

40 healthy lifestyle & healthy aging abstracts **november '15 newsletter**

(Catone, Marwaha et al. 2015; Clarke, Karlov et al. 2015; Cruwys, Bevelander et al. 2015; DesJardins, Srivastava et al. 2015; Eisenbruch, Simmons et al. 2015; Foulk, Woolum et al. 2015; Fox and Moreland 2015; Foxman, Cronenwett et al. 2015; Gino, Kouchaki et al. 2015; Grant, Goldstein et al. 2015; Gurillo, Jauhar et al. 2015; Hafen, Allen et al. 2015; Haslam, Cruwys et al. 2015; Haslam and Montrose 2015; Hill, Griffiths et al. 2015; Horne, Muhlestein et al. 2015; Jonason, Strosser et al. 2015; Kammrath, McCarthy et al. 2015; Kandler, Kornadt et al. 2015; Kerns, Mathews et al. 2015; Kushlev, Dunn et al. 2015; Li, Liu et al. 2015; Loewenstein, Krishnamurti et al. 2015; Lv, Qi et al. 2015; Matchock 2015; McGrath, Saha et al. 2015; Muñoz-Reyes, Fernández et al. 2015; Okudaira, Kinari et al. 2015; Prather, Janicki-Deverts et al. 2015; Reutner, Hansen et al. 2015; Schäfer, Haun et al. 2015; Sherman, Lerner et al. 2015; Slemp, Kern et al. 2015; Smith, Jullian et al. 2015; Suvilehto, Glerean et al. 2015; Trautwein, Lütke et al. 2015; Valdmanis 2015; Yetish, Kaplan et al. 2015; Youngstedt, Goff et al. 2015; Zhai, Zhang et al. 2015)

Catone, G., S. Marwaha, et al. (2015). **"Bullying victimisation and risk of psychotic phenomena: Analyses of British national survey data."** *The Lancet Psychiatry* 2(7): 618-624.

<http://www.sciencedirect.com/science/article/pii/S2215036615000553>

Background Being bullied is an aversive experience with short-term and long-term consequences, and is incorporated in biopsychosocial models of psychosis. We used the 2000 and the 2007 British Adult Psychiatric Morbidity Surveys to test the hypothesis that bullying is associated with individual psychotic phenomena and with psychosis, and predicts the later emergence of persecutory ideation and hallucinations. Methods We analysed two nationally representative surveys of individuals aged 16 years or older in Great Britain (2000) and England (2007). Respondents were presented with a card listing stressful events to identify experiences of bullying over the entire lifespan. We assessed associations with the dependent variables persecutory ideation, auditory and visual hallucinations, and diagnosis of probable psychosis. All analyses were controlled for sociodemographic confounders, intelligence quotient (IQ), and other traumas. Findings We used data for 8580 respondents from 2000 and 7403 from 2007. Bullying was associated with presence of persecutory ideation and hallucinations, remaining so after adjustment for sociodemographic factors, IQ, other traumas, and childhood sexual abuse. Bullying was associated with a diagnosis of probable psychosis. If reported at baseline, bullying predicted emergence and maintenance of persecutory ideation and hallucinations during 18 months of follow-up in the 2000 survey. Controlling for other traumas and childhood sexual abuse did not affect the association between bullying and psychotic symptoms, but reduced the significance of the association with diagnosis of probable psychosis. Bullying was most strongly associated with the presence of concurrent persecutory ideation and hallucinations. Interpretation Bullying victimisation increases the risk of individual psychotic symptoms and of a diagnosis of probable psychosis. Early detection of bullying and use of treatments oriented towards its psychological consequences might ameliorate the course of psychosis. Funding None.

Clarke, I. E., L. Karlov, et al. (2015). **"The many faces of narcissism: Narcissism factors and their predictive utility."** *Personality and Individual Differences* 81: 90-95. <http://www.sciencedirect.com/science/article/pii/S0191886914006539>

Previous research has often portrayed narcissism as a unitary construct, however more recent research suggests it may be multidimensional. This study was conducted to examine the utility of two measures of narcissism – the Narcissistic Pathological Inventory and the Pathological Narcissism Inventory, in jointly assessing a broader range of narcissism content. The sample consisted of 220 undergraduate students. Eight factors were extracted from an exploratory analysis labeled: Contingent Self-Esteem, Grandiose Fantasy, Leadership/Authority, Devaluing the Self, Grandiose Exhibitionism, Manipulative, Entitlement, and Superiority. It was found that these narcissism factors had differing relationships with self-esteem, depression, anxiety, and stress. Although a higher-order factor structure did not have satisfactory fit, it is maintained that these eight factors reflect the two higher order dimensions of adaptive and maladaptive narcissism. It is recommended that future researchers construct their studies based on a multidimensional conceptualisation of narcissism, and use multiple narcissism measures.

Cruwys, T., K. E. Bevelander, et al. (2015). **"Social modeling of eating: A review of when and why social influence affects food intake and choice."** *Appetite* 86: 3-18. <http://www.sciencedirect.com/science/article/pii/S0195666314004383>

A major determinant of human eating behavior is social modeling, whereby people use others' eating as a guide for what and how much to eat. We review the experimental studies that have independently manipulated the eating behavior of a social referent (either through a live confederate or remotely) and measured either food choice or intake. Sixty-nine eligible experiments (with over 5800 participants) were identified that were published between 1974 and 2014. Speaking to the robustness of the modeling phenomenon, 64 of these studies have found a statistically significant modeling effect, despite substantial diversity in methodology, food type, social context and participant demographics. In reviewing the key findings from these studies, we conclude that there is limited evidence for a moderating effect of hunger, personality, age, weight or the presence of others (i.e., where the confederate is live vs. remote). There is inconclusive evidence for whether sex, attention, impulsivity and eating goals moderate modeling, and for whether modeling of food choice is as strong as modeling of food intake. Effects with substantial evidence were: modeling is increased when individuals desire to affiliate with the model, or perceive themselves to be similar to the model; modeling is attenuated (but still significant) for healthy-snack foods and meals such as breakfast and lunch, and modeling is at least partially mediated through behavioral mimicry, which occurs without conscious awareness. We discuss evidence suggesting that modeling is motivated by goals of both affiliation and uncertainty-reduction, and outline how these might be theoretically integrated. Finally, we argue for the importance of taking modeling beyond the laboratory and bringing it to bear on the important societal challenges of obesity and disordered eating.

DesJardins, N. M. L., S. Srivastava, et al. (2015). **"Who attains status? Similarities and differences across social contexts."** *Social Psychological and Personality Science* 6(6): 692-700. <http://spp.sagepub.com/content/6/6/692.abstract>

Informal groups form hierarchies and allocate social status in order to coordinate action and make collective decisions. Although researchers have identified characteristics of people who tend to get status, the extent to which these characteristics are context-dependent is unclear. In two studies, participants from the United States (N = 157) and Germany (N = 95) engaged in affiliative or competitive group interactions. We investigated whether the nature of the group's task moderated the relationship between status attainment and personality. As in previous research, we found that extraversion predicted status in both competitive and affiliative contexts. In contrast, agreeableness was only associated with status in affiliative contexts. These findings underscore the importance of examining the relationship between personality and social status in context.

Eisenbruch, A. B., Z. L. Simmons, et al. (2015). **"Lady in red: Hormonal predictors of women's clothing choices."** *Psychological Science* 26(8): 1332-1338. <http://pss.sagepub.com/content/26/8/1332.abstract>

Recent evidence supports the idea that women use red clothing as a courtship tactic, and results from one study further suggested that women were more likely to wear red on days of high fertility in their menstrual cycles. Subsequent studies provided mixed support for the cycle-phase effect, although all such studies relied on counting methods of cycle-phase estimation and used between-subjects designs. By comparison, in the study reported here, we employed frequent hormone sampling to more accurately assess ovulatory timing and used a within-subjects design. We found that women were more likely to wear red during the fertile window than on other cycle days. Furthermore, within-subjects fluctuations in the ratio of estradiol to progesterone statistically mediated the within-subjects shifts in red-clothing choices. Our results appear to represent the first direct demonstration of specific hormone measurements predicting observable changes in women's courtship-related behaviors. We also demonstrate the advantages of hormonal determination of ovulatory timing for tests of cycle-phase shifts in psychology or behavior.

Foull, T., A. Woolum, et al. (2015). **"Catching rudeness is like catching a cold: The contagion effects of low-intensity negative behaviors."** *J Appl Psychol.* <http://www.ncbi.nlm.nih.gov/pubmed/26121091>

In this article we offer a new perspective to the study of negative behavioral contagion in organizations. In 3 studies, we investigate the contagion effect of rudeness and the cognitive mechanism that explains this effect. Study 1 results show that low-intensity negative behaviors like rudeness can be contagious, and that this contagion effect can occur based on single episodes, that anybody can be a carrier, and that this contagion effect has second-order consequences for future interaction partners. In Studies 2 and 3 we explore in the laboratory the cognitive mechanism that underlies the negative behavioral contagion effect observed in Study 1. Specifically, we show that rudeness activates a semantic network of related concepts in individuals' minds, and that this activation influences individual's hostile behaviors. In sum, in these 3 studies we show that just like the common cold, common negative behaviors can spread easily and have significant consequences for people in organizations. (The excellent BPS Digest - <http://digest.bps.org.uk/2015/07/how-rudeness-spreads-like-contagion.html> - comments University of Florida researchers have finally put a long-standing hypothesis about rudeness to the test. The history to this is a study published in 1999 [pdf] that showed rudeness can create a vicious circle between individuals - if you're rude to someone, they're more likely to be rude back at you. What the authors of that paper also speculated though, and the new research investigates, is that an initial act of rudeness creates a "secondary spiral" where offended parties end up dumping on the innocent - meaning, effectively, that rudeness can spread like a contagion. For the new research, Trevor Foull and his team began by studying the interactions of 90 graduate students during negotiation training, which was conducted in pairs. After each negotiation, students rated the rudeness and likability of their negotiation partner and then played a series of nine trials that each involved splitting a cash sum with that same partner, either fairly, selfishly, or spitefully accepting a poor prize in order to deny the other any cash at all. Each participant then repeated the same procedure - negotiation followed by financial game - with ten more partners. To walk through the main finding, let's take a rude student called Alan. The data showed that if Bella interacted with rude Alan, she would find him less likeable and be likelier to spite him financially. But furthermore, in Bella's next negotiation session with Carl, he would more likely find her rude, unlikeable and in need of spiting. In other words, one person's rudeness could spread through many negotiation pairs. A second study suggested why rudeness has this effect. Here, during a "word-or-nonword" recognition task, the student participants were especially fast at recognising rude-related words, such as boorish or pushy, but only when the start of the experiment had been marred by the experimenter rudely humiliating a latecomer (actually another experimenter undercover). This shows how experiencing rudeness brings it to the front of our minds, which may colour how we interpret other people's behaviours, thus influencing our own behaviour. A final study demonstrates this principle, and highlights how these biased interpretations thrive in ambiguous situations. Again, one set of participants witnessed a rude event: a video of an altercation between co-workers in the fictional bookshop within which the tasks were set. Participants then completed a version of the cash allocation task used in the first study: this time sharing proceeds with a customer who'd emailed the bookshop with a query about an undelivered book. When the query was written in a neutral tone, participants were fair with the cash, but other participants who received an overtly hostile query chose to spite the customer in roughly one in four trials. Whether they'd experienced prior rudeness didn't sway these choices. A third query version was rude but ambiguously hostile: "I REALLY need those books. I hope this isn't asking too much!?????" When dealing with this ambiguous customer, participants who hadn't experienced rudeness gave them the benefit of the doubt, treating them comparably to the neutral customer. But participants who had viewed the earlier rude encounter opted for spite, as if they were dealing with a hostile customer. Serious workplace problems such as workplace bullying have been shown to act like contagion, systemically infecting organisations if unchecked. This study shows us that smaller behaviours can also make the rounds, and much like the common cold, require only one moment of exposure to kick things off. The difference is that we can't fully control whether we pass on a cold, but we always have a choice with rudeness: when Bella opts for civility, the secondary spiral spins its last.)

Fox, J. and J. J. Moreland (2015). **"The dark side of social networking sites: An exploration of the relational and psychological stressors associated with Facebook use and affordances."** *Computers in Human Behavior* 45: 168-176. <http://www.sciencedirect.com/science/article/pii/S0747563214007018>

Research on social media typically focuses on its benefits; considerably less is known about the dark side of social networking sites. Focus groups of adult Facebook users (N = 44) uncovered narratives surrounding individuals' negative psychological and relational experiences tied to the social networking site and its affordances (e.g., connectivity, visibility, accessibility, persistence, and social feedback). Thematic analysis rendered five themes regarding Facebook stressors: managing inappropriate or annoying content, being tethered, lack of privacy and control, social comparison and jealousy, and relationship tension and conflict. Results demonstrate that although Facebook users often experience negative emotions, they feel pressured to access the site frequently due to the fear of missing out and to keep up with relationship maintenance demands. Some participants reported privacy violations due to Facebook's visibility, connectivity, and persistence. These features also afforded constant social comparison to other network members, which triggered jealousy, anxiety, and other negative emotions. Relational turbulence occurred due to the public nature of conflict on Facebook. Many participants' responses revealed overarching contradictions: initially they claimed Facebook was inconsequential, yet later recounted significant stressful or hurtful events associated with Facebook. Our findings indicate some methods may not uncover the actual nature or scope of users' experiences.

Foxman, B., A. E. W. Cronenwett, et al. (2015). **"Cranberry juice capsules and urinary tract infection after surgery: Results of a randomized trial."** *American Journal of Obstetrics & Gynecology* 213(2): 194.e191-194.e198. <http://dx.doi.org/10.1016/j.ajog.2015.04.003>

OBJECTIVE: The risk of urinary tract infection (UTI) among women undergoing elective gynecological surgery during which a catheter is placed is high: 10-64% following catheter removal. We conducted the first randomized, double-blind, placebo-controlled trial of the therapeutic efficacy of cranberry juice capsules in preventing UTI after surgery. STUDY DESIGN:

We recruited patients from a single hospital between August 2011 and January 2013. Eligible participants were undergoing elective gynecological surgery that did not involve a fistula repair or vaginal mesh removal. One hundred sixty patients were randomized and received 2 cranberry juice capsules 2 times a day, equivalent to 2 8 ounce servings of cranberry juice, for 6 weeks after surgery or matching placebo. The primary endpoint was the proportion of participants who experienced clinically diagnosed and treated UTI with or without positive urine culture. Kaplan-Meier plots and log rank tests compared the 2 treatment groups. RESULTS: The occurrence of UTI was significantly lower in the cranberry treatment group compared with the placebo group (15 of 80 [19%] vs 30 of 80 [38%]; odds ratio, 0.38; 95% confidence interval, 0.19-0.79; P = .008). After adjustment for known confounders, including the frequency of intermittent self-catheterization in the postoperative period, the protective effects of cranberry remained (odds ratio, 0.42; 95% confidence interval, 0.18-0.94). There were no treatment differences in the incidence of adverse events, including gastrointestinal upset (56% vs 61% for cranberry vs placebo). CONCLUSION: Among women undergoing elective benign gynecological surgery involving urinary catheterization, the use of cranberry extract capsules during the postoperative period reduced the rate of UTI by half.

Gino, F., M. Kouchaki, et al. (2015). **"The moral virtue of authenticity: How inauthenticity produces feelings of immorality and impurity."** *Psychological Science* 26(7): 983-996. <http://pss.sagepub.com/content/26/7/983.abstract>

The five experiments reported here demonstrate that authenticity is directly linked to morality. We found that experiencing inauthenticity, compared with authenticity, consistently led participants to feel more immoral and impure. This link from inauthenticity to feeling immoral produced an increased desire among participants to cleanse themselves and to engage in moral compensation by behaving prosocially. We established the role that impurity played in these effects through mediation and moderation. We found that inauthenticity-induced cleansing and compensatory helping were driven by heightened feelings of impurity rather than by the psychological discomfort of dissonance. Similarly, physically cleansing oneself eliminated the relationship between inauthenticity and prosocial compensation. Finally, we obtained additional evidence for discriminant validity: The observed effects on desire for cleansing were not driven by general negative experiences (i.e., failing a test) but were unique to experiences of inauthenticity. Our results establish that authenticity is a moral state—that being true to thine own self is experienced as a form of virtue.

Grant, B. F., R. B. Goldstein, et al. (2015). **"Epidemiology of DSM-5 alcohol use disorder: Results from the national epidemiologic survey on alcohol and related conditions iii."** *JAMA Psychiatry* 72(8): 757-766. <http://dx.doi.org/10.1001/jamapsychiatry.2015.0584>

Importance National epidemiologic information from recently collected data on the new DSM-5 classification of alcohol use disorder (AUD) using a reliable, valid, and uniform data source is needed. Objective To present nationally representative findings on the prevalence, correlates, psychiatric comorbidity, associated disability, and treatment of DSM-5 AUD diagnoses overall and according to severity level (mild, moderate, or severe). Design, Setting, and Participants We conducted face-to-face interviews with a representative US noninstitutionalized civilian adult (≥18 years) sample (N = 36 309) as the 2012-2013 National Epidemiologic Survey on Alcohol and Related Conditions III (NESARC-III). Data were collected from April 2012 through June 2013 and analyzed in October 2014. Main Outcomes and Measures Twelve-month and lifetime prevalences of AUD. Results Twelve-month and lifetime prevalences of AUD were 13.9% and 29.1%, respectively. Prevalence was generally highest for men (17.6% and 36.0%, respectively), white (14.0% and 32.6%, respectively) and Native American (19.2% and 43.4%, respectively), respondents, and younger (26.7% and 37.0%, respectively) and previously married (11.4% and 27.1%, respectively) or never married (25.0% and 35.5%, respectively) adults. Prevalence of 12-month and lifetime severe AUD was greatest among respondents with the lowest income level (1.8% and 1.5%, respectively). Significant disability was associated with 12-month and lifetime AUD and increased with the severity of AUD. Only 19.8% of respondents with lifetime AUD were ever treated. Significant associations were found between 12-month and lifetime AUD and other substance use disorders, major depressive and bipolar I disorders, and antisocial and borderline personality disorders across all levels of AUD severity, with odds ratios ranging from 1.2 (95% CI, 1.08-1.36) to 6.4 (95% CI, 5.76-7.22). Associations between AUD and panic disorder, specific phobia, and generalized anxiety disorder were modest (odds ratios ranged from 1.2 (95% CI, 1.01-1.43) to 1.4 (95% CI, 1.13-1.67) across most levels of AUD severity). Conclusions and Relevance Alcohol use disorder defined by DSM-5 criteria is a highly prevalent, highly comorbid, disabling disorder that often goes untreated in the United States. The NESARC-III data indicate an urgent need to educate the public and policy makers about AUD and its treatment alternatives, to destigmatize the disorder, and to encourage those who cannot reduce their alcohol consumption on their own, despite substantial harm to themselves and others, to seek treatment.

Gurillo, P., S. Jauhar, et al. (2015). **"Does tobacco use cause psychosis? Systematic review and meta-analysis."** *The Lancet Psychiatry* 2(8): 718-725. <http://www.sciencedirect.com/science/article/pii/S2215036615001522>

Background Although the association between psychotic illness and cigarette smoking is well known, the reasons are unclear why people with psychosis are more likely to smoke than are the general population. We aimed to test several hypotheses. First, that daily tobacco use is associated with an increased risk of psychotic illness in both case-control and prospective studies. Second, that smoking is associated with an earlier age at onset of psychotic illness. Finally, that an earlier age at initiation of smoking is associated with an increased risk of psychosis. We also aimed to derive an estimate of the prevalence of smoking in patients presenting with their first episode of psychosis. Methods We searched Embase, Medline, and PsycINFO and selected observational studies in which rates of smoking were reported in people with psychotic disorders, compared with controls. We calculated the weighted mean difference for age at onset of psychosis and age at initiation of smoking. For categorical outcomes, we calculated odds ratios from cross-sectional studies and risk ratios from prospective studies. Findings Of 3717 citations retrieved, 61 studies comprising 72 samples met inclusion criteria. The overall sample included 14 555 tobacco users and 273 162 non-users. The prevalence of smoking in patients presenting with their first episode of psychosis was 0.57 (95% CI 0.52-0.62; p<0.0001). In case-control studies, the overall odds ratio for the first episode of psychosis in smokers versus non-smokers was 3.22 (95% CI 1.63-6.33), with some evidence of publication bias (Egger's test p=0.018, Begg's test p=0.007). For prospective studies, we calculated an overall relative risk of new psychotic disorders in daily smokers versus non-smokers of 2.18 (95% CI 1.23-3.85). Daily smokers developed psychotic illness at an earlier age than did non-smokers (weighted mean difference -1.04 years, 95% CI -1.82 to -0.26). Those with psychosis started smoking at a non-significantly earlier age than did healthy controls (-0.44 years, 95% CI -1.21 to 0.34). Interpretation Daily tobacco use is associated with increased risk of psychosis and an earlier age at onset of psychotic illness. The possibility of a causal link between tobacco use and psychosis merits further examination. Funding NIHR Maudsley Biomedical Research Centre.

Hafen, C. A., J. P. Allen, et al. (2015). **"Conflict with friends, relationship blindness, and the pathway to adult disagreeableness."** *Personality and Individual Differences* 81: 7-12. <http://www.sciencedirect.com/science/article/pii/S0191886915000434>

The ability to form and maintain relationships with friends and romantic partners is a major developmental task for adolescents. Disagreeable youth are likely to struggle with this task, yet little is known about how they maintain their

oppositional style from adolescence to adulthood. The current study examines the long-term implications of disagreeableness in a diverse sample of 164 adolescents assessed repeatedly across a 10-year period along with their friends and romantic partners. Disagreeableness at age 14 and 15 was assessed in observation with friends. Disagreeableness was then examined as a predictor of both future relationship quality with friends at age 16 and romantic relationships at age 21. The results indicate that although disagreeable youth do not report any relationship struggles, both their friends and romantic partners see their relationships as being low in quality. Findings suggest a developmental process by which disagreeable adolescents maintain their oppositional style through a mechanism of relationship blindness, as they simply are unable to see the relationship issues that their friends and partners clearly perceive.

Haslam, C., T. Cruwys, et al. (2015). **"Group ties protect cognitive health by promoting social identification and social support."** *Journal of Aging and Health*. <http://jah.sagepub.com/content/early/2015/06/09/0898264315589578.abstract>

Objective: Social relationships are protective of cognitive health as we age and recent findings show that social group ties (e.g., with community and peer groups) are especially important. The present research examines this relationship further to explore (a) the contribution of group, relative to interpersonal, ties and (b) underlying mechanism. Method: Two cross-sectional survey studies were conducted. Study 1 was conducted online (N = 200) and Study 2 involved face-to-face interviews (N = 42). Results: The findings confirmed group ties as a stronger predictor of cognitive health than individual ties. It also supported our proposed sequential mediation model suggesting that the benefits of group ties arise from their capacity to enhance a sense of shared social identification and this, in turn, provides the basis for effective social support. Discussion: Both studies provided evidence consistent with claims that group ties were especially beneficial because they cultivated social identification that provided the foundation for social support.

Haslam, C. and V. T. Montrose (2015). **"Should have known better: The impact of mating experience and the desire for marriage upon attraction to the narcissistic personality."** *Personality and Individual Differences* 82: 188-192. <http://www.sciencedirect.com/science/article/pii/S019188691500210X>

Narcissistic males do not make good romantic partners. Narcissistic males lack commitment, engage in manipulative game-playing and are unfaithful. Despite this, they are still desired by females. Females value different traits in short-term and long-term partners. Previous mate sampling experience is also important to facilitate mate assessment. This study aimed to determine whether amongst young adult heterosexual females; their mate sampling experience and desire for marriage influenced their attraction to narcissistic personality traits in a potential mate. British females aged 18–28 provided information on past mating experience, future desire for marriage and rated their agreement with 20 statements relating to the extent that they found narcissistic personality traits attractive in a potential mate. Females with greater mating experience and those desiring marriage were more attracted to the narcissistic male personality. The narcissistic personality, whilst having many negative qualities, possesses qualities associated with status and resource provision. These traits are desirable in short and long-term mating contexts. Despite future long-term mating desires which are unlikely to be achieved with a narcissistic male and possession of substantial mate sampling experience, females view the narcissistic male as a suitable partner: a testament to the success of the narcissistic personality in facilitating short-term mating.

Hill, E. M., F. E. Griffiths, et al. (2015). **"Spreading of healthy mood in adolescent social networks."** *Proceedings of the Royal Society of London B: Biological Sciences* 282(1813). <http://rspb.royalsocietypublishing.org/royprsb/282/1813/20151180.full.pdf>

Depression is a major public health concern worldwide. There is evidence that social support and befriending influence mental health, and an improved understanding of the social processes that drive depression has the potential to bring significant public health benefits. We investigate transmission of mood on a social network of adolescents, allowing flexibility in our model by making no prior assumption as to whether it is low mood or healthy mood that spreads. Here, we show that while depression does not spread, healthy mood among friends is associated with significantly reduced risk of developing and increased chance of recovering from depression. We found that this spreading of healthy mood can be captured using a non-linear complex contagion model. Having sufficient friends with healthy mood can halve the probability of developing, or double the probability of recovering from, depression over a 6–12-month period on an adolescent social network. Our results suggest that promotion of friendship between adolescents can reduce both incidence and prevalence of depression.

Horne, B. D., J. B. Muhlestein, et al. (2015). **"Health effects of intermittent fasting: Hormesis or harm? A systematic review."** *The American Journal of Clinical Nutrition* 102(2): 464-470. <http://ajcn.nutrition.org/content/102/2/464.abstract>

Background: Intermittent fasting, alternate-day fasting, and other forms of periodic caloric restriction are gaining popularity in the lay press and among animal research scientists. Whether clinical evidence exists for or is strong enough to support the use of such dietary regimens as health interventions is unclear. Objective: This review sought to identify rigorous, clinically relevant research studies that provide high-quality evidence that therapeutic fasting regimens are clinically beneficial to humans. Design: A systematic review of the published literature through January 2015 was performed by using sensitive search strategies to identify randomized controlled clinical trials that evaluated the effects of fasting on either clinically relevant surrogate outcomes (e.g., weight, cholesterol) or actual clinical event endpoints [e.g., diabetes, coronary artery disease (CAD)] and any other studies that evaluated the effects of fasting on clinical event outcomes. Results: Three randomized controlled clinical trials of fasting in humans were identified, and the results were published in 5 articles, all of which evaluated the effects of fasting on surrogate outcomes. Improvements in weight and other risk-related outcomes were found in the 3 trials. Two observational clinical outcomes studies in humans were found in which fasting was associated with a lower prevalence of CAD or diabetes diagnosis. No randomized controlled trials of fasting for clinical outcomes were identified. Conclusions: Clinical research studies of fasting with robust designs and high levels of clinical evidence are sparse in the literature. Whereas the few randomized controlled trials and observational clinical outcomes studies support the existence of a health benefit from fasting, substantial further research in humans is needed before the use of fasting as a health intervention can be recommended.

Jonason, P. K., G. L. Strosser, et al. (2015). **"Valuing myself over others: The dark triad traits and moral and social values."** *Personality and Individual Differences* 81: 102-106. <http://www.sciencedirect.com/science/article/pii/S0191886914006254>

In samples from America and Germany (N = 1353), we examined how the Dark Triad traits related to different value systems as measured by Moral Foundations and Social Values. Psychopathy was linked to diminished concerns for all Moral Foundations, Machiavellianism was linked to a moral flexibility, and narcissism was linked to a socially desirable form of morality. Machiavellianism and psychopathy scores were associated with a devaluing of collective interests, whereas narcissism was associated with a valuing of individual interests through the value of Self-Enhancement. Individual differences in a variety of values mediated part of the sex differences in the Dark Triad traits. We contend that what makes the Dark Triad traits unique and interesting is that they share a unique complex of values that might run counter to societal expectations for selflessness.

Kammrath, L. K., M. H. McCarthy, et al. (2015). **"Picking one's battles: How assertiveness and unassertiveness abilities are associated with extraversion and agreeableness."** *Social Psychological and Personality Science* 6(6): 622-629. <http://spp.sagepub.com/content/6/6/622.abstract>

Assertive behavior is positively associated with trait extraversion and negatively associated with trait agreeableness. Are introverted and agreeable people simply unable to be highly assertive? Global assertiveness is, we argue, influenced by more than one interpersonal ability; it is affected by the ability to show high assertion but also by the ability to show low assertion. If assertiveness and unassertiveness abilities are distinct skills, the unassertiveness of an introverted person might occur for different reasons than the unassertiveness of an agreeable person and might in consequence manifest in different situations. To explore these possibilities, we looked at informant reports of participants' assertiveness and unassertiveness abilities (Study 1) and participants' if-then profiles of assertiveness behavior (Studies 2 and 3). The results suggested that introverted people are less assertive than extraverted people because they have lower assertiveness ability, whereas agreeable people are less assertive than disagreeable people because they have higher unassertiveness ability.

Kandler, C., A. E. Kornadt, et al. (2015). **"Patterns and sources of personality development in old age."** *Journal of Personality and Social Psychology* 109(1): 175-191. <http://psycnet.apa.org/journals/psp/109/1/175/>

Despite abundant evidence that personality development continues in adulthood, little is known about the patterns and sources of personality development in old age. We thus investigated mean-level trends and individual differences in change as well as the genetic and environmental sources of rank-order continuity and change in several personality traits (neuroticism, extraversion, openness, agreeableness, conscientiousness, perceived control, and affect intensity) and well-being. In addition, we analyzed the interrelation between perceived control and change in other personality traits as well as between change in personality traits and change in well-being. We analyzed data from older adult twins, aged 64–85 years at Time 1 (N = 410; 135 males and 275 females; 134 monozygotic and 63 dizygotic twin pairs), collected at 2 different time points about 5 years apart. On average, neuroticism increased, whereas extraversion, conscientiousness, and perceived control significantly decreased over time. Change in perceived control was associated with change in neuroticism and conscientiousness, pointing to particular adaptation mechanisms specific to old age. Whereas individual differences in personality traits were fairly stable due to both genetic and environmental sources, individual differences in change were primarily due to environmental sources (beyond random error) indicating plasticity in old age. Even though the average level of well-being did not significantly change over time, individual well-being tended to decrease with strongly increasing levels of neuroticism as well as decreasing extraversion, conscientiousness, and perceived control, indicating that personality traits predict well-being but not vice versa. We discuss implications for theory on personality development across the lifespan.

Kerns, K. A., B. L. Mathews, et al. (2015). **"Assessing both safe haven and secure base support in parent-child relationships."** *Attachment & Human Development* 17(4): 337-353. <http://dx.doi.org/10.1080/14616734.2015.1042487>

Although the attachment construct refers to a child's tendency to use an attachment figure both as a safe haven in times of distress as well as a secure base from which to explore, approaches to assessing attachment at older ages have focused on safe haven behavior. We tested modified versions of the Friends and Family Interview and the Security Scale Questionnaire to examine separately the correlates of safe haven and secure base support from parents. The main study (n = 107 children, 10-14-year-olds) included both interview and questionnaire assessments of safe haven and secure base support from mothers and fathers. The two methods converged in expected ways, and both showed associations with narrative coherence. Children reported greater safe haven support from mothers and greater secure base support from fathers, suggesting secure base support is a key aspect of father-child attachment. Both mother-child and father-child relationships were related to children's school adjustment and coping.

Kushlev, K., E. W. Dunn, et al. (2015). **"Higher income is associated with less daily sadness but not more daily happiness."** *Social Psychological and Personality Science* 6(5): 483-489. <http://spp.sagepub.com/content/6/5/483.abstract>

Although extensive previous research has explored the relationship between income and happiness, no large-scale research has ever examined the relationship between income and sadness. Yet, happiness and sadness are distinct emotional states, rather than diametric opposites, and past research points to the possibility that wealth may have a greater impact on sadness than happiness. Using data from a diverse cross section of the U.S. population (N = 12,291), we show that higher income is associated with experiencing less daily sadness, but has no bearing on daily happiness. This pattern of findings could not be explained by relevant demographics, stress, and people's daily time use. Although causality cannot be inferred from this correlational data set, the present findings point to the possibility that money may be a more effective tool for reducing sadness than enhancing happiness.

Li, F., X. Liu, et al. (2015). **"Fish consumption and risk of depression: A meta-analysis."** *Journal of Epidemiology and Community Health*. <http://jech.bmj.com/content/early/2015/08/21/jech-2015-206278.abstract>

Background The association between fish consumption and risk of depression is controversial. We performed a meta-analysis to evaluate the association. Methods A literature search was performed in PubMed, EMBASE and Web of Science database for all relevant studies up to March 2015. We pooled the relative risks (RRs) with 95% CIs from individual studies with random effects model, and conducted meta-regression to explore potential sources of heterogeneity. Publication bias was estimated by Egger's test and the funnel plot. Results A total of 26 studies involving 150 278 participants were included in the present meta-analysis. The pooled RR of depression for the highest versus lowest consumption of fish was 0.83 (95% CI 0.74 to 0.93). The findings remained significant in the cohort studies (RR=0.84, 95% CI 0.75 to 0.94, n=10) as well as in the cross-sectional studies (RR=0.82, 95% CI 0.68 to 1.00, n=16). When men and women were analysed separately, a significant inverse association was also observed. There was no evidence of publication bias. Conclusions This meta-analysis indicates that high-fish consumption can reduce the risk of depression.

Loewenstein, G., T. Krishnamurti, et al. (2015). **"Does increased sexual frequency enhance happiness?"** *Journal of Economic Behavior & Organization* 116: 206-218. <http://www.sciencedirect.com/science/article/pii/S0167268115001316>

(Available in free full text) Prior research observing a positive correlation between happiness and sexual frequency has not been able to determine whether increased frequency leads, causally, to an increase in happiness. We present results from the first experimental study to address the question of causality. We recruited couples and randomly assigned half to double their frequency of intercourse. We find that increased frequency does not lead to increased happiness, perhaps because it leads to a decline in wanting for, and enjoyment of, sex. Introduction Considerable scientific research has observed a link between sexual frequency and well-being. One analysis of a representative sample of 16,000 adult Americans found that sexual frequency was a strong positive predictor of self-reported happiness (Blanchflower and Oswald, 2004). Similar results were also obtained with a sample of 3800 adults from China (Cheng and Smyth, 2015): Increased frequency (as well as higher reported quality of sex) was associated with greater happiness. In another study of 1000 women who reported daily how they allocated time between activities and how much they enjoyed those activities, sex was rated as the activity producing the greatest

amount of happiness (Kahneman et al., 2004; see, also Grimm et al., 2014). A nationally representative survey of 3432 Americans found that individuals with no sexual partners in the past 12 months had the lowest levels of happiness (Laumann et al., 1994). Individuals who report more active sexual relationships also report greater happiness within their relationship (Heiman et al., 2011 and Rosen and Bachmann, 2008). These and similar findings have led to numerous media recommendations to increase sexual frequency. Yet all of the work on the link between sexual frequency and happiness has been correlational, making it impossible to infer a causal link between the two, let alone determine which way the causality runs. Although it seems plausible that sex could have beneficial effects on happiness, it is equally plausible that happiness affects sex, or that some third variable, such as health, affects both. As Blanchflower and Oswald (2004, p. 394) note, "solving the endogeneity problem – working out whether sex causes happiness or causality runs in the reverse direction – will be particularly difficult here." We present findings from a study intended to meet the challenge posed by Blanchflower and Oswald – to test whether sexual frequency has a causal effect on happiness. We recruited couples who were willing to change their patterns of sexual behavior, and randomly assigned half to be asked to double their sexual intercourse frequency. Although we were successful in increasing frequency among those asked to do so, we did not find that increasing sexual frequency improved happiness. We do not conclude, however, that there is no causal relationship running from sexual frequency to happiness. While there very well may be a causal relationship between sexual frequency and happiness, our experimental manipulation of frequency had an unintended adverse effect on the quality of sex. We exploit the richness of our dataset to explore possible reasons for this perverse and unintended effect ... Discussion The current study suffers from significant limitations – most notably the lack of balance between the treatment arms and the non-representative nature of couples in the sample (given that they were recruited with the stipulation that they should be ready to alter their patterns of sexual behavior). However, it is the first study, to the best of our knowledge, to attempt to solve the endogeneity problem lamented by Blanchflower and Oswald (2004) in their study examining the positive relationship between sexual frequency and happiness – i.e., to assess whether increased frequency really does lead to greater happiness. Moreover, the main finding is surprising: Contrary to what one would expect if the causal story running from sexual frequency to happiness were true, we observed a weak negative impact of inducing people to have more sex on mood. Why did the increased-sex treatment have a negative impact on wanting, liking and mood? The fact that the greatest negative effect was on mood items relating to energy might seem to suggest that couples were more tired out, but if this were the case then we should have observed a negative relationship between mood and frequency, which we did not. Nor did controlling for frequency reduce the estimated effect of the experimental manipulation on mood or wanting or liking for sex; it was the experimental manipulation that had an adverse impact, and this negative impact did not operate through its actual effect on couples' behavior. None of this supports the idea that the perverse effect of the increased-sex manipulation on happiness resulted from it pushing people beyond their happiness-maximizing level of frequency. Nor do the data support the idea that it was the burden of the expectation that one should have more sex – unmet by some couples – that had a negative impact on individuals' happiness and desire for and enjoyment of sex. Rather, the evidence presented here seems to be most consistent with the idea that the directive, in the treatment condition, to have more sex affected the couples' intrinsic motivation to have sex. Perhaps being in the experimental treatment changed couple members' construal of sex, from a voluntary activity engaged in for pleasure to a duty, engaged in at the behest of the experimenter. Consistent with the latter account, numerous studies (e.g., Pepe and Byrne, 1991) have found declines in sexual satisfaction among couples engaged in infertility treatment. With the focus on timing sex to match the ovulation cycle, infertility treatment may transform sex from an activity driven by desire to an instrumental activity driven by the desire to procreate. Although field experiments are often lauded as achieving high levels of external validity, the current experiment helps to shed light on ways that they can fall short. Consider, for example, the Moving to Opportunity study (e.g., Ludwig et al., 2013) in which families living in poor neighborhoods were induced, by contingent rental subsidies, to move to higher income neighborhoods. Many prior correlational studies had observed a strong positive relationship between neighborhood affluence and economic, educational and social outcomes. Randomly assigning people to change neighborhoods, it seemed, could determine whether the relationship was causal. However, that study, like the current study, produced an unexpected finding: boys were adversely affected by the move. It would be a mistake to conclude from this, however, that advantaged neighborhoods are bad for boys. The Moving to Opportunity study ultimately answered a different and narrower question than the one it set out to answer, namely, the effect of uprooting families living in poor neighborhoods and relocating them to more affluent neighborhoods. Similarly, this study answered a different question from the one it set out to address; it addresses how requesting a couple to have more sex affects happiness, wanting and enjoyment, but not whether the naturalistically occurring relationship between sexual frequency and these variables is causal. This narrower question is not without interest. Several popular self-help books (e.g. Just Do It: How One Couple Turned Off the TV and Turned On their Sex Lives for 101 Days (No Excuses!) and 365 Nights: a Memoir of Intimacy) and even religious leaders (see: <http://www.nytimes.com/2008/11/24/us/24sex.html>) have issued public challenges to couples to increase their sexual frequency based on the assumption that doing so would improve relationship quality (and presumably happiness). If couples feel pressured by such directives to increase their sexual frequency, it is quite possible that doing so would have quite a different effect on their happiness and relationship quality than that assumed by the advocates of increased sex. In contrast, interventions that lured couples into having more sex, e.g., by providing travel to new locations that broke routines, babysitting, or retreats in elegant hotel rooms, rather than directives to have more sex, might have a higher chance of producing the hoped-for positive causal relationship between frequency, happiness and relationship quality. The current paper contributes to an area of research that is difficult to explore, due to difficulties of funding, recruitment, and the general sensitivity of the topic. The question of whether increased sexual frequency leads to increased happiness still lacks a definitive answer, but the key to answering it has been identified for future researchers: Sexual frequency needs to be increased via experimental manipulations that increase wanting for sex, rather than via a direct request to do so.

Lv, J., L. Qi, et al. (2015). **"Consumption of spicy foods and total and cause specific mortality: Population based cohort study."** *BMJ* 351: h3942. <http://www.bmj.com/bmj/351/bmj.h3942.full.pdf>

Objective To examine the associations between the regular consumption of spicy foods and total and cause specific mortality. Design Population based prospective cohort study. Setting China Kadoorie Biobank in which participants from 10 geographically diverse areas across China were enrolled between 2004 and 2008. Participants 199 293 men and 288 082 women aged 30 to 79 years at baseline after excluding participants with cancer, heart disease, and stroke at baseline. Main exposure measures Consumption frequency of spicy foods, self reported once at baseline. Main outcome measures Total and cause specific mortality. Results During 3 500 004 person years of follow-up between 2004 and 2013 (median 7.2 years), a total of 11 820 men and 8404 women died. Absolute mortality rates according to spicy food consumption categories were 6.1, 4.4, 4.3, and 5.8 deaths per 1000 person years for participants who ate spicy foods less than once a week, 1 or 2, 3 to 5, and 6 or 7 days a week, respectively. Spicy food consumption showed highly consistent inverse associations with total mortality among both men and women after adjustment for other known or potential risk factors. In the whole cohort, compared with those who ate spicy foods less than once a week, the adjusted hazard ratios for death were 0.90 (95% confidence interval 0.84 to 0.96), 0.86 (0.80 to 0.92), and 0.86 (0.82 to 0.90) for those who ate spicy food 1 or 2, 3 to 5, and 6 or 7 days a week, respectively. Compared with those who ate spicy foods less than once a week, those who consumed spicy foods 6 or 7 days a week showed a 14% relative risk reduction in total mortality. The inverse association between spicy food consumption and total mortality was stronger in

those who did not consume alcohol than those who did ($P=0.033$ for interaction). Inverse associations were also observed for deaths due to cancer, ischemic heart diseases, and respiratory diseases. Conclusion In this large prospective study, the habitual consumption of spicy foods was inversely associated with total and certain cause specific mortality, independent of other risk factors of death.

Matchock, R. L. (2015). **"Pet ownership and physical health."** *Current Opinion in Psychiatry* 28(5): 386-392. http://journals.lww.com/co-psychiatry/Fulltext/2015/09000/Pet_ownership_and_physical_health.9.aspx

Purpose of review Pet ownership and brief human-animal interactions can serve as a form of social support and convey a host of beneficial psychological and physiological health benefits. This article critically examines recent relevant literature on the pet-health connection. Recent findings Cross-sectional studies indicate correlations between pet ownership and numerous aspects of positive health outcomes, including improvements on cardiovascular measures and decreases in loneliness. Quasi-experimental studies and better controlled experimental studies corroborate these associations and suggest that owning and/or interacting with a pet may be causally related to some positive health outcomes. Summary The value of pet ownership and animal-assisted therapy (AAT), as a nonpharmacological treatment modality, augmentation to traditional treatment, and healthy preventive behavior (in the case of pet ownership), is starting to be realized. However, more investigations that employ randomized controlled trials with larger sample sizes and investigations that more closely examine the underlying mechanism of the pet-health effect, such as oxytocin, are needed. Introduction It has been estimated that over 60% of American households[1] and approximately 50% of people from all developed countries[2] own at least one pet. Increasingly, the benefits associated with pet ownership, brief exposures to pets in various types of clinical and laboratory settings, and as an augmentation to traditional therapy, are starting to be realized. Human-animal interactions (HAI), or anthrozoology, can take the form of simple pet ownership or briefer interactions with animals including animal-assisted activities (AAA) where pets more casually interact with people with no specific therapeutic goals, or animal-assisted therapy (AAT) which involves trained animals and therapists with specific therapeutic goals.[3] Despite the increasing acceptance of AAT in a wide variety of settings and its putative efficacy based on anecdotal reports, systematic research support for its effectiveness has not been as strong. Studies are often limited by small sample sizes, correlational designs, lack of randomization, and participants and evaluators not being blind to interventions. The first meta-analysis of AAT identified moderate effect sizes for autism-spectrum symptoms, medical difficulties, behavioral problems, and emotional well being.[4] The first systematic article of AAT-randomized controlled trials published prior to 2012 suggested that ATT may be effective in the treatment of cancer and other terminal illnesses by improving mental states, diseases of impaired circulation, autism spectrum symptoms, and self-reported outcomes for patients with varied clinical conditions.[5] Also see Beetz et al.[6] and Cherniack and Cherniack[7] for excellent reviews of pet ownership and health. The purpose of the current article is to provide a critical review of relevant papers published approximately within the last 2 years in order to provide up-to-date information about pet ownership, including brief interactions with nonfamiliar pets, and physical and mental health. Studies are organized according to type of research design.

McGrath, J. J., S. Saha, et al. (2015). **"Psychotic experiences in the general population: A cross-national analysis based on 31 261 respondents from 18 countries."** *JAMA Psychiatry* 72(7): 697-705. <http://dx.doi.org/10.1001/jamapsychiatry.2015.0575>

Importance Community-based surveys find that many otherwise healthy individuals report histories of hallucinations and delusions. To date, most studies have focused on the overall lifetime prevalence of any of these psychotic experiences (PEs), which might mask important features related to the types and frequencies of PEs.Objective To explore detailed epidemiologic information about PEs in a large multinational sample.Design, Setting, and Participants We obtained data from the World Health Organization World Mental Health Surveys, a coordinated set of community epidemiologic surveys of the prevalence and correlates of mental disorders in representative household samples from 18 countries throughout the world, from 2001 through 2009. Respondents included 31 261 adults (18 years and older) who were asked about lifetime and 12-month prevalence and frequency of 6 types of PEs (2 hallucinatory experiences and 4 delusional experiences). We analyzed the data from March 2014 through January 2015.Main Outcomes and Measures Prevalence, frequency, and correlates of PEs.Results Mean lifetime prevalence (SE) of ever having a PE was 5.8% (0.2%), with hallucinatory experiences (5.2% [0.2%]) much more common than delusional experiences (1.3% [0.1%]). More than two-thirds (72.0%) of respondents with lifetime PEs reported experiencing only 1 type. Psychotic experiences were typically infrequent, with 32.2% of respondents with lifetime PEs reporting only 1 occurrence and 31.8% reporting only 2 to 5 occurrences. We found a significant relationship between having more than 1 type of PE and having more frequent PE episodes (Cochran-Armitage $z = -10.0$; $P < .001$). Lifetime prevalence estimates (SEs) were significantly higher among respondents in middle- and high-income countries than among those in low-income countries (7.2% [0.4%], 6.8% [0.3%], and 3.2% [0.3%], respectively; χ^2 range, 7.1-58.2; $P < .001$ for each) and among women than among men (6.6% [0.2%] vs 5.0% [0.3%]; $\chi^2_1 = 16.0$; $P < .001$). We found significant associations with lifetime prevalence of PEs in the multivariate model among nonmarried compared with married respondents ($\chi^2_2 = 23.2$; $P < .001$) and among respondents who were not employed ($\chi^2_4 = 10.6$; $P < .001$) and who had low family incomes ($\chi^2_3 = 16.9$; $P < .001$).Conclusions and Relevance The epidemiologic features of PEs are more nuanced than previously thought. Research is needed that focuses on similarities and differences in the predictors of the onset, course, and consequences of distinct PEs.

Muñoz-Reyes, J. A., A. M. Fernández, et al. (2015). **"Fighting ability influences mate value in late adolescent men."** *Personality and Individual Differences* 80: 46-50. <http://www.sciencedirect.com/science/article/pii/S0191886915001348>

Several studies have demonstrated the relationship between handgrip strength (HGS) and fighting ability in men, which is a relevant trait for intrasexual competition to increase the probability of obtaining a mate. However, few studies have determined a relationship between fighting ability and men's self-perceived capacity to find, attract and retain a mate. This capacity is a complex compound of several traits that evolutionary psychology has called mate value. In the present study, in a population of late adolescent men from Chile ($M \pm SD = 16.94 \pm .89$ years), we explored the relationship between fighting ability, estimated by both HGS and a self-perceived fighting ability questionnaire, and mate value, assessed with a self-perceived mate value components questionnaire. The results show a strong influence of fighting ability on mate value. This influence affects the subscales of "views from the opposite sex", "sociality" and "relationship history". However, we did not find an effect on the subscales of "wealth", "parenting" or "fear to failure". The relationship between mate value and fighting ability indicates that fighting ability is a relevant component in understanding men's reproductive behaviour, including intrasexual competition and intersexual selection. This effect was observed in adolescents, who have less mating experience than adults.

Okudaira, H., Y. Kinari, et al. (2015). **"Older sisters and younger brothers: The impact of siblings on preference for competition."** *Personality and Individual Differences* 82: 81-89. <http://www.sciencedirect.com/science/article/pii/S0191886915001609>

Psychology studies have long argued the possibility that sibling structure, such as birth order and the sex of siblings, shapes one's personality traits. One of the core issues involved is that of who rates subjects' personality traits in studies. The

present studies (N = 135 in Study 1, N = 232 in Study 2) surpassed the examinations performed in previous studies by obtaining information regarding one of the key personality traits, preference for competition, using a framework developed via experimental economics rather than subjective ratings. Despite the fact that the two studies involved different types of task, we consistently observed that older sisters exerted a significant impact on their younger siblings in both studies. In particular, having an older sister was negatively associated with men's competitive preferences. We also obtained suggestive evidence that having an older sister was positively associated with women's competitive preferences. Our results support sibling hypotheses from the perspective of experimental economics.

Prather, A. A., D. Janicki-Deverts, et al. (2015). **"Behaviorally assessed sleep and susceptibility to the common cold."** *Sleep*. <http://www.ncbi.nlm.nih.gov/pubmed/26118561>

STUDY OBJECTIVES: Short sleep duration and poor sleep continuity have been implicated in the susceptibility to infectious illness. However, prior research has relied on subjective measures of sleep, which are subject to recall bias. The aim of this study was to determine whether sleep, measured behaviorally using wrist actigraphy, predicted cold incidence following experimental viral exposure. **DESIGN, MEASUREMENTS, AND RESULTS:** A total of 164 healthy men and women (age range, 18 to 55 y) volunteered for this study. Wrist actigraphy and sleep diaries assessed sleep duration and sleep continuity over 7 consecutive days. Participants were then quarantined and administered nasal drops containing the rhinovirus, and monitored over 5 days for the development of a clinical cold (defined by infection in the presence of objective signs of illness). Logistic regression analysis revealed that actigraphy- assessed shorter sleep duration was associated with an increased likelihood of development of a clinical cold. Specifically, those sleeping <5 h (odds ratio [OR]= 4.50, 95% confidence interval [CI], 1.08-18.69) or sleeping between 5 to 6 h (OR = 4.24, 95% CI, 1.08-16.71) were at greater risk of developing the cold compared to those sleeping >7 h per night; those sleeping 6.01 to 7 h were at no greater risk (OR = 1.66; 95% CI 0.40-6.95). This association was independent of prechallenge antibody levels, demographics, season of the year, body mass index, psychological variables, and health practices. Sleep fragmentation was unrelated to cold susceptibility. Other sleep variables obtained using diary and actigraphy were not strong predictors of cold susceptibility. **CONCLUSIONS:** Shorter sleep duration, measured behaviorally using actigraphy prior to viral exposure, was associated with increased susceptibility to the common cold.

Reutner, L., J. Hansen, et al. (2015). **"The cold heart: Reminders of money cause feelings of physical coldness."** *Social Psychological and Personality Science* 6(5): 490-495. <http://spp.sagepub.com/content/6/5/490.abstract>

Mere reminders of money have been shown to cause socially "cold" behavior. Recent research suggests that the metaphor of "social coldness" is bodily grounded and thus linked to actual sensations of physical coldness. We therefore hypothesized that reminding individuals of money causes them to feel physically colder. This hypothesis was put to test in two studies, drawing on predictions from psychophysiological thermal perception. In Study 1, individuals who had been reminded of money perceived the air in the room as colder compared to a control group (an assimilation effect). Contrarily, in Study 2, they perceived water (a medium that was only momentarily experienced) as warmer compared to individuals not reminded of money (a contrast effect). Together these findings demonstrate that reminders of money cause sensations of actual physical coldness and add to the literature of both the psychological effects of money and human thermal perception.

Schäfer, M., D. B. M. Haun, et al. (2015). **"Fair is not fair everywhere."** *Psychological Science* 26(8): 1252-1260. <http://pss.sagepub.com/content/26/8/1252.abstract>

Distributing the spoils of a joint enterprise on the basis of work contribution or relative productivity seems natural to the modern Western mind. But such notions of merit-based distributive justice may be culturally constructed norms that vary with the social and economic structure of a group. In the present research, we showed that children from three different cultures have very different ideas about distributive justice. Whereas children from a modern Western society distributed the spoils of a joint enterprise precisely in proportion to productivity, children from a gerontocratic pastoralist society in Africa did not take merit into account at all. Children from a partially hunter-gatherer, egalitarian African culture distributed the spoils more equally than did the other two cultures, with merit playing only a limited role. This pattern of results suggests that some basic notions of distributive justice are not universal intuitions of the human species but rather culturally constructed behavioral norms.

Sherman, G. D., J. S. Lerner, et al. (2015). **"Perceiving others' feelings: The importance of personality and social structure."** *Social Psychological and Personality Science* 6(5): 559-569. <http://spp.sagepub.com/content/6/5/559.abstract>

Recent research has explored the relationship between social hierarchy and empathic accuracy—the ability to accurately infer other people's mental states. In the current research, we tested the hypothesis that, regardless of one's personal level of status and power, simply believing that social inequality is natural and morally acceptable (e.g., endorsing social dominance orientation, or SDO) would be negatively associated with empathic accuracy. In a sample of managers, a group for whom empathic accuracy is a valuable skill, empathic accuracy was lower for managers who possessed structural power and also for managers who endorsed social dominance, regardless of their structural power. Moreover, men were less empathically accurate than women, a relationship that may be explained by men's higher SDO and greater structural power. These findings suggest that for empathic abilities, it matters just as much what you think about social hierarchies as it does where you stand within them.

Slemp, G., M. Kern, et al. (2015). **"Workplace well-being: The role of job crafting and autonomy support."** *Psychology of Well-Being* 5(1): 7. <http://www.psywb.com/content/5/1/7>

(Free full text available) Studies have found that job crafting and employee well-being are correlated. Less is known, however, about the contextual variables that support or thwart job crafting within an organization. The present study examined perceived autonomy support as one such contextual factor. Working adults (N=250) completed a battery of measures on autonomy support, job crafting, and workplace well-being. A hypothesized model in which perceived autonomy support predicts job crafting, which in turn predicts workplace well-being was tested using structural equation modeling. The hypothesized model fit the data well; however, a competing model in which autonomy support and job crafting were separate, but correlated direct predictors of well-being provided a better fit to the data. Supplemental analyses suggested a synergistic relationship between job crafting and autonomy support in organizations, showing employees with the highest well-being did the most job crafting and experienced the highest amount of perceived autonomy support. Findings underscore the importance of both individual factors and contextual factors in supporting workplace well-being.

Smith, G. I., S. Julliard, et al. (2015). **"Fish oil-derived n-3 PUFA therapy increases muscle mass and function in healthy older adults."** *The American Journal of Clinical Nutrition* 102(1): 115-122. <http://ajcn.nutrition.org/content/102/1/115.abstract>

Background: Age-associated declines in muscle mass and function are major risk factors for an impaired ability to carry out activities of daily living, falls, prolonged recovery time after hospitalization, and mortality in older adults. New strategies that can slow the age-related loss of muscle mass and function are needed to help older adults maintain adequate performance

status to reduce these risks and maintain independence. Objective: We evaluated the efficacy of fish oil-derived n-3 (ω -3) PUFA therapy to slow the age-associated loss of muscle mass and function. Design: Sixty healthy 60–85-y-old men and women were randomly assigned to receive n-3 PUFA (n = 40) or corn oil (n = 20) therapy for 6 mo. Thigh muscle volume, handgrip strength, one-repetition maximum (1-RM) lower- and upper-body strength, and average power during isokinetic leg exercises were evaluated before and after treatment. Results: Forty-four subjects completed the study [29 subjects (73%) in the n-3 PUFA group; 15 subjects (75%) in the control group]. Compared with the control group, 6 mo of n-3 PUFA therapy increased thigh muscle volume (3.6%; 95% CI: 0.2%, 7.0%), handgrip strength (2.3 kg; 95% CI: 0.8, 3.7 kg), and 1-RM muscle strength (4.0%; 95% CI: 0.8%, 7.3%) (all P < 0.05) and tended to increase average isokinetic power (5.6%; 95% CI: -0.6%, 11.7%; P = 0.075). Conclusion: Fish oil-derived n-3 PUFA therapy slows the normal decline in muscle mass and function in older adults and should be considered a therapeutic approach for preventing sarcopenia and maintaining physical independence in older adults. This study was registered at clinicaltrials.gov as NCT01308957.

Suvilehto, J. T., E. Glerean, et al. (2015). **"Topography of social touching depends on emotional bonds between humans."** Proceedings of the National Academy of Sciences.

<http://www.pnas.org/content/early/2015/10/21/1519231112.abstract>

(Available in free full text) Significance: Touch is a powerful tool for communicating positive emotions. However, it has remained unknown to what extent social touch would maintain and establish social bonds. We asked a total of 1,368 people from five countries to reveal, using an Internet-based topographical self-reporting tool, those parts of their body that they would allow relatives, friends, and strangers to touch. These body regions formed relationship-specific maps in which the total area was directly related to the strength of the emotional bond between the participant and the touching person. Cultural influences were minor. We suggest that these relation-specific bodily patterns of social touch constitute an important mechanism supporting the maintenance of human social bonds. Abstract: Nonhuman primates use social touch for maintenance and reinforcement of social structures, yet the role of social touch in human bonding in different reproductive, affiliative, and kinship-based relationships remains unresolved. Here we reveal quantified, relationship-specific maps of bodily regions where social touch is allowed in a large cross-cultural dataset (N = 1,368 from Finland, France, Italy, Russia, and the United Kingdom). Participants were shown front and back silhouettes of human bodies with a word denoting one member of their social network. They were asked to color, on separate trials, the bodily regions where each individual in their social network would be allowed to touch them. Across all tested cultures, the total bodily area where touching was allowed was linearly dependent (mean r^2 = 0.54) on the emotional bond with the toucher, but independent of when that person was last encountered. Close acquaintances and family members were touched for more reasons than less familiar individuals. The bodily area others are allowed to touch thus represented, in a parametric fashion, the strength of the relationship-specific emotional bond. We propose that the spatial patterns of human social touch reflect an important mechanism supporting the maintenance of social bonds.

Trautwein, U., O. Lüdtke, et al. (2015). **"Using individual interest and conscientiousness to predict academic effort: Additive, synergistic, or compensatory effects?"** Journal of Personality and Social Psychology 109(1): 142-162.

<http://psycnet.apa.org/journals/psp/109/1/142/>

Although both conscientiousness and domain-specific interest are believed to be major determinants of academic effort, they have rarely been brought together in empirical studies. In the present research, it was hypothesized that both interest and conscientiousness uniquely predict academic effort and statistically interact with each other to predict academic effort. In 4 studies with 2,557, 415, 1,025, and 1,531 students, respectively, conscientiousness and interest meaningfully and uniquely predicted academic effort. In addition, conscientiousness interacted with interest in a compensatory pattern, indicating that conscientiousness is especially important when a student finds a school subject uninteresting and that domain-specific interest plays a particularly important role for students low in conscientiousness.

Valdmanis, V. G. (2015). **"Factors affecting well-being at the state level in the United States."** Journal of Happiness Studies 16(4): 985-997. <http://dx.doi.org/10.1007/s10902-014-9545-0>

United States (US) policy makers often rely on economic indicators in order to determine citizens' well-being. Authors of other research in the area of well-being have reported that well-being is a function of other factors beyond just income including health indicators such as physical and mental health, social interactions such as employment and productivity, and politics. Therefore, inclusion of these other factors would better capture variations in well-being. In this paper, well-being in each of the fifty states in the US is assessed using a mixed panel model approach (2009–2011) including typical economic and political measures. The findings from the empirical analysis reveal higher level of equality, as measured by the Gini coefficient, was the strongest indicator of well-being. Conversely, in states considered as politically conservative, an inverse relation was shown to exist between higher levels of state conservative politics and levels of average well-being by state. Finally, per capita income growth was difficult to measure as it related to well-being due to the fluctuations attributed to the recession of 2008. Therefore, state policies focused only on economic measures could not be verified whereas the income equality and/lower levels of income disparity would benefit the state population, as a whole, in terms of well-being.

Yetish, G., H. Kaplan, et al. (2015). **"Natural sleep and its seasonal variations in three pre-industrial societies."** Current Biology. <http://dx.doi.org/10.1016/j.cub.2015.09.046>

How did humans sleep before the modern era? Because the tools to measure sleep under natural conditions were developed long after the invention of the electric devices suspected of delaying and reducing sleep, we investigated sleep in three preindustrial societies [1, 2 & 3]. We find that all three show similar sleep organization, suggesting that they express core human sleep patterns, most likely characteristic of pre-modern era Homo sapiens. Sleep periods, the times from onset to offset, averaged 6.9–8.5 hr, with sleep durations of 5.7–7.1 hr, amounts near the low end of those industrial societies [4, 5, 6 & 7]. There was a difference of nearly 1 hr between summer and winter sleep. Daily variation in sleep duration was strongly linked to time of onset, rather than offset. None of these groups began sleep near sunset, onset occurring, on average, 3.3 hr after sunset. Awakening was usually before sunrise. The sleep period consistently occurred during the nighttime period of falling environmental temperature, was not interrupted by extended periods of waking, and terminated, with vasoconstriction, near the nadir of daily ambient temperature. The daily cycle of temperature change, largely eliminated from modern sleep environments, may be a potent natural regulator of sleep. Light exposure was maximal in the morning and greatly decreased at noon, indicating that all three groups seek shade at midday and that light activation of the suprachiasmatic nucleus is maximal in the morning. Napping occurred on <7% of days in winter and <22% of days in summer. Mimicking aspects of the natural environment might be effective in treating certain modern sleep disorders.

Youngstedt, S. D., E. E. Goff, et al. (2015). **"Has adult sleep duration declined over the last 50+ years?"** Sleep Medicine Reviews. <http://dx.doi.org/10.1016/j.smrv.2015.08.004>

The common assumption that population sleep duration has declined in the past few decades has not been supported by recent reviews, which have been limited to self-reported data. The aim of this review was to assess whether there has been a

reduction in objectively recorded sleep duration over the last 50+ years. The literature was searched for studies published from 1960-2013, which assessed objective sleep duration (TST) in healthy normal-sleeping adults. The search found 168 studies that met inclusion criteria, with 257 data points representing 6,052 individuals ages 18-88 years. Data were assessed by comparing the regression lines of age vs. TST in studies conducted between 1960-1989 vs. 1990-2013. Weighted regression analyses assessed the association of year of study with age-adjusted TST across all data points. Regression analyses also assessed the association of year of study with TST separately for 10-year age categories (e.g., ages 18-27 years), and separately for polysomnographic and actigraphic data, and for studies involving a fixed sleep schedule and participants' customary sleep schedules. Analyses revealed no significant association of sleep duration with study year. The results are consistent with recent reviews of subjective data, which have challenged the notion of a modern epidemic of insufficient sleep.

Zhai, L., Y. Zhang, et al. (2015). **"Sedentary behaviour and the risk of depression: A meta-analysis."** *British Journal of Sports Medicine* 49(11): 705-709. <http://bjsm.bmj.com/content/49/11/705.abstract>

Background Sedentary behaviour is associated with risk of depression. We review and quantitatively summarise the evidence from observational studies in a meta-analysis. **Methods** We searched the PubMed, Web of Knowledge, Chinese National Knowledge Infrastructure and Wanfang databases for observational studies related to the association of sedentary behaviour and depression risk up to 15 January 2014. Summary relative risks (RRs) were estimated by the use of a random effects model. **Results** Thirteen cross-sectional studies with 110 152 participants and 11 longitudinal studies with 83 014 participants were included in this meta-analysis. The summary RR of depression for the highest versus non-occasional/occasional sedentary behaviour was 1.25 (95% CI 1.16 to 1.35, I²=50.7%) for all included studies. The pooled RRs of depression for sedentary behaviour were 1.31 (95% CI 1.16 to 1.48) in cross-sectional studies and 1.14 (95% CI 1.06 to 1.21) in longitudinal studies. In subgroup analysis by different types of sedentary behaviour, the pooled RRs of depression were 1.13 (95% CI 1.06 to 1.21) for long-time TV viewing and 1.22 (95% CI 1.10 to 1.34) for prolonged computer or internet use. **Conclusions** This meta-analysis of observational studies indicates that sedentary behaviour is associated with increased risk of depression.