at risk for AD, have levels of  $A\beta$ 42 close to 20 pg/ml. AD cases, as well as high level controls, secrete levels in the range of 40–85 pg/ml. Widespread application of this test to detect high level controls, followed by NSAID consumption, could substantially reduce the prevalence of AD.

Miller, V., A. Mente, et al. (2017). **"Fruit, vegetable, and legume intake, and cardiovascular disease and deaths in 18 countries (pure): A prospective cohort study."** *The Lancet* 390(10107): 2037-2049. [http://dx.doi.org/10.1016/S0140-6736\(17\)32253-5](http://dx.doi.org/10.1016/S0140-6736(17)32253-5)

(Available in free full text) Background: The association between intake of fruits, vegetables, and legumes with cardiovascular disease and deaths has been investigated extensively in Europe, the USA, Japan, and China, but little or no data are available from the Middle East, South America, Africa, or south Asia. Methods: We did a prospective cohort study (Prospective Urban Rural Epidemiology [PURE] in 135 335 individuals aged 35 to 70 years without cardiovascular disease from 613 communities in 18 low-income, middle-income, and high-income countries in seven geographical regions: North America and Europe, South America, the Middle East, south Asia, China, southeast Asia, and Africa. We documented their diet using country-specific food frequency questionnaires at baseline. Standardised questionnaires were used to collect information about demographic factors, socioeconomic status (education, income, and employment), lifestyle (smoking, physical activity, and alcohol intake), health history and medication use, and family history of cardiovascular disease. The follow-up period varied based on the date when recruitment began at each site or country. The main clinical outcomes were major cardiovascular disease (defined as death from cardiovascular causes and non-fatal myocardial infarction, stroke, and heart failure), fatal and non-fatal myocardial infarction, fatal and non-fatal strokes, cardiovascular mortality, non-cardiovascular mortality, and total mortality. Cox frailty models with random effects were used to assess associations between fruit, vegetable, and legume consumption with risk of cardiovascular disease events and mortality. Findings: Participants were enrolled into the study between Jan 1, 2003, and March 31, 2013. For the current analysis, we included all unrefuted outcome events in the PURE study database through March 31, 2017. Overall, combined mean fruit, vegetable and legume intake was 3.91 (SD 2.77) servings per day. During a median 7.4 years (5.5–9.3) of follow-up, 4784 major cardiovascular disease events, 1649 cardiovascular deaths, and 5796 total deaths were documented. Higher total fruit, vegetable, and legume intake was inversely associated with major cardiovascular disease, myocardial infarction, cardiovascular mortality, non-cardiovascular mortality, and total mortality in the models adjusted for age, sex, and centre (random effect). The estimates were substantially attenuated in the multivariable adjusted models for major cardiovascular disease (hazard ratio [HR] 0.90, 95% CI 0.74–1.10, ptrend=0.1301), myocardial infarction (0.99, 0.74–1.31; ptrend=0.2033), stroke (0.92, 0.67–1.25; ptrend=0.7092), cardiovascular mortality (0.73, 0.53–1.02; ptrend=0.0568), non-cardiovascular mortality (0.84, 0.68–1.04; ptrend =0.0038), and total mortality (0.81, 0.68–0.96; ptrend<0.0001). The HR for total mortality was lowest for three to four servings per day (0.78, 95% CI 0.69–0.88) compared with the reference group, with no further apparent decrease in HR with higher consumption. When examined separately, fruit intake was associated with lower risk of cardiovascular, non-cardiovascular, and total mortality, while legume intake was inversely associated with non-cardiovascular death and total mortality (in fully adjusted models). For vegetables, raw vegetable intake was strongly associated with a lower risk of total mortality, whereas cooked vegetable intake showed a modest benefit against mortality. Interpretation: Higher fruit, vegetable, and legume consumption was associated with a lower risk of non-cardiovascular, and total mortality. Benefits appear to be maximum for both non-cardiovascular mortality and total mortality at three to four servings per day (equivalent to 375–500 g/day).

Nickel, L. B., B. W. Roberts, et al. (2018). **"No evidence of a curvilinear relation between conscientiousness and relationship, work, and health outcomes."** *J Pers Soc Psychol*. <https://www.ncbi.nlm.nih.gov/pubmed/29543491>

Across 2 studies and 4 samples (Ns = 8,332, 2,136, 4,963, and 753, respectively), we tested whether the relation between conscientiousness and variables associated with important aspects of individuals' lives were curvilinear such that being high on conscientiousness was manifestly negative. Across multiple outcomes including measures of health, well-being, relationship satisfaction, job satisfaction, and organizational citizenship, we found no evidence for a systematic curvilinear relation between conscientiousness and these outcomes. Furthermore, heeding the call to use more sophisticated psychometric modeling of the conscientiousness spectrum, we used different types of scale construction and scoring methods (i.e., dominance and ideal point) and again found no evidence of curvilinear relationships between conscientiousness and the aforementioned variables. We discuss the potential reasons for the inconsistency with past research.

Okulicz-Kozaryn, A. and J. M. Mazelis (2017). **"More unequal in income, more unequal in wellbeing."** *Social Indicators Research* 132(3): 953-975. <https://doi.org/10.1007/s11205-016-1327-0>

This study focuses on the long-term trend in happiness by income level in the United States. General Social Survey data suggest that in the past, rich and poor Americans were not only more equal in terms of income, but also in terms of their subjective wellbeing: the happiness gap between the poor and the rich has been increasing. Today's poor suffer greater relative unhappiness than the poor of past decades. The gap between the poor and the rich is substantial, approximately 0.4 on a 1–3 happiness scale. The increase in the happiness gap is striking: comparing the 1970s to the 2000s, the gap has widened by about 40 % between the poor and the rich, and by about 50 % between the middle class and the rich.

Parletta, N., D. Zarnowiecki, et al. (2017). **"A mediterranean-style dietary intervention supplemented with fish oil improves diet quality and mental health in people with depression: A randomized controlled trial (helfimed)."** *Nutritional Neuroscience*: 1-14. <https://doi.org/10.1080/1028415X.2017.1411320>

(Available in free full text) Objectives: We investigated whether a Mediterranean-style diet (MedDiet) supplemented with fish oil can improve mental health in adults suffering depression. Methods: Adults with self-reported depression were randomized to receive fortnightly food hampers and MedDiet cooking workshops for 3 months and fish oil supplements for 6 months, or attend social groups fortnightly for 3 months. Assessments at baseline, 3 and 6 months included mental health, quality of life (QoL) and dietary questionnaires, and blood samples for erythrocyte fatty acid analysis. Results: n = 152 eligible adults aged 18–65 were recruited (n = 95 completed 3-month and n = 85 completed 6-month assessments). At 3 months, the MedDiet group had a higher MedDiet score (t = 3.95, P < 0.01), consumed more vegetables (t = 3.95, P < 0.01), fruit (t = 2.10, P = 0.04), nuts (t = 2.29, P = 0.02), legumes (t = 2.41, P = 0.02) wholegrains (t = 2.63, P = 0.01), and vegetable diversity (t = 3.27, P < 0.01); less unhealthy snacks (t = -2.10, P = 0.04) and red meat/chicken (t = -2.13, P = 0.04). The MedDiet group had greater reduction in depression (t = -2.24, P = 0.03) and improved mental health QoL scores (t = 2.10, P = 0.04) at 3 months. Improved diet and mental health were sustained at 6 months. Reduced depression was correlated with an increased MedDiet score (r = -0.298, P = 0.01), nuts (r = -0.264, P = 0.01), and vegetable diversity (r = -0.303, P = 0.01). Other mental health improvements had similar correlations, most notably for increased vegetable diversity and legumes. There were some correlations between increased omega-3, decreased omega-6 and improved mental health. Discussion: This is one of the first randomized controlled trials to show that healthy dietary changes are achievable and, supplemented with fish oil, can improve mental health in people with depression.

Protzko, J. (2017). **"Kids these days: 50 years of the marshmallow task."** *Open Science Framework*. <https://osf.io/j9tuz/>

(Available in free full text) Have children gotten worse at their ability to delay gratification? We analyze the past 50 years of data on the Marshmallow test of delay of gratification. Children must wait to get two preferred treats; if they cannot wait, they only get one. Duration for how long children can delay has been associated with a host of positive life outcomes. Here we provide the first evidence on whether children's ability to delay gratification has truly been decreasing, as theories of technology or a culture of instant gratification have predicted. Before analyzing the data, we polled 260 experts in cognitive development, 84% of who believed kids these days are getting worse or are no different. Contrary to this prediction, kids these days are better able to delay gratification than they were in the past, corresponding to a fifth of a standard deviation increase in ability per decade. [And see excellent BPS discussion at <https://digest.bps.org.uk/2017/09/20/children-of-today-are-better-at-delaying-gratification-than-previous-generations/>].

Reis, H. T., S. D. O'Keefe, et al. (2017). **"Fun is more fun when others are involved."** *The Journal of Positive Psychology* 12(6): 547-557. <https://doi.org/10.1080/17439760.2016.1221123>

Fun activities are commonly sought and highly desired yet their affective side has received little scrutiny. The present research investigated two features of fun in two daily diary studies and one laboratory experiment. First, we examined the affective state associated with fun experiences. Second, we investigated the social context of fun, considering whether shared fun is more enjoyable than solitary fun. Findings from these studies indicated that fun is associated with both high-activation and low-activation positive affects, and that it is enhanced when experienced with others (especially friends). However, social fun was associated with increases in high-activation but not low-activation positive affect, suggesting that social interaction emphasizes energizing affective experiences. We also found that loneliness moderated the latter effects, such that lonely individuals received a weaker boost from shared compared to solitary fun. These results add to what is known about the impact of social contexts on affective experience.

Rucklidge, J. J., M. J. F. Eggleston, et al. (2018). **"Vitamin-mineral treatment improves aggression and emotional regulation in children with adhd: A fully blinded, randomized, placebo-controlled trial."** *Journal of Child Psychology and Psychiatry* 59(3): 232-246. <http://dx.doi.org/10.1111/jcpp.12817>

Background: Evaluation of broad-spectrum micronutrient (vitamins and minerals) treatment for childhood ADHD has been limited to open-label studies that highlight beneficial effects across many aspects of psychological functioning. Method: This is the first fully blinded randomized controlled trial of medication-free children (n = 93) with ADHD (7–12 years) assigned to either micronutrients (n = 47) or placebo (n = 46) in a 1:1 ratio, for 10 weeks. All children received standardized ADHD assessments. Data were collected from clinicians, parents, participants and teachers across a range of measures assessing ADHD symptoms, general functioning and impairment, mood, aggression and emotional regulation. Results: Intent-to-treat analyses showed significant between-group differences favouring micronutrient treatment on the Clinical Global Impression-Improvement (ES = 0.46), with 47% of those on micronutrients identified as 'much' to 'very much' improved versus 28% on placebo. No group differences were identified on clinician, parent and teacher ratings of overall ADHD symptoms (ES ranged 0.03–0.17). However, according to clinicians, 32% of those on micronutrients versus 9% of those on placebo showed a clinically meaningful improvement on inattentive (OR = 4.9; 95% CI: 1.5–16.3), but no group differences on improvement in hyperactive-impulsive symptoms (OR = 1.0; 95% CI: 0.4–2.5). Based on clinician, parent and teacher report, those on micronutrients showed greater improvements in emotional regulation, aggression and general functioning compared to placebo (ES ranged 0.35–0.66). There were two dropouts per group, no group differences in adverse events and no serious adverse events identified. Blinding was successful with guessing no better than chance. Conclusions: Micronutrients improved overall function, reduced impairment and improved inattention, emotional regulation and aggression, but not hyperactive/impulsive symptoms, in this sample of children with ADHD. Although direct benefit for core ADHD symptoms was modest, with mixed findings across raters, the low rate of adverse effects and the benefits reported across multiple areas of functioning indicate micronutrients may be a favourable option for some children, particularly those with both ADHD and emotional dysregulation.

Selden, M. and A. S. Goodie (2018). **"Review of the effects of five factor model personality traits on network structures and perceptions of structure."** *Social Networks* 52: 81-99. <http://www.sciencedirect.com/science/article/pii/S0378873316302982>

We review recent research on Five Factor Model personality and social network analysis to assess how structures develop and are perceived. Extraversion and agreeableness relate consistently to personal but not workplace networks. Extraverts are more likely to seek connections, whereas agreeable individuals receive connections from others. Openness

predicts network diversity and is marginally related to position when groups pursue collective goals. Conscientiousness is associated with maintaining certain personal relationships, but is strongly related to central positions in workplace networks. Neuroticism has no consistent relationship with network size or composition, and is differentially related to network positions, depending on the context.

Siddaway, A. P., P. J. Taylor, et al. (2018). **"Reconceptualizing anxiety as a continuum that ranges from high calmness to high anxiety: The joint importance of reducing distress and increasing well-being."** *Journal of Personality and Social Psychology* 114(2): e1-e11. <http://psycnet.apa.org/record/2017-09432-001>

We first replicate a study by Vautier and Pohl (2009), who used the State-Trait Anxiety Inventory (STAI) to reexamine the structure of anxiety. Using two large samples (N = 4,138 and 1,824), we also find that state and trait anxiety measure continua that range from high calmness to high anxiety. We then significantly extend previous findings and make the clinical importance of this topic more explicit by characterizing the (linear or nonlinear) form of the relationship between the calmness-anxiety continuum and other psychiatric variables for the first time. This form is critical to understanding anxiety problems, as discontinuities in relationships with other psychological conditions could be used to define a natural boundary of problematic anxiety. Baseline levels on the calmness-anxiety continuum are found to have a near linear relationship with changes in depression, aggression, and substance misuse over time. Taken together, these results indicate the joint importance and usefulness of treating anxiety problems and promoting calmness, as doing so may promote resilience from developing other psychiatric conditions. Psychiatric and psychological interventions that are grounded in this continuum conceptualization would logically be stopped when an individual reports experiencing high levels of calmness. Our results point to the usefulness of early intervention and prevention (when people begin to move away from high calmness) and instilling resilience (by providing interventions to move people toward high calmness).

Small, G. W., P. Siddarth, et al. (2018). **"Memory and brain amyloid and tau effects of a bioavailable form of curcumin in non-demented adults: A double-blind, placebo-controlled 18-month trial."** *The American Journal of Geriatric Psychiatry* 26(3): 266-277. <http://www.sciencedirect.com/science/article/pii/S1064748117305110>

(Available in free full text) Objective Because curcumin's anti-inflammatory properties may protect the brain from neurodegeneration, we studied its effect on memory in non-demented adults and explored its impact on brain amyloid and tau accumulation using 2-(1-{6-[(2-[F-18]fluoroethyl)(methyl)amino]-2-naphthyl}ethylidene)malononitrile positron emission tomography (FDDNP-PET). Methods Forty subjects (age 51-84 years) were randomized to a bioavailable form of curcumin (Theracurmin® containing 90 mg of curcumin twice daily [N = 21]) or placebo (N = 19) for 18 months. Primary outcomes were verbal (Buschke Selective Reminding Test [SRT]) and visual (Brief Visual Memory Test-Revised [BVMT-R]) memory, and attention (Trail Making A) was a secondary outcome. FDDNP-PET signals (15 curcumin, 15 placebo) were determined in amygdala, hypothalamus, medial and lateral temporal, posterior cingulate, parietal, frontal, and motor (reference) regions. Mixed effects general linear models controlling for age and education, and effect sizes (ES; Cohen's d) were estimated. Results SRT Consistent Long-Term Retrieval improved with curcumin (ES = 0.63, p = 0.002) but not with placebo (ES = 0.06, p = 0.8; between-group: ES = 0.68, p = 0.05). Curcumin also improved SRT Total (ES = 0.53, p = 0.002), visual memory (BVMT-R Recall: ES = 0.50, p = 0.01; BVMT-R Delay: ES = 0.51, p = 0.006), and attention (ES = 0.96, p < 0.0001) compared with placebo (ES = 0.28, p = 0.1; between-group: ES = 0.67, p = 0.04). FDDNP binding decreased significantly in the amygdala with curcumin (ES = -0.41, p = 0.04) compared with placebo (ES = 0.08, p = 0.6; between-group: ES = 0.48, p = 0.07). In the hypothalamus, FDDNP binding did not change with curcumin (ES = -0.30, p = 0.2), but increased with placebo (ES = 0.26, p = 0.05; between-group: ES = 0.55, p = 0.02). Conclusions Daily oral Theracurmin may lead to improved memory and attention in non-demented adults. The FDDNP-PET findings suggest that symptom benefits are associated with decreases in amyloid and tau accumulation in brain regions modulating mood and memory.

Spengler, M., R. I. Damian, et al. (2018). **"How you behave in school predicts life success above and beyond family background, broad traits, and cognitive ability."** *J Pers Soc Psychol* 114(4): 620-636. <https://www.ncbi.nlm.nih.gov/pubmed/29504796>

In this study, we investigated the role of student characteristics and behaviors in a longitudinal study over a 50-year timespan (using a large U.S. representative sample of high school students). We addressed the question of whether behaviors in school have any long-lasting effects for one's later life. Specifically, we investigated the role of being a responsible student, interest in school, writing skills, and reading skills in predicting educational attainment, occupational prestige, and income 11 years (N = 81,912) and 50 years (N = 1,952) after high school. We controlled for parental socioeconomic status, IQ, and broad personality traits in all analyses. We found that student characteristics and behaviors in adolescence predicted later educational and occupational success above and beyond parental socioeconomic status, IQ, and broad personality traits. Having higher interest in school was related to higher educational attainment at years 11 and 50, higher occupational prestige at year 11, and higher income at year 50. Higher levels of being a responsible student were related to higher educational attainment and higher occupational prestige at years 11 and 50. This was the first longitudinal study to test the role of student characteristics and behaviors over and above broad personality traits. It highlights the potential importance of what students do in school and how they react to their experiences during that time. It also highlights the possibility that things that happen in specific periods of one's life may play out in ways far more significant than we expect.

Stephan, Y., A. R. Sutin, et al. (2018). **"Physical activity and personality development over twenty years: Evidence from three longitudinal samples."** *Journal of Research in Personality*. <http://www.sciencedirect.com/science/article/pii/S0092656618300175>

A physically inactive lifestyle is associated with maladaptive patterns of personality development over relatively short follow-up periods. The present study extends existing research by examining whether this association persists over 20 years. Participants (total N = 8723) were drawn from the Wisconsin Longitudinal Study Graduates and Siblings samples and the Midlife in the United States Study. Controlling for demographic factors and disease burden, baseline physical inactivity was related to steeper declines in conscientiousness in all three samples and a meta-analysis ( $\beta = -0.06$ ). The meta-analysis further showed that lower physical activity was associated with declines in openness ( $\beta = -0.05$ ), extraversion ( $\beta = -0.03$ ), and agreeableness ( $\beta = -0.03$ ). These findings provide evidence that a physically inactive lifestyle is associated with long-term detrimental personality trajectories.

Stubbs, B., D. Vancampfort, et al. (2018). **"Relationship between sedentary behavior and depression: A mediation analysis of influential factors across the lifespan among 42,469 people in low- and middle-income countries."** *Journal of Affective Disorders* 229: 231-238. <http://www.sciencedirect.com/science/article/pii/S0165032717321699>

Background Sedentary behavior (SB) is associated with diabetes, cardiovascular disease and low mood. There is a paucity of multi-national research investigating SB and depression, particularly among low- and middle-income countries. This

study investigated the association between SB and depression, and factors which influence this. Methods Cross-sectional data were analyzed from the World Health Organization's Study on Global Ageing and Adult Health. Depression was based on the Composite International Diagnostic Interview. The association between depression and SB (self-report) was estimated by multivariable linear and logistic regression analyses. Mediation analysis was used to identify influential factors. Results A total of 42,469 individuals (50.1% female, mean 43.8 years) were included. People with depression spent 25.6 (95%CI 18.5–42.7) more daily minutes in SB than non-depressed participants. This discrepancy was most notable in adults aged  $\geq 65y$  (35.6min more in those with depression). Overall, adjusting for socio-demographics and country, depression was associated with a 1.94 (95%CI 1.31–2.85) times higher odds for high SB (i.e.,  $\geq 8h/day$ ). The largest proportion of the SB-depression relationship was explained by mobility limitations (49.9%), followed by impairments in sleep/energy (43.4%), pain/discomfort (31.1%), anxiety (30.0%), disability (25.6%), cognition (16.1%), and problems with vision (11.0%). Other health behaviors (physical activity, alcohol consumption, smoking), body mass index, and social cohesion did not influence the SB-depression relationship. Conclusion People with depression are at increased risk of engaging in high levels of SB. This first multi-national study offers potentially valuable insight for a number of hypotheses which may influence this relationship, although testing with longitudinal studies is needed.

Tanwar, S. and N. Sen (2017). ***Yoga and aerobic exercise together may improve heart disease risk factors.*** 8th Emirates Cardiac Society Congress in collaboration with the American College of Cardiology Middle East Conference. Dubai.

Lifestyle intervention has been shown to aid in reducing the risk of death and heart disease comorbidities when used alongside medical management. Indian yoga is a combination of whole exercise of body, mind and soul, and a common practice throughout India. Researchers in this study looked specifically at Indian yoga and aerobic training's effect on the coronary risk factors of obese heart disease patients with type 2 diabetes. The study looked at 750 patients who had previously been diagnosed with coronary heart disease. One group of 225 patients participated in aerobic exercise, another group of 240 patients participated in Indian yoga, and a third group of 285 participated in both yoga and aerobic exercise. Each group did three, six-month sessions of yoga and/or aerobic exercise. The aerobic exercise only and yoga only groups showed similar reductions in blood pressure, total cholesterol, triglycerides, LDL, weight and waist circumference. However, the combined yoga and aerobic exercise group showed a two times greater reduction compared to the other groups. They also showed significant improvement in left ventricular ejection fraction, diastolic function and exercise capacity. "Combined Indian yoga and aerobic exercise reduce mental, physical and vascular stress and can lead to decreased cardiovascular mortality and morbidity," said Sonal Tanwar, PhD, a scholar in preventative cardiology, and Naresh Sen, DM, PhD, a consultant cardiologist, both at HG SMS Hospital, Jaipur, India. "Heart disease patients could benefit from learning Indian yoga and making it a routine part of daily life."

Veissière, S. P. L. and M. Stendel (2018). ***"Hypernatural monitoring: A social rehearsal account of smartphone addiction."*** *Frontiers in Psychology* 9(141). <https://www.frontiersin.org/article/10.3389/fpsyg.2018.00141>

(Available in free full text) We present a deflationary account of smartphone addiction by situating this purportedly antisocial phenomenon within the fundamentally social dispositions of our species. While we agree with contemporary critics that the hyper-connectedness and unpredictable rewards of mobile technology can modulate negative affect, we propose to place the locus of addiction on an evolutionarily older mechanism: the human need to monitor and be monitored by others. Drawing from key findings in evolutionary anthropology and the cognitive science of religion, we articulate a hypernatural monitoring model of smartphone addiction grounded in a general social rehearsal theory of human cognition. Building on recent predictive-processing views of perception and addiction in cognitive neuroscience, we describe the role of social reward anticipation and prediction errors in mediating dysfunctional smartphone use. We conclude with insights from contemplative philosophies and harm-reduction models on finding the right rituals for honoring social connections and setting intentional protocols for the consumption of social information.

Verduyn, P., O. Ybarra, et al. (2017). ***"Do social network sites enhance or undermine subjective well-being? A critical review."*** *Social Issues and Policy Review* 11(1): 274-302. <http://onlinelibrary.wiley.com/doi/10.1111/sipr.12033/full>

(Available in free full text) Social network sites are ubiquitous and now constitute a common tool people use to interact with one another in daily life. Here we review the consequences of interacting with social network sites for subjective well-being—that is, how people feel moment-to-moment and how satisfied they are with their lives. We begin by clarifying the constructs that we focus on in this review: social network sites and subjective well-being. Next, we review the literature that explains how these constructs are related. This research reveals: (a) negative relationships between passively using social network sites and subjective well-being, and (b) positive relationships between actively using social network sites and subjective well-being, with the former relationship being more robust than the latter. Specifically, passively using social network sites provokes social comparisons and envy, which have negative downstream consequences for subjective well-being. In contrast, when active usage of social network sites predicts subjective well-being, it seems to do so by creating social capital and stimulating feelings of social connectedness. We conclude by discussing the policy implications of this work.

Vergauwe, J., B. Wille, et al. (2018). ***"The double-edged sword of leader charisma: Understanding the curvilinear relationship between charismatic personality and leader effectiveness."*** *Journal of Personality and Social Psychology* 114(1): 110-130. <http://dx.doi.org/10.1037/pspp0000147>

This study advanced knowledge on charisma by (a) introducing a new personality-based model to conceptualize and assess charisma and by (b) investigating curvilinear relationships between charismatic personality and leader effectiveness. Moreover, we delved deeper into this curvilinear association by (c) examining moderation by the leader's level of adjustment and by (d) testing a process model through which the effects of charismatic personality on effectiveness are explained with a consideration of specific leader behaviors. Study 1 validated HDS charisma (Hogan Development Survey) as a useful trait-based measure of charisma. In Study 2 a sample of leaders (N = 306) were assessed in the context of a 360-degree development center. In line with the too-much-of-a-good-thing effect, an inverted U-shaped relationship between charismatic personality and observer-rated leader effectiveness was found, indicating that moderate levels are better than low or high levels of charisma. Study 3 (N = 287) replicated this curvilinear relationship and further illustrated the moderating role of leader adjustment, in such a way that the inflection point after which the effects of charisma turn negative occurs at higher levels of charisma when adjustment is high. Nonlinear mediation modeling further confirmed that strategic and operational leader behaviors fully mediate the curvilinear relationship. Leaders low on charisma are less effective because they lack strategic behavior; highly charismatic leaders are less effective because they lack operational behavior. In sum, this work provides insight into the dispositional nature of charisma and uncovers the processes through which and conditions under which leader charisma translates into (in)effectiveness.

Weidman, A. C., J. T. Cheng, et al. (2018). ***"The psychological structure of humility."*** *Journal of Personality and Social Psychology* 114(1): 153-178. <http://dx.doi.org/10.1037/pspp0000112>

Psychological inquiry into humility has advanced considerably over the past decade, yet this literature suffers from 2 notable limitations. First, there is no clear consensus among researchers about what humility is, and conceptualizations vary considerably across studies. Second, researchers have uniformly operationalized humility as a positive, socially desirable construct, while dismissing evidence from lay opinion and theological and philosophical traditions suggesting that humility may also have a darker side. To redress these issues, we conducted the first comprehensive, bottom-up analysis of the psychological structure of humility. Here we report 5 studies (total N = 1,479) that involve: (a) cluster analysis and categorization of humility-related words, generated by both lay persons and academic experts; (b) exploratory and confirmatory factor analyses of momentary and dispositional humility experiences; and (c) experimental induction of a momentary humility experience. Across these studies, we found converging evidence that humility can take 2 distinct forms, which we labeled "appreciative" and "self-abasing" humility. Appreciative humility tends to be elicited by personal success, involve action tendencies oriented toward celebrating others, and is positively associated with dispositions such as authentic pride, guilt, and prestige-based status. In contrast, self-abasing humility tends to be elicited by personal failure, involves negative self-evaluations and action tendencies oriented toward hiding from others' evaluations, and is associated with dispositions such as shame, low self-esteem, and submissiveness. Together, these findings provide a systematic and empirically grounded understanding of humility.

Wiese, C. W., L. Kuykendall, et al. (2018). **"Get active? A meta-analysis of leisure-time physical activity and subjective well-being."** *The Journal of Positive Psychology* 13(1): 57-66. <https://doi.org/10.1080/17439760.2017.1374436>

National time use data shows that working adults typically spend their leisure time in passive activities (e.g. watching television), which may detrimentally impact worker well-being. While leisure time physical activity (LTPA) can be strenuous, it likely facilitates detachment from work demands, promotes a wide range of psychological needs, and instigates physiological mechanisms, which in turn can lead to higher worker well-being. In this paper, we conducted a systematic review to quantitatively synthesize the strength of effects between LTPA and subjective well-being (SWB; positive affect, negative affect, life satisfaction). We found that LTPA is associated with both positive affect ( $k = 7$ ,  $n = 2,107$ ,  $r = 0.21$ ) and life satisfaction ( $k = 7$ ;  $n = 2544$ ;  $r = 0.12$ ), but not with negative affect ( $k = 6$ ;  $n = 2033$ ;  $r = ?0.05$ ). Our results provide evidence for the importance of engaging in LTPA as a way of promoting SWB.

Wille, B., B. M. Wiernik, et al. (2018). **"Personality characteristics of male and female executives: Distinct pathways to success?"** *Journal of Vocational Behavior*. <http://www.sciencedirect.com/science/article/pii/S0001879118300228>

It is widely believed that female and male leaders have fundamentally different characteristics and styles, which are thought to explain why organizations with more gender-diverse top management teams perform somewhat better. Unfortunately, few studies have concretely specified such differences or examined whether men and women in leadership roles, particularly executives, indeed differ on core psychological characteristics such as personality traits. Drawing on three alternative perspectives on the roles of personality and gender in leadership ascendancy, this study (a) examined whether men and women are more similar among executives than among non-executive employees, and (b) tested whether similar traits distinguish executives from lower-level employees across genders. Data were from a large ( $N = 577$ ) sample of European executives (434 male, 143 female) and 52,139 non-executive employees (34,496 male, 17,643 female) who completed high-stakes personality assessments. Results generally supported a gender-similarities perspective. Gender differences on leadership emergence-relevant traits (i.e., Conscientiousness, Emotional Stability, Extraversion) were smaller among executives compared to non-executives. Further, similar traits distinguished executives from non-executives across genders. Both male and female executives tend to demonstrate an archetypical "leader personality" focused on assertiveness, high-level strategic thinking, and decisiveness. However, results also showed that hierarchical level differences in personality were much more strongly pronounced among women than men. Implications for gender equity in organizational leadership are discussed. [See too interesting BPS Digest commentary at <https://tinyurl.com/ybhphfr7> ].

Zsok, F., M. Haucke, et al. (2017). **"What kind of love is love at first sight? An empirical investigation."** *Personal Relationships* 24(4): 869-885. <https://onlinelibrary.wiley.com/doi/abs/10.1111/per.12218>

Abstract Love at first sight (LAFS) is a commonly known phenomenon, but has barely been investigated scientifically. Major psychological theories of love predict that LAFS is marked by high passion. However, it could also be a memory confabulation construed by couples to enhance their relationship. We investigated LAFS empirically by assessing feelings of love at the moment participants met potential partners for the first time. Data were collected from an online study, a laboratory study, and three dating events. Experiences of LAFS were marked neither by high passion, nor by intimacy, nor by commitment. Physical attraction was highly predictive of reporting LAFS. We therefore suggest that LAFS is not a distinct form of love, but rather a strong initial attraction that some label as LAFS, either in the moment of first sight or retrospectively.