

36 positive psychology relevant abstracts **november '15 newsletter**

(Allan, Duffy et al. 2015; Crespo and Mesurado 2015; DesJardins, Srivastava et al. 2015; Fergusson, McLeod et al. 2015; Foulk, Woolum et al. 2015; Gino, Kouchaki et al. 2015; Haslam, Cruwys et al. 2015; Hawke 2015; Hill, Griffiths et al. 2015; Jonason, Strosser et al. 2015; Kammrath, McCarthy et al. 2015; Kandler, Kornadt et al. 2015; Killen and Macaskill 2015; Loewenstein, Krishnamurti et al. 2015; Lucas and Nordgren 2015; Manczak, DeLongis et al. 2015; Matchock 2015; Piper 2015; Rafnsson, Shankar et al. 2015; Raila, Scholl et al. 2015; Reutner, Hansen et al. 2015; Schäfer, Haun et al. 2015; Slemp, Kern et al. 2015; Stavrova and Ehlebracht 2015; Suldo, R. Minch et al. 2015; Suvilehto, Glerean et al. 2015; Tarr, Launay et al. 2015; Thomas, Bangen et al. 2015; Trautwein, Lüdtke et al. 2015; Valdmanis 2015; Veenhoven 2015; Wayment, Bauer et al. 2015; Wayment, Collier et al. 2015; Yalçın and Malkoç 2015; Yan and Bonanno 2015; Zuzanek and Zuzanek 2015)

Allan, B. A., R. D. Duffy, et al. (2015). **"Meaning in life and work: A developmental perspective."** *Journal of Positive Psychology* 10(4): 323-331. <http://dx.doi.org/10.1080/17439760.2014.950180>

This study examined linear and nonlinear relations between age and the presence and search for meaning in life and examined if these relations were moderated by the presence of meaning in work. Age did not significantly relate to the presence of meaning in life, but age had a significant, negative linear relation with the search for meaning in life. Moreover, work meaning moderated the quadratic relation between age and life meaning. Specifically, people high in work meaning demonstrated negative quadratic curves, with high life meaning during middle adulthood, and people low in work meaning had positive quadratic curves, with low life meaning during middle adulthood. Work meaning also moderated the linear relation between age and the search for meaning in life with people highest in work meaning showing the strongest negative relation between age and the search for meaning in life. Limitations and implications for future research are discussed.

Crespo, R. and B. Mesurado (2015). **"Happiness economics, eudaimonia and positive psychology: From happiness economics to flourishing economics."** *Journal of Happiness Studies* 16(4): 931-946. <http://dx.doi.org/10.1007/s10902-014-9541-4>

A remarkable current development, happiness economics focuses on the relevance of people's happiness in economic analyses. As this theory has been criticised for relying on an incomplete notion of happiness, this paper intends to support it with richer philosophical and psychological foundations. Specifically, it suggests that happiness economics should be based on Aristotle's philosophical eudaimonia concept and on a modified version of 'positive psychology' that stresses human beings' relational nature. First, this analysis describes happiness economics and its shortcomings. Next, it introduces Aristotle's eudaimonia and takes a look at positive psychology with this lens, elaborating on the need to develop a new approach that goes beyond the economics of happiness: the economics of flourishing. Finally, the paper specifies some possible socio-economic objectives of a eudaimonic economics of happiness.

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.

Fergusson, D. M., G. F. H. McLeod, et al. (2015). **"Life satisfaction and mental health problems (18 to 35 years)."** *Psychological Medicine* 45(11): 2427-2436. <http://dx.doi.org/10.1017/S0033291715000422>

Background Previous research has found that mental health is strongly associated with life satisfaction. In this study we examine associations between mental health problems and life satisfaction in a birth cohort studied from 18 to 35 years. Method Data were gathered during the Christchurch Health and Development Study, which is a longitudinal study of a birth cohort of 1265 children, born in Christchurch, New Zealand, in 1977. Assessments of psychiatric disorder (major depression, anxiety disorder, suicidality, alcohol dependence and illicit substance dependence) using DSM diagnostic criteria and life satisfaction were obtained at 18, 21, 25, 30 and 35 years. Results Significant associations ($p < 0.01$) were found between repeated measures of life satisfaction and the psychiatric disorders major depression, anxiety disorder, suicidality, alcohol dependence and substance dependence. After adjustment for non-observed sources of confounding by fixed effects, statistically significant associations ($p < 0.05$) remained between life satisfaction and major depression, anxiety disorder, suicidality and substance dependence. Overall, those reporting three or more mental health disorders had mean life satisfaction scores that were nearly 0.60 standard deviations below those without mental health problems. A structural equation model examined the direction of causation between life satisfaction and mental health problems. Statistically significant ($p < 0.05$) reciprocal associations were found between life satisfaction and mental health problems. Conclusions After adjustment for confounding, robust and reciprocal associations were found between mental health problems and life satisfaction. Overall, this study showed evidence that life satisfaction influences mental disorder, and that mental disorder influences life satisfaction.

Foulk, 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 Foulk 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.)

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.

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.

Hawke, L. (2015). **"Laughing like crazy stand up comedy peer support program for people with mental illness: Research results."** *Bipolar Disord* 17(S1): 40-41. http://dx.doi.org/10.1111/bdi.12306_31

Dr. Hawke will present the results of the formal research project assessing the impacts of Laughing Like Crazy. In a collaborative project between MDAO and academic partners at the University Health Network, Dr. Hawke led a mixed-methods research project evaluating the effects of the Laughing Like Crazy program. A total of 40 participants completed a series of questionnaires before and after the program and participated in focus group interviews. Among them, 30 (75%) completed the entire Laughing Like Crazy program. Participants reported extremely high rates of satisfaction, as well as statistically significant improvements on nearly every measure. Improvements included greater self-confidence, reduced anxiety and depression, and more frequent use of humour to deal with stressful situations. Furthermore, at the end of the program participants reported using humour in a more adaptive way and using less maladaptive humour. Focus group discussions revealed improved symptom management, personal development, a sense of achievement, a sense of community, and enjoyment of a very inspiring experience. In summary, MDAO's Laughing Like Crazy stand-up comedy training program has many positive effects for participants and is a unique, powerful recovery program in the MDAO suite of services. Based on these positive results, preliminary planning is under way to begin program dissemination to Ontario affiliate groups.

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.

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.

Killen, A. and A. Macaskill (2015). **"Using a gratitude intervention to enhance well-being in older adults."** *Journal of Happiness Studies* 16(4): 947-964. <http://dx.doi.org/10.1007/s10902-014-9542-3>

The increasingly ageing population includes a proportion of well older adults that may benefit from low-level psychological support to help maintain their wellbeing. A factor consistently regarded as integral to wellbeing is gratitude. The effect of a 'Three good things in life' gratitude intervention on hedonic and eudemonic wellbeing and perceived stress levels in non-clinically depressed older adults was examined. This intervention has not been evaluated with older adults previously. The duration of the intervention was 2 weeks and baseline, end of intervention and 30-day follow up measures were compared. The effects of online and paper delivery of the intervention were compared and differences in acceptability of the two routes examined. The daily positive events identified by participants were also analysed. Participants were 88 healthy community living adults aged 60 years or over. The intervention produced significant differences in eudemonic wellbeing as measured by flourishing from baseline to day 15 that was maintained at day 45. Significant increases in flourishing were evident from baseline to day 45. There were decreases in perceived stress from day 1 to day 15 but these were not maintained once the intervention ended. There were no significant differences between online and paper delivery of the intervention. This age group managed and many preferred online delivery, Gratitude diaries seem to be a cost-effective method of producing beneficial improvements in wellbeing for older adults.

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.

Lucas, B. J. and L. F. Nordgren (2015). **"People underestimate the value of persistence for creative performance."** *Journal of Personality and Social Psychology* 109(2): 232-243. <http://psycnet.apa.org/journals/psp/109/2/232/>

Across 7 studies, we investigated the prediction that people underestimate the value of persistence for creative performance. Across a range of creative tasks, people consistently underestimated how productive they would be while persisting (Studies 1–3). Study 3 found that the subjectively experienced difficulty, or disfluency, of creative thought accounted for persistence undervaluation. Alternative explanations based on idea quality (Studies 1–2B) and goal setting (Study 4) were considered and ruled out and domain knowledge was explored as a boundary condition (Study 5). In Study 6, the disfluency of creative thought reduced people's willingness to invest in an opportunity to persist, resulting in lower financial performance. This research demonstrates that persistence is a critical determinant of creative performance and that people may undervalue and underutilize persistence in everyday creative problem solving.

Manczak, E. M., A. DeLongis, et al. (2015). **"Does empathy have a cost? Diverging psychological and physiological effects within families."** *Health Psychology*. <http://psycnet.apa.org/psycinfo/2015-40297-001/>

Objective: Parental empathy is associated with a host of beneficial psychosocial outcomes for children. However, less is known about the effects of being empathic for parents. The current study tested the hypothesis that, although parental empathy may be beneficial to children both psychologically and physiologically, it may take a physiological toll on parents. Method: The current study examined psychological and physiological correlates of parental empathy in 247 parent-adolescent dyads. During a baseline laboratory visit, parents and adolescents provide blood samples from which markers of systemic inflammation, including interleukin 1-ra, interleukin 6, and C-reactive protein, were assayed. Parents completed self-report questionnaires of empathy, well-being, and self-esteem, and also reported on their child's emotion regulation. Following the laboratory visit, adolescents completed 2 weeks of daily diary reporting on their emotion regulation abilities. Results: In adolescents, parental

empathy was significantly associated with both better emotion regulation and with less systemic inflammation. For parents, being empathic was associated with greater self-esteem and purpose in life, but also with higher systemic inflammation. Conclusions: These findings reinforce the importance of simultaneously considering both psychological and physical health-related effects of psychosocial traits and suggests that empathy may have diverging effects across providers and recipients of empathy.

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.

Piper, A. (2015). **"Europe's capital cities and the happiness penalty: An investigation using the european social survey."** *Social Indicators Research* 123(1): 103-126. <http://dx.doi.org/10.1007/s11205-014-0725-4>

This study investigates in three steps whether there is an association between happiness and living in one of Europe's capital cities. Making use of the European Social Survey, the first step is a raw unadjusted correlation assessment which, overall, finds a negative and statistically significant effect on happiness of living in one of Europe's capitals. The second step is the addition of socio-economic controls which (overall) increases the happiness penalty associated with living in a European capital city. The third step adds environmental factors and perceptions (safety of local area, worries about crime, for example) to control for further potential confounding factors. Tentative evidence is also presented that this is not just a big city effect. Overall, there is a happiness penalty associated with living in Europe's capitals though this result is dominated by a few particularly unhappy capitals.

Rafnsson, S. B., A. Shankar, et al. (2015). **"Longitudinal influences of social network characteristics on subjective well-being of older adults: Findings from the elsa study."** *Journal of Aging and Health* 27(5): 919-934. <http://jah.sagepub.com/content/27/5/919.abstract>

Objective: To investigate the influence of social network characteristics on subjective well-being over 6 years in a population sample of older adults. Method: A total of 4,116 participants in the English Longitudinal Study of Aging provided baseline data on social network characteristics and potential confounding factors, and complete follow-up data on 2 measures of subjective well-being. Results: Social network size and network contact frequency were positively and independently associated with future life satisfaction and quality of life after controlling for confounding factors, including demographic characteristics, socioeconomic factors, and long-standing illness. In contrast, social network diversity was not independently related to future subjective well-being. Conclusion: Different aspects of people's social networks may help sustain levels of subjective well-being in older age. The role of close relationships and frequent contact in later life may be particularly important. These results highlight the need for examining different aspects of social networks for promoting well-being of older people.

Raila, H., B. J. Scholl, et al. (2015). **"Seeing the world through rose-colored glasses: People who are happy and satisfied with life preferentially attend to positive stimuli."** *Emotion* 15(4): 449-462. <http://psycnet.apa.org/journals/emo/15/4/449/>

Given the many benefits conferred by trait happiness and life satisfaction, a primary goal is to determine how these traits relate to underlying cognitive processes. For example, visual attention acts as a gateway to awareness, raising the question of whether happy and satisfied people attend to (and therefore see) the world differently. Previous work suggests that biases in selective attention are associated with both trait negativity and with positive affect states, but to our knowledge, no previous work has explored whether trait-happy individuals attend to the world differently. Here, we employed eye tracking as a continuous measure of sustained overt attention during passive viewing of displays containing positive and neutral photographs to determine whether selective attention to positive scenes is associated with measures of trait happiness and life satisfaction. Both trait measures were significantly correlated with selective attention for positive (vs. neutral) scenes, and this general pattern was robust across several types of positive stimuli (achievement, social, and primary reward), and not because of positive or negative state affect. Such effects were especially prominent during the later phases of sustained viewing. This suggests that people who are happy and satisfied with life may literally see the world in a more positive light, as if through rose-colored glasses. Future work should investigate the causal relationship between such attention biases and one's happiness and life satisfaction.

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.

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.

Stavrova, O. and D. Ehlebracht (2015). **"A longitudinal analysis of romantic relationship formation: The effect of prosocial behavior."** *Social Psychological and Personality Science* 6(5): 521-527. <http://spp.sagepub.com/content/6/5/521.abstract>

In line with the sexual selection for altruism hypothesis, research has shown that men and women typically prefer hypothetical partners who are described as prosocial to otherwise similar individuals. In this study, we consider this hypothesis in the real world by examining whether prosocial behavior conveys actual benefits in terms of real-life mating success. Using a nationally representative annual panel data set, we examine the impact of single individuals' prosocial behavior on their probabilities of finding a steady partner in the course of the following year. Our results show that single individuals who frequently engaged in prosocial behavior had substantially higher chances of being in a stable relationship the following year. The effect persisted even after accounting for individual differences in the Big Five personality traits and the degree of social involvement.

Suldo, S., D. R. Minch, et al. (2015). **"Adolescent life satisfaction and personality characteristics: Investigating relationships using a five factor model."** *Journal of Happiness Studies* 16(4): 965-983. <http://dx.doi.org/10.1007/s10902-014-9544-1>

The current study investigated the relationships among personality factors and life satisfaction in high school students (N = 624), who completed self-report measures of global life satisfaction and personality characteristics consistent with a Five Factor Model (i.e., extraversion, neuroticism, openness to experience, conscientiousness, and agreeableness). Analyses indicated that approximately 47 % of the variance in adolescents' life satisfaction scores was accounted for by their levels of the Big Five personality factors. Neuroticism emerged as the strongest predictor. Openness, conscientiousness, and extraversion were also significant and unique predictors of life satisfaction. Regarding gender differences, a higher level of agreeableness was related to higher life satisfaction for girls, but not for boys. Findings support the importance of including all Big Five personality factors in exploratory models of life satisfaction, and contribute to an understanding of gender-specific models of predictors of life satisfaction.

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.

Tarr, B., J. Launay, et al. (2015). **"Synchrony and exertion during dance independently raise pain threshold and encourage social bonding."** *Biology Letters* 11(10). <http://rsbl.royalsocietypublishing.org/roybiolett/11/10/20150767.full.pdf>
(Available in free full text) Group dancing is a ubiquitous human activity that involves exertive synchronized movement to music. It is hypothesized to play a role in social bonding, potentially via the release of endorphins, which are analgesic and reward-inducing, and have been implicated in primate social bonding. We used a 2 × 2 experimental design to examine effects of exertion and synchrony on bonding. Both demonstrated significant independent positive effects on pain threshold (a proxy for endorphin activation) and in-group bonding. This suggests that dance which involves both exertive and synchronized movement may be an effective group bonding activity. (See too further detail at <http://qz.com/538034/science-says-dancing-with-friends-is-good-for-your-health/>).

Thomas, M. L., K. J. Bangen, et al. (2015). **"Development of a 12-item abbreviated three-dimensional wisdom scale (3d-ws-12): Item selection and psychometric properties."** *Assessment*. <http://www.ncbi.nlm.nih.gov/pubmed/26209513>
Wisdom has been reported to be associated with better mental health and quality of life among older adults. Over the past decades, there has been considerable growth in empirical research on wisdom, including the development of standardized measures. The 39-item Three-Dimensional Wisdom Scale (3D-WS) is a useful assessment tool, given its rigorous development and good psychometric properties. However, the measure's length can prohibit use. In this article, we used a sample of 1,546 community-dwelling adults aged 21 to 100 years (M = 66 years) from the Successful AGing Evaluation (SAGE) study to develop an abbreviated 12-item version of the 3D-WS: the 3D-WS-12. Balancing concerns for measurement precision, internal structure, and content validity, factor analytic methods and expert judgment were used to identify a subset of 12-items for the 3D-WS-12. Results suggest that the 3D-WS-12 can provide efficient and valid assessments of Wisdom within the context of epidemiological surveys.

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.

Veenhoven, R. (2015). **"Informed pursuit of happiness: What we should know, do know and can get to know."** *Journal of Happiness Studies* 16(4): 1035-1071. <http://dx.doi.org/10.1007/s10902-014-9560-1>

The rational pursuit of happiness requires knowledge of happiness and in particular answers to the following four questions: (1) Is greater happiness realistically possible? (2) If so, to what extent is that in our own hands? (3) How can we get happier? What things should be considered in the choices we make? (4) How does the pursuit of happiness fit with other things we value? Answers to these questions are not only sought by individuals who want to improve their personal life, they are also on the mind of managers concerned about the happiness of members of their organization and of governments aiming to promote greater happiness of a greater number of citizens. All these actors might make more informed choices if they could draw on a sound base of evidence. In this paper I take stock of the available evidence and the answers it holds for the four types of questions asked by the three kinds of actors. To do this, I use a large collection of research findings on happiness gathered in the World Database of Happiness, which serves as an online supplement to this paper. The data provide good answers to the questions 1 and 2, but fall short on the questions 3 and 4. Priorities for further research are indicated.

Wayment, H. A., J. J. Bauer, et al. (2015). **"The quiet ego scale: Measuring the compassionate self-identity."** *Journal of Happiness Studies* 16(4): 999-1033. <http://dx.doi.org/10.1007/s10902-014-9546-z>

(Available in free full text) The quiet ego refers to a self-identity that transcends egoism and identifies with a less defensive, balanced stance toward the self and others. Study 1 establishes and confirms the 14-item Quiet Ego Scale (QES) as a higher-order latent factor (capturing the theoretical intersection of four first-order factors: detached awareness, inclusive identity, perspective taking, and growth). In studies 2–4 we examined the association of QES with 25 psychological constructs. Results demonstrate that QES is related to a wide range of characteristics and suggest that the QES measures an identity that strikes a balance between a strong sense of agency (but not egoism) and a strong concern for the welfare of others. Although QES was correlated with a number of related characteristics (e.g., self-compassion, self-determination, authenticity, self-transcendence), it was a distinct predictor of outcomes such as resilience, coping efficacy, and indices of well-being that could aid investigations of human happiness.

Wayment, H. A., A. F. Collier, et al. (2015). **"Brief quiet ego contemplation reduces oxidative stress and mind-wandering."** *Front Psychol* 6: 1481. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4588101/>

(Available in free full text) Excessive self-concern increases perceptions of threat and defensiveness. In contrast, fostering a more inclusive and expanded sense of self can reduce stress and improve well-being. We developed and tested a novel brief intervention designed to strengthen a student's compassionate self-identity, an identity that values balance and growth by reminding them of four quiet ego characteristics: detached awareness, inclusive identity, perspective taking, and growth. Students (N = 32) in their first semester of college who reported greater self-protective (e.g., defensive) goals in the

first 2 weeks of the semester were invited to participate in the study. Volunteers were randomly assigned to one of three conditions: quiet ego contemplation (QEC), QEC with virtual reality (VR) headset (QEC-VR), and control. Participants came to the lab three times to engage in a 15-min exercise in a 30-days period. The 15-min QEC briefly described each quiet ego characteristic followed by a few minutes time to reflect on what that characteristic meant to them. Those in the QEC condition reported improved quiet ego characteristics and pluralistic thinking, decreases in a urinary marker of oxidative stress, and reduced mind-wandering on a cognitive task. Contrary to expectation, participants who wore the VR headsets while listening to the QEC demonstrated the least improvement. Results suggest that a brief intervention that reduces self-focus and strengthens a more compassionate self-view may offer an additional resource that individuals can use in their everyday lives.

Yalçın, İ. and A. Malkoç (2015). **"The relationship between meaning in life and subjective well-being: Forgiveness and hope as mediators."** *Journal of Happiness Studies* 16(4): 915-929. <http://dx.doi.org/10.1007/s10902-014-9540-5>

The purpose of this study was to investigate whether hope and forgiveness are mediators in the relationship between meaning in life and subjective well-being. The sample consisted of 482 university students. The Meaning in Life Questionnaire, the Scale of Positive and Negative Experience, the Satisfaction with Life Scale, the State Hope Scale, the Dispositional Hope Scale, the Heartland Forgiveness Scale, and the demographic information form were used for data collection. Structural equation modeling was used to analyze the data. Fitness of the hypothesized model was tested through some model specifications. The results of the study indicated that hope and forgiveness fully mediated the relationship between meaning in life and subjective well-being. The findings of the study have contributed to the efforts to understand factors associated with subjective well-being of university students. These findings were discussed in the light of related literature and implications were suggested for university counseling services and future research.

Yan, O. H. and G. A. Bonanno (2015). **"How self-enhancers adapt well to loss: The mediational role of loneliness and social functioning."** *J Posit Psychol* 10(4): 370-382. <http://www.ncbi.nlm.nih.gov/pubmed/25972912>

OBJECTIVE: The tendency toward unrealistically optimistic self-serving biases, known as trait self-enhancement, has been associated with both adaptive benefits and negative social consequences. This study explored these potential benefits and costs in the context of conjugal bereavement. **METHOD:** The study included 94 individuals who had experienced the death of a spouse 1.5-3.0 years prior. The sample (62 female, 32 male) ranged in age from 37 to 60 (M = 51.45, SD = 6.08). To examine benefits, we used relatively objective measures of overall adjustment: structured clinical interviews and ratings from participants' close friends and relatives. To examine social adjustment, we examined friends'/relatives' ratings of the quality of social interactions and the possible mediating roles of perceived loneliness and friend/relative ratings. **RESULTS:** Trait self-enhancement was uniformly associated with positive adjustment: relatively lower symptom totals, and friend/relative ratings of both overall better adjustment and better social adjustment. Self-enhancers' low loneliness was found to mediate reduced symptoms. Also, friends'/relatives' ratings of social functioning appeared to mediate self-enhancers' reduced loneliness. **CONCLUSIONS:** These findings provide further empirical data to challenge the longstanding assumption that inaccurate self-perception is inherently maladaptive. Authentic benefits may result from mistaken perceptions of oneself by influencing the experience of loneliness and how one is seen by close friends/relatives. Self-enhancement may be an adaptation that provides clinically relevant advantages.

Zuzanek, J. and T. Zuzanek (2015). **"Of happiness and of despair, is there a measure? Time use and subjective well-being."** *Journal of Happiness Studies* 16(4): 839-856. <http://dx.doi.org/10.1007/s10902-014-9536-1>

Data from the 1975 U.S. time use survey, Canadian time use surveys (GSS) conducted from 1986 to 2010, and experience sampling surveys (ESM) conducted in 1985 and 2003 at the University of Waterloo (Canada) are used to examine well-being effects of time use. Indicators of subjective well-being (SWB) under investigation include: (a) generalised enjoyment ratings of selected daily activities; (b) reporting of the single most enjoyed activity performed on the time diary day; (c) affect ratings of daily activities recorded in ESM surveys at the time of their occurrence; (d) correlations between time use and levels of respondents' perceived happiness and life satisfaction, and (e) relationships between frequency of participation in different groups of daily activities and respondents' cumulative affect ratings during a survey week (ESM 1985, 2003). An argument is made that attempts to delineate indices of SWB as multiples of activity enjoyment ratings and their duration encounter considerable measurement and conceptual difficulties. It is suggested that prolonged exposure to highly enjoyed daily activities does not always foretell higher levels of cumulative subjective well-being, which is associated with balanced use of time rather than increased participation in individual activities.