

22 positive psychology relevant abstracts

november '18 newsletter

Blanke, E. S., M. Riediger, et al. (2018). **"Pathways to happiness are multidirectional: Associations between state mindfulness and everyday affective experience."** *Emotion* 18(2): 202-211. <http://psycnet.apa.org/record/2017-20197-001>

Mindfulness is commonly defined as a multidimensional mode of being attentive to, and aware of, momentary experiences while taking a nonjudgmental and accepting stance. These qualities have been linked to 2 different facets of affective well-being: being attentive is proposed to lead to an appreciation of experiences as they are, and thus to positive affect (PA). Accepting unpleasant experiences in a nonjudgmental fashion has been hypothesized to reduce negative affect (NA). Alternatively, however, attention may increase both positive and negative affectivity, whereas nonjudgmental acceptance may modify how people relate to their experiences. Previous research has considered such differential associations at the trait level, although a mindful mode may be understood as a state of being. Using an experience-sampling methodology (ESM) with smartphones, the present research therefore links different state mindfulness facets to positive and NA in daily life. Seventy students (50% female, 20-30 years old) of different disciplines participated in the study. Based on multidimensional assessments of self-reported state mindfulness and state affect, the findings corroborate the hypotheses on the differential predictive value of 2 mindfulness facets: Participants experienced more PA when they were attentive to the present moment and less NA when they nonjudgmentally accepted momentary experiences. Furthermore, only nonjudgmental acceptance buffered the impact of daily hassles on affective well-being. The study contributes to a more fine-grained understanding of the within-person mechanisms relating mindfulness to affective well-being in daily life. Future interventions may be able to enhance different aspects of affective well-being by addressing specific facets of mindfulness.

Kumar, A. and N. Epley (2018). **"Undervaluing gratitude: Expressers misunderstand the consequences of showing appreciation."** *Psychological Science* 0(0): 0956797618772506.

<http://journals.sagepub.com/doi/abs/10.1177/0956797618772506>

Expressing gratitude improves well-being for both expressers and recipients, but we suggest that an egocentric bias may lead expressers to systematically undervalue its positive impact on recipients in a way that could keep people from expressing gratitude more often in everyday life. Participants in three experiments wrote gratitude letters and then predicted how surprised, happy, and awkward recipients would feel. Recipients then reported how receiving an expression of gratitude actually made them feel. Expressers significantly underestimated how surprised recipients would be about why expressers were grateful, overestimated how awkward recipients would feel, and underestimated how positive recipients would feel. Expected awkwardness and mood were both correlated with participants' willingness to express gratitude. Wise decisions are guided by an accurate assessment of the expected value of action. Underestimating the value of prosocial actions, such as expressing gratitude, may keep people from engaging in behavior that would maximize their own—and others'—well-being. [Nice discussion of this article at BPS Digest <https://tinyurl.com/y89dfpen>].

Kushlev, K., S. J. Heintzelman, et al. (2018). **Delivering happiness online: A randomized controlled trial of a web platform for increasing subjective well-being.** *Technology, Mind, and Society*. Washington, DC USA.

(Available in free full text on Researchgate) Although both online and in-person positive psychology interventions (PPIs) exist, no randomized controlled trials (RCT)—the gold standard in intervention research—have compared the effectiveness of these formats. We created a 12-week skills-based PPI (ENHANCE), organized into three target areas: the core self (e.g., values, strengths), the experiential self (e.g., mindfulness, self-compassion), and the social self (e.g., gratitude, social life). In two 6-month randomized controlled trials (RCT) with a total community sample of 154 healthy adults, we administered the ENHANCE program online (N = 100) and in-person (N = 54). The in-person version of the program involved 2-hour weekly group sessions run by clinical practitioners. The online version followed a parallel structure with identical content; each participant created an account on a custom-designed integrated web platform, where they were able to view the session content, complete exercises, and save their responses to those exercises. We did not find differences between the online and the traditional program in the key predicted increases in positive affect and life satisfaction. This finding provides critical evidence for the potential of online PPIs to bring about similar changes in well-being as traditional, in-person interventions—but at a much larger scale. This research thus lays the foundations for administering empirically validated interventions to populations who may not be able to afford access to in-person interventions—from busy professionals to underprivileged populations.

Kushlev, K., S. J. Heintzelman, et al. (2018). **"The declining marginal utility of social time for subjective well-being."** *Journal of Research in Personality* 74: 124-140. <http://www.sciencedirect.com/science/article/pii/S0092656618300369>

Are people who spend more time with others always happier than those who spend less time in social activities? Across four studies with more than 250,000 participants, we show that social time has declining marginal utility for subjective well-being. In Study 1 (N = 243,075), we use the Gallup World Poll with people from 166 countries, and in Study 2 (N = 10,387) the American Time Use Survey (ATUS), to show that social time has declining returns for well-being. In Study 3a (N = 168) and Study 3b (N = 174), we employ the Experience Sampling Method (ESM) to provide initial evidence for both intra-domain (principle of diminishing satisfaction) and inter-domain mechanisms (principle of satisfaction limits). We discuss implications for theory, research methodology, and practice.

Lam, B. C. P., C. Haslam, et al. (2018). **"Multiple social groups support adjustment to retirement across cultures."** *Social Science & Medicine* 208: 200-208. <http://www.sciencedirect.com/science/article/pii/S0277953618302922>

Rationale Research has demonstrated the positive effects that social identification with multiple groups has on people's health and well-being, in part during the transition from work to retirement. However, these effects have not been examined outside Western retirement contexts. This study addresses this gap. Objective This investigation aims to examine the contribution that group membership and identification with multiple social groups makes to supporting retirees' physical health and well-being across cultures. Method Responses from a representative sample of 10,513 retired individuals from 51 countries drawn from the World Values Survey were used in this analysis. This research focused on the number of group memberships, identification with multiple groups, subjective health, and well-being that respondents reported. Results Analysis showed that belonging to multiple groups positively predicted retirees' health and well-being in both Western and non-Western cultural contexts. In line with cross-cultural research, there was evidence that country-level collectivism moderated the strength of this association, with the effect being weaker in collectivistic (vs. individualistic) countries. Conclusion Findings confirm the utility of using the social identity approach to understand people's adjustment to retirement across cultures.

Layous, K., J. Kurtz, et al. (2018). **"Reframing the ordinary: Imagining time as scarce increases well-being."** *The Journal of Positive Psychology* 13(3): 301-308. <https://doi.org/10.1080/17439760.2017.1279210>

We explored a counterintuitive approach to increasing happiness: Imagining time as scarce. Participants were randomly assigned to try to live this month (LTM) like it was their last in their current city (time scarcity intervention; n = 69) or to keep track of their daily activities (neutral control; n = 70). Each group reported their activities and their psychological need satisfaction (connectedness, competence, and autonomy) weekly for 4 weeks. At baseline, post-intervention, and 2-week follow-up, participants reported their well-being ? a composite of life satisfaction, positive emotions, and negative emotions. Participants in the LTM condition increased in well-being over time compared to the control group. Furthermore, mediation analyses indicated that these differences in well-being were explained by greater connectedness, competence, and autonomy. Thus, imagining time as scarce prompted people to seize the moment and extract greater well-being from their lives.

Loveday, P. M., G. P. Lovell, et al. (2018). **"The best possible selves intervention: A review of the literature to evaluate efficacy and guide future research."** *Journal of Happiness Studies* 19(2): 607-628. <https://doi.org/10.1007/s10902-016-9824-z>

Since its inception in 2001, the best possible selves (BPS) activity has been the focus of more than 30 studies which have shown it to be a viable intervention for increasing optimism, positive affect, health and well-being. It is timely to critically review the findings from the BPS literature and suggest directions for future research. The majority of BPS studies have used an experimental methodology and have administered the BPS activity to diverse groups including students, adults, depressive individuals and suicidal inpatients. The BPS intervention can be effective when administered in-person or on-line and repeating the activity appears to enhance efficacy. Suggestions for future research include: (a) investigation of mediator variables, (b) additional outcome variables such as hope and appreciation, (c) comparative studies regarding dosage to enhance effectiveness, (d) extension of the BPS into a best-possible-other activity, (e) diversity of delivery methods, and (f) thematic content analysis of BPS text.

Manstead, A. S. R. (2018). **"The psychology of social class: How socioeconomic status impacts thought, feelings, and behaviour."** *British Journal of Social Psychology* 57(2): 267-291. <https://onlinelibrary.wiley.com/doi/abs/10.1111/bjso.12251>

(Available in free full text) Drawing on recent research on the psychology of social class, I argue that the material conditions in which people grow up and live have a lasting impact on their personal and social identities and that this influences both the way they think and feel about their social environment and key aspects of their social behaviour. Relative to middle-class counterparts, lower/working-class individuals are less likely to define themselves in terms of their socioeconomic status and are more likely to have interdependent self-concepts; they are also more inclined to explain social events in situational terms, as a result of having a lower sense of personal control. Working-class people score higher on measures of empathy and are more likely to help others in distress. The widely held view that working-class individuals are more prejudiced towards immigrants and ethnic minorities is shown to be a function of economic threat, in that highly educated people also express prejudice towards these groups when the latter are described as highly educated and therefore pose an economic threat. The fact that middle-class norms of independence prevail in universities and prestigious workplaces makes working-class people less likely to apply for positions in such institutions, less likely to be selected and less likely to stay if selected. In other words, social class differences in identity, cognition, feelings, and behaviour make it less likely that working-class individuals can benefit from educational and occupational opportunities to improve their material circumstances. This means that redistributive policies are needed to break the cycle of deprivation that limits opportunities and threatens social cohesion.

Margolis, S., E. Schwitzgebel, et al. (2018). **"A new measure of life satisfaction: The riverside life satisfaction scale."** *J Pers Assess*: 1-10. <https://www.ncbi.nlm.nih.gov/pubmed/29723079>

The Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) has been the dominant measure of life satisfaction since its creation more than 30 years ago. We sought to develop an improved measure that includes indirect indicators of life satisfaction (e.g., wishing to change one's life) to increase the bandwidth of the measure and account for acquiescence bias. In 3 studies, we developed a 6-item measure of life satisfaction, the Riverside Life Satisfaction Scale, and obtained reliability and validity evidence. Importantly, the Riverside Life Satisfaction Scale retained the high internal consistency, test-retest stability, and unidimensionality of the Satisfaction With Life Scale. In addition, the Riverside Life Satisfaction Scale correlated with other well-being measures, Big Five personality traits, values, and demographic information in expected ways. Although the Riverside Life Satisfaction Scale correlated highly with the Satisfaction With Life Scale, we believe it improves the Satisfaction With Life Scale by appropriately increasing construct breadth and reducing the potential for bias.

Mededović, J. (2018). **"Testing the state-dependent behavior models in humans: Environmental harshness moderates the link between personality and mating."** *Personality and Individual Differences* 125: 68-73. <http://www.sciencedirect.com/science/article/pii/S0191886917307493>

In behavioral ecology, state-dependent models are frequently used for the explanation of inter-individual variance in personality traits. Environmental characteristics are one of the external states which could influence this variance. The model predicts that environmental harshness should be related to fast life-history personality traits and that these traits should be more beneficial for fitness-related behavior in a harsh environment. In order to test the state-dependent behavior models in humans, we explored the relations between environmental harshness (exposure to long-term inter-group conflict), HEXACO personality traits and mating success (N=204). We found that exposure to conflict is related to a fast life-history personality profile: lower Honesty, Agreeableness and Conscientiousness, followed by higher Extraversion. Furthermore, interaction effects showed that high Extraversion and low Emotionality are related to higher mating success, but only in a harsh environment. All obtained results are in line with state-dependent models predictions. Research findings reveal the rich explanatory potential of behavioral ecological models in explaining key questions of human behavior, such as inter-individual variance in personality.

Myers, D. G. and E. Diener (2018). **"The scientific pursuit of happiness."** *Perspect Psychol Sci* 13(2): 218-225. <https://www.ncbi.nlm.nih.gov/pubmed/29592651>

We review the history of happiness research that gave rise to our 1995 review. We then summarize-and update with a quick synopsis of more recent research-each of our conclusions regarding the associations of subjective well-being with age, gender, income, personal traits, social support, and religious engagement. Finally, we briefly review new research on the benefits of happiness, and of happiness interventions at both individual and national levels.

Pachankis, J. E. and R. Branstrom (2018). **"Hidden from happiness: Structural stigma, sexual orientation concealment, and life satisfaction across 28 countries."** *J Consult Clin Psychol* 86(5): 403-415. <http://psycnet.apa.org/doiLanding?doi=10.1037%2Fccp0000299>

OBJECTIVE: Although structural stigma (i.e., discriminatory laws, policies, and community attitudes) toward sexual minorities predicts adverse health and wellbeing, this association has typically only been examined within a single country and potential mechanisms remain unknown. Consequently, we examined the association between structural stigma and sexual minorities' life satisfaction across 28 countries, identity concealment as a potential mechanism of this association, and, in high-stigma countries, the potential for concealment to protect sexual minorities from discrimination and victimization, and therefore even poorer life satisfaction than they would otherwise experience in those countries. **METHOD:** Sexual minority adults (n = 85,582) from 28 European countries responded to questions regarding sexual minority stigma, identity concealment, and life satisfaction. Structural stigma was assessed as national laws, policies, and attitudes affecting sexual minorities in each country. **RESULTS:** Country-level structural stigma explained 60% of country-level variation in life satisfaction and more than 70% of country-level variation in sexual orientation concealment. Sexual orientation concealment mediated the association between structural stigma and life satisfaction. Especially in high-stigma countries, concealment also protected against even lower life satisfaction than would be experienced if a sexual minority individual did not conceal in those countries because it partially protected against discrimination and victimization. **CONCLUSIONS:** Sexual minorities' life satisfaction varies greatly across countries largely due to the structural stigma of those countries and associated demands to conceal one's sexual orientation. Findings highlight the importance of reducing structural stigma to promote equitable life satisfaction and tailoring affirmative psychotherapies to address the structural context surrounding sexual minorities who seek treatment.

Palmer, C. A. and A. L. Gentzler (2018). **"Adults' self-reported attachment influences their savoring ability."** *The Journal of Positive Psychology* 13(3): 290-300. <https://doi.org/10.1080/17439760.2017.1279206>

Positive affect is important for well-being, yet little is known about individual differences in the ability to up-regulate (savor) positive emotions. In a sample of 120 adults (ages 18-94; 62.5% female), this study extends correlational work by examining how attachment relates to self-reported savoring and to an experimentally-induced behavioral savoring task where participants were randomly assigned to reflect on a positive event (or complete a control task). Avoidance was related to lower trait savoring, and the effects of attachment on experimentally-induced savoring differed by the type of event participants savored. Avoidance was related to poorer affective outcomes after savoring interpersonal events but was unrelated to affective outcomes for non-interpersonal events. Anxiety was related to better outcomes after savoring non-interpersonal events but was unrelated to savoring interpersonal events. Overall, effects suggest that more insecurely attached adults may not savor as often, and may have difficulty savoring interpersonal events but not non-interpersonal events.

Rohrer, J. M., D. Richter, et al. (2018). **"Successfully striving for happiness: Socially engaged pursuits predict increases in life satisfaction."** 0(0): 0956797618761660. <http://journals.sagepub.com/doi/abs/10.1177/0956797618761660>

Happiness is considered a highly desirable attribute, but whether or not individuals can actively steer their lives toward greater well-being is an open empirical question. In this study, respondents from a representative German sample reported, in text format, ideas for how they could improve their life satisfaction. We investigated which of these ideas predicted changes in life satisfaction 1 year later. Active pursuits per se—as opposed to statements about external circumstances or fortune—were not associated with changes in life satisfaction (n = 1,178). However, in line with our preregistered hypothesis, among individuals who described active pursuits (n = 582), those who described social ideas (e.g., spending more time with friends and family) ended up being more satisfied, and this effect was partly mediated by increased socializing. Our results demonstrate that not all pursuits of happiness are equally successful and corroborate the great importance of social relationships for human well-being.

Shepherd, A. M., S. S. Schnitker, et al. (2018). **"Developing the good physician: Spirituality affects the development of virtues and moral intuitions in medical students."** *The Journal of Positive Psychology* 13(2): 143-154. <https://doi.org/10.1080/17439760.2016.1269185>

The Project on the Good Physician is a national longitudinal study of moral and professional formation of American physicians over the course of medical training. The purpose of this paper is to examine the processes by which spirituality influences the development of three virtues (mindfulness, empathic compassion, and generosity) in medical students as mediated by the moral intuition to care/harm, as well as make predictions as to how this type of study could be generalizable to other populations. Study participants were 563 medical students recruited by the University of Chicago from 24 medical schools across the U.S. (54.7% male, 57% white) who completed measures assessing virtue formation 9 months apart. Path analysis of a cascade model showed that spirituality (but not religiousness) was directly and indirectly related to change in the virtue empathic compassion, and also indirectly related to change in the virtue generosity. Moreover, the moral intuition to care/harm partially mediated the association between spirituality and the virtues of empathic compassion and generosity (but not mindfulness).

Szczygiel, D. and M. Mikolajczak (2018). **"Is it enough to be an extrovert to be liked? Emotional competence moderates the relationship between extraversion and peer-rated likeability."** *Front Psychol* 9: 804. <https://www.frontiersin.org/articles/10.3389/fpsyg.2018.00804/full>

(Available in free full text) Likeability represents one of the aspects of social status in a peer group and refers to the extent to which one is accepted, preferred by others, and perceived as a likeable companion. Previous research has demonstrated that likeability is partly determined by dispositional factors. One body of research shows that variance in likeability across individuals can be traced to personality traits, mainly extraversion and agreeableness. Another expanding body of research demonstrates that success in achieving peer acceptance is determined, in some part, by the emotional competencies (ECs) of an individual. In an attempt to combine these two approaches and to clarify some inconsistencies in the results concerning the personality-likeability relationships, this study was designed to examine the interactive effect of adolescents' personality traits (i.e., extraversion and agreeableness) and ECs on peer-rated likeability in adolescence. A sample of 230 adolescents (47% female) from two comprehensive secondary schools in Poland completed measures of personality traits and ECs, as well as a sociometric assessment of likeability in their classrooms. The results demonstrated that interpersonal EC acts as a moderator in the relationship between extraversion and peer-rated likeability. Specifically, extraversion predicted greater likeability among adolescents with high interpersonal EC but not among adolescents with low interpersonal EC. The study yielded new insights into the determinants of likeability, as it demonstrates that adolescents need to be both extrovert and possess high interpersonal EC in order to be judged highly likeable by their peers. It also bears practical implications for the improvement of adolescents' position and acceptance within their peer group. The results suggest that encouraging "rejected" adolescents to reach out to others in an extrovert fashion is necessary but insufficient to increase their likeability. Improving their interpersonal EC is also necessary. The observation that higher levels of interpersonal EC helps adolescents to achieve higher acceptance in their peer group suggests the need to implement school training programs aimed at improving the core ECs (identification, understanding, expression, regulation and use of emotions).

von Soest, T., J. Wagner, et al. (2018). **"Self-esteem across the second half of life: The role of socioeconomic status, physical health, social relationships, and personality factors"** *Journal of Personality and Social Psychology* 114: 945-958. <http://dx.doi.org/10.1037/pspp0000123>

Self-esteem development across adulthood has been in the center of interest for some time now. However, not much is known about factors that shape self-esteem and its development in the second half of life and whether the factors differ with age and gender. To examine these questions, this study uses 2-wave data from the population-based NorLAG study in Norway (N = 5,555; Mage = 58 years; 51% women) and combines self-report data on self-esteem and personality with registry-based information on socioeconomic status (education, income, unemployment), health problems (sick leave, lifetime history of disability), and social relationships (cohabiting partner, lifetime history of divorce and widowhood). Results from latent change score models revealed that self-esteem peaked at around age 50 and declined thereafter. More importantly, lower socioeconomic status, not having a cohabiting partner, unemployment, and disability were each uniquely associated with lower levels of self-esteem and/or steeper declines in self-esteem over the 5-year study period. Over and above registry-based information, personality characteristics were relevant, with a more mature personality being associated with higher self-esteem level. Emotionally stable participants also showed less pronounced declines in self-esteem. Moreover, associations of disability and of emotional stability with self-esteem level were weaker with advancing age. Among women, self-esteem level was more strongly associated with emotional stability and less strongly with openness, compared to men. Our findings demonstrate the utility of registry-based information and suggest that physical health, social relationships, and personality factors are in manifold ways uniquely associated with self-esteem and its development later in life.

Walker, G. J. and S. Kono (2018). **"The effects of basic psychological need satisfaction during leisure and paid work on global life satisfaction."** *The Journal of Positive Psychology* 13(1): 36-47. <https://doi.org/10.1080/17439760.2017.1374439>

We investigated whether satisfaction of employees' basic psychological needs for autonomy, competence, and/or relatedness during leisure positively impacted their leisure domain satisfaction (LSAT) and, in turn, whether LSAT positively influenced their global life satisfaction (GLS). To better understand the above, we simultaneously examined these same relationships in the paid work domain. Useable data were collected from 395 adults employed at least 20 h per week. Structural equation modeling indicated that satisfaction of all three needs positively affected LSAT; with autonomy having the greatest effect. In comparison, although autonomy and relatedness need satisfaction positively affected work domain satisfaction (WSAT), competence's effect was not significant. LSAT and WSAT positively, and age negatively, affected GLS; collectively explaining 48.6% of the total variance. Our findings largely support basic psychological needs theory in both the leisure and work domains and, furthermore, suggest these two contexts are equally effectual in regard to GLS.

West, K. (2018). **"Naked and unashamed: Investigations and applications of the effects of naturist activities on body image, self-esteem, and life satisfaction."** *Journal of Happiness Studies* 19(3): 677-697. <https://doi.org/10.1007/s10902-017-9846-1>

Body image dissatisfaction is a serious, global problem that negatively affects life satisfaction. Several claims have been made about the possible psychological benefits of naturist activities, but very little empirical research has investigated these benefits or any plausible explanations for them. In three studies—one large-scale, cross-sectional study (n = 849), and 2 prospective studies (n = 24, n = 100) this research developed and applied knowledge about the possible benefits of naturist activities. It was found that more participation in naturist activities predicted greater life satisfaction—a relationship that was mediated by more positive body image, and higher self-esteem (Study 1). Applying these findings, it was found that participation in actual naturist activities led to an increase in life satisfaction, an effect that was also mediated by improvements in body image and self-esteem (Studies 2 and 3). The potential benefits of naturism are discussed, as well as possible future research, and implications for the use of naturist activities.

Wiese, C. W., L. Tay, et al. (2018). **"Measuring thriving across nations: Examining the measurement equivalence of the comprehensive inventory of thriving (cit) and the brief inventory of thriving (bit)."** *Appl Psychol Health Well Being* 10(1): 127-148. <https://www.ncbi.nlm.nih.gov/pubmed/29498236>

BACKGROUND: Positive psychological health is a multifaceted construct and fundamental to individuals' overall mental health. Yet, measures of positive psychological health tend to focus on only a few of these facets. Su, Tay, and Diener () sought to address this by creating the Comprehensive and Brief Inventories of Thriving (CIT/BIT), integrative measures of well-being that assess positive psychological health broadly. METHOD: Given growing interest in cross-national comparisons in positive psychological health, the present study expands on this work by examining the measurement invariance of these two measures across 10 countries (N = 3,077). First, a series of single-group confirmatory analyses were run to assess how well the CIT/BIT fit data from each country. Next, multi-group confirmatory analyses were run to assess measurement invariance. RESULTS: Single-group confirmatory factor analysis supported the original 18-factor structure of the CIT when compared to alternative models (single factor, seven factor, bi-factor model) in seven of the 10 countries and the single-factor structure of the BIT across all countries. Results from the measurement invariance analysis indicated partial scalar invariance for the remaining seven countries on the CIT as well as partial scalar invariance across all countries for the BIT. CONCLUSION: The present study extends the initial work by Su et al. () by providing evidence of the measurement invariance of the comprehensive and brief inventories of thriving across cultures. Although the factor structure of the CIT was inadmissible in three countries, the results provide a crucial first step for those interested in comparing positive psychological health across nations. Research in both using these measures and cross-cultural comparisons on positive psychological health is growing. We hope that the current efforts help facilitate this work towards furthering the understanding of positive psychological health.

Wong, Y. J., J. Owen, et al. (2018). **"Does gratitude writing improve the mental health of psychotherapy clients? Evidence from a randomized controlled trial."** *Psychotherapy Research* 28(2): 192-202. <https://doi.org/10.1080/10503307.2016.1169332>

Although the past decade has witnessed growing research interest in positive psychological interventions (PPIs), their potential as adjunctive interventions for psychotherapy remains relatively unexplored. Therefore, this article expands the frontiers of PPI research by reporting the first randomized controlled trial to test a gratitude writing adjunctive intervention for psychotherapy clients. Participants were 293 adults seeking university-based psychotherapy services. Participants were randomly assigned to one of three conditions: (a) control (psychotherapy only), (b) a psychotherapy plus expressive writing, and (c) a psychotherapy plus gratitude writing. Participants in the gratitude condition wrote letters expressing gratitude to others, whereas those in the expressive writing condition wrote about their deepest thoughts and feelings about stressful experiences. About 4 weeks as well as 12 weeks after the conclusion of the writing intervention, participants in the gratitude condition reported significantly better mental health than those in the expressive and control conditions, whereas those in the expressive and control conditions did not differ significantly. Moreover, lower proportions of negative emotion words in participants' writing mediated the positive effect of condition (gratitude versus expressive writing) on mental health. These findings are discussed in light of the use of gratitude interventions as adjunctive interventions for psychotherapy clients.

Zuckerman, M., C. Li, et al. (2018). **"Religion as an exchange system: The interchangeability of god and government in a provider role."** *Pers Soc Psychol Bull*: 146167218764656. <https://www.ncbi.nlm.nih.gov/pubmed/29649367>

An exchange model of religion implies that if a secular entity such as government provides what people need, they will be less likely to seek help from supernatural entities. Controlling for quality of life and income inequality (Gini), we found that better government services were related to lower religiosity among countries (Study 1) and states in the United States (Study 2). Study 2 also showed that during 2008-2013, better government services in a specific year predicted lower religiosity 1 to 2 years later. In both studies, a combination of better government services and quality of life was related to a particularly low level of religiosity. Among countries, government services moderated the relation between religiosity and two measures of well-being, such that religiosity was related to greater well-being only when government services were low. We discuss the relation between the exchange model and other theoretical approaches to religion.