# **UC Riverside**

# **UC Riverside Previously Published Works**

# **Title**

How Do Simple Positive Activities Increase Well-Being?

# **Permalink**

https://escholarship.org/uc/item/079475fr

# **Journal**

Current Directions in Psychological Science, 22(1)

# **ISSN**

0963-7214

# **Authors**

Lyubomirsky, Sonja Layous, Kristin

# **Publication Date**

2013-02-01

### DOI

10.1177/0963721412469809

Peer reviewed



# How Do Simple Positive Activities Increase Well-Being?

Current Directions in Psychological Science 22(1) 57–62 © The Author(s) 2013 Reprints and permission: sagepub.com/journalsPermissions.nav DOI: 10.1177/0963721412469809 http://cdps.sagepub.com

# **\$**SAGE

# Sonja Lyubomirsky and Kristin Layous

University of California, Riverside

#### **Abstract**

Theory and research suggest that people can increase their happiness through simple intentional positive activities, such as expressing gratitude or practicing kindness. Investigators have recently begun to study the optimal conditions under which positive activities increase happiness and the mechanisms by which these effects work. According to our positive-activity model, features of positive activities (e.g., their dosage and variety), features of persons (e.g., their motivation and effort), and person-activity fit moderate the effect of positive activities on well-being. Furthermore, the model posits four mediating variables: positive emotions, positive thoughts, positive behaviors, and need satisfaction. Empirical evidence supporting the model and future directions are discussed.

#### **Keywords**

happiness, subjective well-being, positive activities, positive interventions, self-improvement

Happiness not only feels good, it is good. Happier people have more stable marriages, stronger immune systems, higher incomes, and more creative ideas than their less happy peers (Lyubomirsky, King, & Diener, 2005). Furthermore, crosssectional, longitudinal, and experimental studies have demonstrated that happiness (i.e., long-term positive affect or well-being) is not merely a correlate or consequence of success but a cause of it (Lyubomirsky, King, & Diener, 2005). For the majority of people around the globe who report wanting to be happy (Diener, 2000), these findings would be disheartening if happiness could not be achieved intentionally. Despite evidence suggesting that individual differences in well-being are strongly influenced by genetics (e.g., Lykken & Tellegen, 1996), researchers have theorized that much of people's happiness is under their control (Lyubomirsky, Sheldon, & Schkade, 2005). A study that combined results from 51 randomized controlled interventions found that people prompted to engage in positive intentional activities, such as thinking gratefully, optimistically, or mindfully, became significantly happier (Sin & Lyubomirsky, 2009).

By examining the characteristics of dispositionally happy people (e.g., their tendencies to be grateful, exhibit optimistic thinking, and engage in prosocial behavior; Lyubomirsky, 2001), researchers have been able to posit activities that might increase people's happiness if deliberately practiced. We define positive activities as simple, intentional, and regular practices meant to mimic the myriad healthy thoughts and behaviors associated with naturally happy people. The efficacy of numerous positive activities for improving well-being

has now been tested empirically. Experimenters have prompted people to write letters expressing gratitude (Boehm, Lyubomirsky, & Sheldon, 2011; Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2011; Seligman, Steen, Park, & Peterson, 2005), to count their blessings (Emmons & McCullough, 2003; Lyubomirsky, Sheldon, & Schkade, 2005; Seligman et al., 2005), to perform kind acts (Della Porta, Jacobs Bao, & Lyubomirsky, 2012; Lyubomirsky, Sheldon, & Schkade, 2005; Sheldon, Boehm, & Lyubomirsky, 2012), to cultivate their strengths (Seligman et al., 2005), to visualize their ideal future selves (Boehm et al., 2011; King, 2001; Layous, Nelson, & Lyubomirsky, 2012), and to meditate (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008). All of these practices are brief, self-administered, and cost-effective.

# Factors Affecting the Success of Positive Activities

Research on happiness-increasing strategies has shown that they work (Sin & Lyubomirsky, 2009), but under what conditions do they work best? Our positive-activity model (see Fig. 1) draws on theoretical and empirical evidence to depict (a) an overview of the activity features and person features that render a positive activity optimally effective and (b) the

#### **Corresponding Author:**

Sonja Lyubomirsky, Department of Psychology, University of California, Riverside, CA 92521

E-mail: sonja.lyubomirsky@ucr.edu

58 Lyubomirsky, Layous

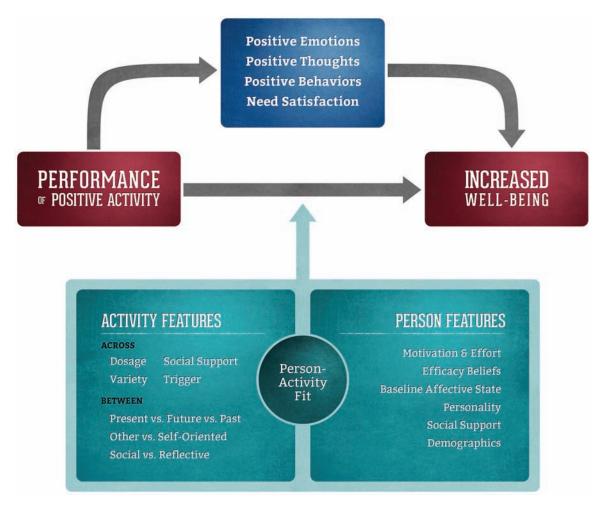


Fig. 1. The positive-activity model, which aims to explain how and why performing positive activities makes people happier. As illustrated at top, positive activities increase positive emotions, positive thoughts, positive behaviors, and need satisfaction, all of which in turn enhance well-being. Features of positive activities (e.g., dosage and variety) and of the person (e.g., motivation and effort) influence the degree to which the activities improve well-being. An optimal person-activity fit (i.e., the overlap between activity and person features) further predicts increases in well-being.

mechanisms that underlie the positive activity's successful improvement of well-being. Furthermore, the extent to which any activity feature influences a positive activity's success depends on the fit between the person (e.g., his or her personality or culture) and that activity feature (e.g., dosage or social support; represented in Fig. 1 as person-activity fit).

#### **Moderators**

Using randomized controlled studies, researchers have identified several conditions under which positive activities most effectively enhance happiness. Activity features concern the positive activity itself (e.g., what type of behavior it is and how often it is practiced), whereas person features pertain to the person practicing the positive activity (e.g., whether he or she is motivated to pursue happiness). Finally, personactivity fit is the customized match between activity and person features.

**Features of the activity.** Features of positive activities including their dosage, variety, sequence, and built-in social support—all influence their success at increasing happiness. For example, as with any medical or psychological treatment, the dosage (i.e., frequency and timing) of a positive activity matters. In one study, performing five kind acts in one day each week (for 6 weeks) resulted in larger increases in wellbeing than did performing five kind acts throughout the week (Lyubomirsky, Sheldon, & Schkade, 2005), a pattern indicating that "watering down" positive activities by spreading them out might limit their potency. Other positive activities, however, could easily be overdone. For example, in another study, counting one's blessings was less effective three times per week than once per week (Lyubomirsky, Sheldon, & Schkade, 2005). What is interesting is that both studies suggested that positive activities performed once a week are maximally effective, possibly because many cultural routines (involving work, worship, and even television) are conducted weekly.

Positive-Activity Model 59

Determining the ideal dosage of positive activities is tricky, however, because it likely varies by person and by activity. For example, in naturalistic settings, people report practicing happiness-increasing activities several times a week for more than an hour each time (Parks, Della Porta, Pierce, Zilca, & Lyubomirsky, 2012), and in one study, users of a positive-activity smartphone application reported bigger benefits when they logged in more frequently (Parks et al., 2012, Study 3). Perhaps when people are free to choose their happiness-increasing activities, they do not view the activities as cumbersome and gladly perform them for longer and more often. Hence, person–activity fit likely governs optimal dosage.

Furthermore, when people choose their own positive activities rather than following an experimenter's instructions, they may be more likely to vary their practices. Theory and research suggest that positive changes in people's lives (e.g., beginning an exercise regimen; Glaros & Janelle, 2001) are more likely to promote sustained boosts in well-being if the events generated by the positive changes are varied (for a review, see Lyubomirsky, 2011). For example, participants who performed varied kind acts every week increased their levels of well-being more than did participants who performed the same kind acts (Sheldon et al., 2012).

Variety matters not only to the practice of a single positive activity but also to the practice of multiple activities. Indeed, participants in the naturalistic study reported performing almost eight different positive activities simultaneously (Parks et al., 2012), and participants in a Web-based study obtained the biggest benefits when practicing two or four positive activities concurrently (Schueller & Parks, 2012). Further evidence has suggested that certain positive activities might be good "starter" activities. U.S. participants who began a 6-week happiness intervention by writing letters expressing gratitude experienced greater increases in well-being than did those who began by performing acts of kindness (Layous, Lee, Choi, & Lyubomirsky, 2012). Expressing gratitude might have served as a trigger that precipitated an immediate upward spiral of positive emotions (Fredrickson, 2001) or galvanized people to "pay it forward," thereby leading them to exert more effort and ultimately reap greater benefits.

Engaging in positive activities, like making other behavioral changes, is also more successful when the doers of positive activities have social support (Bandura, 1986). For example, participants who received autonomy-supporting messages from a peer while performing kind acts saw larger improvements in happiness than those who did not receive social support or who performed a control activity (Della Porta et al., 2012). Similarly, students who read an empathetic peer testimonial about the challenges of an optimism-boosting exercise experienced greater increases in positive affect than all other groups (Layous, Nelson, & Lyubomirsky, 2012). The results from these two studies indicate that even virtual social support (e.g., through social media) can bolster the benefits of positive activities.

Factors like variety and social support can conceivably be applied to any positive activity (see the list of variables under the "Across" heading in the "Activity Features" box in Fig. 1). Other factors, however, differentiate positive activities from one another (see the list of variables under the "Between" heading in the "Activity Features" box in Fig. 1) and hence may cause certain activities to work best for certain people. For example, positive activities can be relatively self-oriented (e.g., practicing optimism) or other-oriented (e.g., expressing gratitude). Collectivists might benefit more from otheroriented positive activities and individualists from selforiented activities (for suggestive evidence, see Boehm et al., 2011). Further, certain positive activities are social-behavioral in nature (e.g., being kind), whereas others are reflectivecognitive (e.g., savoring happy times), potentially benefitting particularly lonely and frazzled individuals, respectively. Finally, positive activities differ in their time orientation—they may be focused on the past (e.g., expressing gratitude), the present (e.g., savoring the moment), or the future (e.g., thinking optimistically; Sin & Lyubomirsky, 2009). Older adults might benefit more from reflecting on their legacies, whereas youths might benefit more from visualizing bright futures.

Features of the person. Overall, positive activities that have optimal features are more likely to promote durable wellbeing. However, attributes of the person engaging in the activity also matter. As illustrated in Figure 1 (see the "Person Features" box), for people to benefit from a positive activity (or any self-improvement behavior, for that matter), they have to effortfully engage in it (Layous, Lee, et al., 2012; Lyubomirsky et al., 2011), be motivated to become happier (Deci & Ryan, 2000; Lyubomirsky et al., 2011), and believe that their efforts will pay off (Ajzen, 1991; Bandura, 1986; Layous, Nelson, & Lyubomirsky, 2012). For example, participants who deliberately chose to complete "happiness-increasing" exercises (rather than neutral ones) and who put more effort into them (as assessed by judges) showed bigger gains in well-being (Lyubomirsky et al., 2011).

In addition to people's motivation, efforts, and beliefs, people's personalities may affect how much they stand to gain from positive activities. Although the association between personality and happiness is long established (Costa & McCrae, 1980), researchers are only now exploring whether individuals' personalities influence positive activities' success. Recent evidence has shown that people who are highly extraverted and open to experience are especially predisposed to benefit from positive activities (Senf & Liau, 2012).

People's initial affective state when they embark on a positive activity also predicts how much they will benefit from it, but the evidence in this area is mixed. Some research has suggested that people low in positive affect (Froh, Kashdan, Ozimkowski, & Miller, 2009) or with moderate depressive symptoms (Seligman et al., 2005) benefit the most from positive activities, perhaps because they have more room to improve.

60 Lyubomirsky, Layous

Other evidence has indicated that moderately depressed individuals have deficits that prevent them from taking full advantage of some positive practices—such individuals, for example, benefit more from simple pleasant activities than from reflective ones (Sin, Della Porta, & Lyubomirsky, 2011). More research is needed to identify specific activities that are optimal for individuals within specific affective ranges.

The degree to which people perceive support from their own social network—especially support for their pursuit of happiness—is also likely to affect their ability to reap rewards from positive activities. We predict that happiness seekers who feel more supported by close others in their positive practices will see relatively greater improvements in well-being (see Wing & Jeffery, 1999, for parallel findings regarding weight loss).

Finally, demographic variables may influence gains in well-being from positive activities. For example, older people benefit relatively more than younger people from practicing a range of positive activities (Sin & Lyubomirsky, 2009), perhaps because they have more time to commit to the activities, take them more seriously, and engage in them more effortfully. Also, Westerners gain more from positive activities (namely, expressing gratitude and optimism) than Easterners do (Boehm et al., 2011), possibly because Westerners value and express happiness more (Diener, Suh, Smith, & Shao, 1995; Tsai, Knutson, & Fung, 2006). Further research should examine the role of other demographic factors, such as sex and socioeconomic status. For example, people struggling to afford food are likely to regard the pursuit of happiness as frivolous.

**Person-activity fit.** Although features of positive activities and features of the doers of positive activities broadly influence those activities' success at increasing happiness, certain types of activities are better for certain types of people. We predict that activity features and person features interact with one another (note the overlap of the "Activity Features" and "Person Features" boxes in Fig. 1). This notion of the importance of person-activity fit is supported by studies showing that the degree to which participants report enjoying a positive activity predicts how often they complete that activity (Schueller, 2010) and how much happiness they derive from it (Lyubomirsky, 2008).

#### Mechanisms

Although research has begun to reveal the conditions under which positive activities increase well-being, investigators still know little about how positive activities work and about the processes by which they boost well-being. We posit that positive activities are positive for an individual only to the extent that they stimulate increases in positive emotions, positive thoughts, positive behaviors, and need satisfaction, which in turn increase happiness. For example, increases in positive emotions triggered by a meditation-based positive activity mediated the relationship between the activity and

subsequent improvements in such personal resources as social relationships and physical health. These enhanced personal resources then boosted life satisfaction (Fredrickson et al., 2008). Engaging in positive activities also leads people to construe life events more positively. In one study, people who expressed gratitude and optimism reported their weekly experiences as being more satisfying over time, although ratings by independent raters did not demonstrate any objective improvement in the experiences (Dickerhoof, 2007). Further, positive activities can prompt people to engage in unrelated positive behaviors. For example, participants instructed to "count their blessings" increased their time spent exercising (Emmons & McCullough, 2003).

Practicing positive activities may also boost well-being by satisfying basic psychological needs, such as autonomy (control), relatedness (connectedness), and competence (efficacy; Deci & Ryan, 2000). In a 6-week intervention, expressing gratitude and optimism increased self-reported autonomy and relatedness (but not competence), which in turn increased life satisfaction (Boehm, Lyubomirsky, & Sheldon, 2012). In a study that directly manipulated these hypothesized mediators, people who engaged in autonomy- and relatedness-fulfilling activities saw greater increases in well-being than did people who focused on their life circumstances (Sheldon et al., 2010). More research is needed to determine the mediating role of competence and to investigate whether particular positive activities might be better suited to fulfilling particular needs.

#### **Future Directions and Conclusions**

Happiness seekers no longer need rely on unsubstantiated advice from self-help books, magazine sidebars, or infomercials. Instead, a growing body of evidence based on randomized controlled experiments demonstrates that relatively simple intentional changes in one's thoughts and behaviors can precipitate meaningful increases in happiness. Furthermore, as highlighted by the positive-activity model, investigators have begun to pinpoint (albeit likely nonexhaustively) the conditions under which positive activities are most efficacious and the processes by which they work. The model also reveals gaps in empirical evidence (e.g., regarding the role of social support) and conflicting findings (e.g., regarding the role of one's initial affective state) that await further research.

The positive-activity model addresses activity features and person features that influence the success of positive activities as people perform them. However, future research should also investigate how people select positive activities in the first place. For example, individuals high in sensation seeking might choose varied and novel (rather than similar and familiar) positive activities, and mildly depressed individuals might choose relatively undemanding activities.

Our model could also be extended to predict the extent to which doers of positive activities persist at them—and hence continue to reap benefits (Cohn & Fredrickson, 2010; Lyubomirsky et al., 2011; Seligman et al., 2005). One of the

Positive-Activity Model 61

obstacles to both continued engagement and continued benefits is hedonic adaptation; in other words, the rewards of positive activities dissipate with time (Lyubomirsky, 2011; Sheldon et al., 2012). To avoid adaptation, happiness seekers should vary their positive practices (which activities to perform, how many, how often, and with whom). Additionally, the more motivated individuals are to pursue happiness (Lyubomirsky et al., 2011), the more their families or cultures endorse this pursuit, and the more resources (e.g., time, effort) they have to accomplish it, the more likely they are to maintain their efforts (but see Gruber, Mauss, & Tamir, 2011).

In sum, as researchers begin to understand the how, what, when, and why of happiness-increasing strategies, they will become better positioned to provide empirically based advice to the millions of people—in family, school, work, health, organizational, or mental health settings—who yearn to be happier.

#### **Recommended Reading**

- Gruber, J., Mauss, I. B., & Tamir, M. (2011). (See References). A discussion of four conditions under which the pursuit of happiness is detrimental.
- Layous, K., & Lyubomirsky, S. (in press). The how, who, what, when, and why of happiness: Mechanisms underlying the success of positive interventions. In J. Gruber & J. Moskowitz (Eds.), *Light and dark side of positive emotion*. Oxford, England: Oxford University Press. A chapter providing a detailed discussion of the moderators and mediators proposed by the positive-activity model.
- Lyubomirsky, S. (2008). (See References). A highly accessible, empirically driven overview of happiness-increasing strategies.
- Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). (See References). A study illustrating original research on the benefits of multiple representative positive activities.
- Sheldon, K. M., Kashdan, T. B., & Steger, M. F. (Eds.). (2011). Designing positive psychology: Taking stock and moving forward. New York, NY: Oxford University Press. An edited volume with chapters highlighting cutting-edge research related to positive activities and well-being.

#### **Declaration of Conflicting Interests**

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

#### References

- Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Processes, 50, 179–211.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall.
- Boehm, J. K., Lyubomirsky, S., & Sheldon, K. M. (2011). A longitudinal experimental study comparing the effectiveness of happiness-enhancing strategies in Anglo Americans and Asian Americans. Cognition & Emotion, 25, 1263–1272.
- Boehm, J. K., Lyubomirsky, S., & Sheldon, K. M. (2012). [The role of need satisfying emotions in a positive activity intervention]. Unpublished raw data.

Cohn, M. A., & Fredrickson, B. L. (2010). In search of durable positive psychology interventions: Predictors and consequences of long-term positive behavior change. *Journal of Positive Psychology*, 5, 355–366.

- Costa, P. T., & McCrae, R. R. (1980). Influence of extraversion and neuroticism on subjective well-being: Happy and unhappy people. *Journal of Personality and Social Psychology*, 38, 668–678.
- Deci, E. L., & Ryan, R. M. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and wellbeing. *American Psychologist*, 55, 68–78.
- Della Porta, M. D., Jacobs Bao, K., & Lyubomirsky, S. (2012). Does supporting autonomy facilitate the pursuit of happiness? Results from an experimental longitudinal well-being intervention. Manuscript submitted for publication.
- Dickerhoof, R. M. (2007). Expressing optimism and gratitude: A longitudinal investigation of cognitive strategies to increase wellbeing. *Dissertation Abstracts International*, 68, 4174 (UMI No. 3270426).
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, 55, 34–43
- Diener, E., Suh, E. M., Smith, H., & Shao, L. (1995). National differences in subjective well-being: Why do they occur? *Social Indicators Research*, 34, 7–32.
- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology*, 84, 377–389.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, *56*, 218–226.
- Fredrickson, B. L., Cohn, M. A., Coffey, K. A., Pek, J., & Finkel, S. M. (2008). Open hearts build lives: Positive emotions, induced through loving-kindness meditation, build consequential personal resources. *Journal of Personality and Social Psychology*, 95, 1045–1062.
- Froh, J. J., Kashdan, T. B., Ozimkowski, K. M., & Miller, N. M. (2009). Who benefits the most from a gratitude intervention in children and adolescents? Examining positive affect as a moderator. *Journal of Positive Psychology*, 4, 408–422.
- Glaros, N. M., & Janelle, C. M. (2001). Varying the mode of cardiovascular exercise to increase adherence. *Journal of Sport Behav*ior, 24, 42–62.
- Gruber, J., Mauss, I. B., & Tamir, M. (2011). A dark side of happiness? How, when, and why happiness is not always good. *Perspectives on Psychological Science*, 6, 222–233.
- King, L. A. (2001). The health benefits of writing about life goals. Personality and Social Psychology Bulletin, 27, 798–807.
- Layous, K., Lee, H. C., Choi, I., & Lyubomirsky, S. (2012). Culture matters when designing a successful positive activity: A comparison of the United States and South Korea. Manuscript submitted for publication.
- Layous, K., Nelson, S. K., & Lyubomirsky, S. (2012). What is the optimal way to deliver a positive activity intervention? The case

62 Lyubomirsky, Layous

of writing about one's best possible selves. *Journal of Happiness Studies*. Advance online publication. doi:10.1007/s10902-012-9346-2

- Lykken, D., & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science*, 7, 186–189.
- Lyubomirsky, S. (2001). Why are some people happier than others? American Psychologist, 56, 239–249.
- Lyubomirsky, S. (2008). The how of happiness: A scientific approach to getting the life you want. New York, NY: Penguin Press.
- Lyubomirsky, S. (2011). Hedonic adaptation to positive and negative experiences. In S. Folkman (Ed.), Oxford handbook of stress, health, and coping (pp. 200–224). New York, NY: Oxford University Press.
- Lyubomirsky, S., Dickerhoof, R., Boehm, J. K., & Sheldon, K. M. (2011). Becoming happier takes both a will and a proper way: An experimental longitudinal intervention to boost well-being. *Emotion*, 11, 391–402.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131, 803–855.
- Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology*, *9*, 111–131.
- Parks, A., Della Porta, M., Pierce, R. S., Zilca, R., & Lyubomirsky, S. (2012). Pursuing happiness in everyday life: The characteristics and behaviors of online happiness seekers. *Emotion*. Advance online publication. doi:10.1037/a0028587
- Schueller, S. M. (2010). Preferences for positive psychology exercises. *The Journal of Positive Psychology*, *5*, 192–203.
- Schueller, S. M., & Parks, A. (2012). Disseminating self-help: Positive psychology exercises in an online trial. *Journal of Medical Internet Research*, 14, e63.

- Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, 60, 410–421.
- Senf, K., & Liau, A. K. (2012). The effects of positive interventions on happiness and depressive symptoms, with an examination of personality as a moderator. *Journal of Happiness Studies*. Advance online publication. doi:10.1007/s10902-012-9344-4
- Sheldon, K. M., Abad, N., Ferguson, Y., Gunz, A., Houser-Marko, L., Nichols, C. P., & Lyubomirsky, S. (2010). Persistent pursuit of need satisfying goals leads to increased happiness: A 6-month experimental longitudinal study. *Motivation and Emotion*, 34, 39–48.
- Sheldon, K. M., Boehm, J. K., & Lyubomirsky, S. (2012). Variety is the spice of happiness: The hedonic adaptation prevention (HAP) model. In I. Boniwell & S. David (Eds.), Oxford handbook of happiness (pp. 901–914). Oxford, England: Oxford University Press.
- Sin, N. L., Della Porta, M. D., & Lyubomirsky, S. (2011). Tailoring positive psychology interventions to treat depressed individuals. In S. I. Donaldson, M. Csikszentmihalyi, & J. Nakamura (Eds.), Applied positive psychology: Improving everyday life, health, schools, work, and society (pp. 79–96). New York, NY: Routledge.
- Sin, N. L., & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: A practice friendly meta-analysis. *Journal of Clinical Psychology*, 65, 467–487.
- Tsai, J. L., Knutson, B., & Fung, H. H. (2006). Cultural variation in affect valuation. *Journal of Personality and Social Psychology*, 90, 288–307.
- Wing, R. R., & Jeffery, R. W. (1999). Benefits of recruiting participants with friends and increasing social support for weight loss and maintenance. *Journal of Consulting and Clinical Psychology*, 67, 132–138.