Making Happiness Last:

Using the Hedonic Adaptation Prevention Model to Extend the Success of Positive Interventions

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Abstract

Any boosts in happiness achieved through happiness-increasing activities tend to abate with time. Hedonic adaptation is thus a formidable barrier to attaining lasting happiness, but it is not insurmountable. Certain positive activities are either better suited for thwarting adaptation or can be modified in ways to forestall adaptation. These possibilities, guided by the hedonic adaptation prevention model, are described below. People can increase the number of positive events and emotions they experience by engaging in particular activities or by making those activities more social. Aspirations can be lowered by pursuing intrinsic goals and monitoring one's optimal happiness level and reference point. Variety can be used to augment happiness-increasing programs by completing multiple activities simultaneously, alternating among activities, and altering their execution. Finally, people can heighten their appreciation by performing gratitude-based activities, doing activities that call attention to life's positives, and keeping reminders of previously-completed positive activities. (146 words)

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So basic is the idea of the pursuit of happiness that the Declaration of Independence positions it on equal footing with life and liberty. Yet, as the never-ending supply of self-help books suggests, people undertake this journey with some difficulty. Many studies have demonstrated the efficacy of various positive activities in raising levels of well-being (elsewhere in this volume; see also Sin & Lyubomirsky, 2009, for a meta-analysis). However, the answer is clearly not as simple as implementing a positive activity and becoming happier forever. Any boosts in happiness that do occur are likely to abate with time, due to a process called hedonic adaptation (Frederick & Loewenstein, 1999; Lyubomirsky, 2011; Wilson & Gilbert, 2008). Thus, hedonic adaptation serves as a barrier to becoming lastingly happier – unwelcome news to happiness seekers – but, fortunately, it also carries the keys to its own undoing. Just as mapping a virus's mechanisms enables a microbiologist to design a potent new drug, by learning about hedonic adaptation, psychologists can craft positive activities that resist adaptation and produce sustainable well-being.

Becoming Happier

Before researchers can begin developing ways to increase people's happiness, they must ask the question of whether such increases are even possible. The sustainable happiness model (Lyubomirsky, Sheldon, & Schkade, 2005) addresses this question by examining the contributions of genetic factors, life circumstances, and intentional activities to people's happiness. Although uncontrollable factors such as genetics and life circumstances explain half of the variance in individual's levels of happiness, more than a third is left unexplained and may be bolstered by intentional activities. Because intentional activities are performed deliberately

and volitionally, they are under the individual's control. They include positive activities that are carried out in order to become happier, such as writing gratitude letters (Lomas et al., in this volume; Boehm, Lyubomirsky, & Sheldon, 2011; Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2011), counting one's blessings (Lyubomirsky, Sheldon, & Schkade, 2005), performing acts of kindness (Sheldon, Boehm, & Lyubomirsky, 2012; Lyubomirsky et al., 2005), reliving positive events (Lyubomirsky, Sousa, & Dickerhoof, 2006), savoring positive experiences (Smith, Harrison, Kurtz & Bryant, in this volume), building strengths (Louis & Lopez, in this volume), promoting meaning and purpose (Shin & Steger, in this volume), and nurturing relationships (Lyubomirsky, 2008).

Psychologists from multiple laboratories have empirically studied a variety of positive activity-based interventions. A meta-analysis of these results suggests that positive interventions are, on average, effective at increasing well-being and decreasing depression (Sin & Lyubomirsky, 2009), providing persuasive evidence that it is possible to become happier.

Barriers to Becoming Happier

Although performing positive activities has been found to bring about increases in happiness, research on hedonic adaptation suggests that those increases may subside with time. To our knowledge, the longest published intervention included follow-ups of only 15 months (Cohn & Fredrickson, 2010), so the standard rate of adaptation to positive interventions is difficult to determine. One positive intervention study showed decreases in depression and increases in life satisfaction at a 6- month follow-up, but by the 1-year follow-up, participants had already started to approach baseline levels (Seligman, Rashid, & Parks, 2006). Researchers have shown that people adapt to negative events such as unemployment (Lucas, Clark, Georgellis, & Diener, 2004), divorce (Lucas, 2005), and widowhood (Lucas, Clark, Georgellis,

& Diener, 2003), as well as to positive events such as starting a new job (Boswell, Boudreau, & Tichy, 2005) and getting married (Lucas et al., 2003). Given the variety of circumstances subject to hedonic adaptation, it seems likely that people would adapt to positive interventions as well. In this way, hedonic adaptation may serve as an under-studied obstacle to sustainably increasing happiness via positive activities.

According to the hedonic adaptation prevention model (Lyubomirsky, 2011; Sheldon & Lyubomirsky, 2012; see Figure 1), adaptation unfolds via two paths – through decreases in positive emotions (bottom path) and through increases in aspirations (top path). In this first path, when a person experiences a positive change that involves initiating a new positive activity, such as performing acts of kindness for people around her on a regular basis, that change will generate a stream of positive events, such as helping a friend prepare for a test, or more generally, meeting new people and thinking of new kind acts to perform. These positive events will trigger increases in positive emotions, such as gratitude, inspiration, and appreciation, which then boost well-being. However, over time, practicing kindness produces fewer and fewer novel positive events, and thus fewer positive emotions, so well-being will begin to decline or fail to rise. For example, a person performing kind acts for his neighbors will likely run out of ideas for novel kind acts, causing him to repeat previous deeds. As a result, he will obtain less enjoyment than the first time he performed a kindness, when the act – and its reward – was exciting, fresh, and new. Thus, the person begins to adapt. In this case, positive events and positive emotions, which are both associated with higher well-being, mediate the adaptation process.

As illustrated in Figure 1, another path that underlies the process of adaptation involves a rise in people's aspiration levels, which typically occurs after they experience or initiate a positive change (e.g., starting a positive activity) and the subsequent increase in positive events.

Aspirations, in this context, refer to people's hopes and desires regarding the positive change. Over time, the positive events resulting from the positive change begin to become expected and predictable. Predictable events are less interesting or stimulating than unexpected or novel events, and thus do not lift a person's well-being to the same degree. Higher aspirations, then, are associated with lower well-being. For example, after the person who practices kindness improves her relationships and feels more compassion and competence, she begins to expect to experience those events and to feel those emotions. As a result, every kind act she performs leads to less of a gain in well-being, because her standard for what is required to maintain the same level of well-being has been raised. Those positive events and emotions she has begun to experience have become her new "normal," and thus she requires even greater numbers of events and emotions to increase in well-being (Kesebir & Diener, 2008, Gruber, Mauss, & Tamir, 2011). She may even begin expecting and feeling deserving of gratitude from those she helps, so when those higher aspirations are not met, the result may be disappointment or letdown.

The hedonic adaptation prevention model posits that both paths underlying the course of adaptation are moderated by several key variables, including variety and appreciation (see Figure 1; see also Lyubomirsky, 2011). First, the more varied the positive events, the longer it takes to adapt to them. A joke told twice garners few laughs, but a comedian with a wealth of material keeps us chuckling. So a person who helps others in different ways adapts less rapidly than someone who always sends flowers. Second, the less people appreciate (i.e., are aware of and grateful for) a positive change, whether a new hobby, relationship, or car, the more quickly they adapt. Appreciation may slow adaptation by guarding against social comparisons and increasing expectations (Layard, 2005). For example, if the individual stops being aware and appreciative of the rewards she obtains from performing acts of kindness – that is, she begins to take those

rewards for granted – then completing this activity will produce less of a boost in her well-being. Thus, striving to increase appreciation of positive changes, as well as injecting variety, may be critical to forestalling adaptation.

How to Sustain Happiness Through Positive Activities

Fortunately, hedonic adaptation is not an insurmountable barrier to sustainable happiness. Researchers can apply their knowledge of the mediators and moderators of adaptation to maximize the effectiveness of positive interventions. Indeed, some interventions have already tested the role of these variables. We discuss these previous relevant studies regarding activities that may be relatively more resistant to adaptation, as well as make suggestions for modifications that can be made to existing interventions to decelerate the adaptation process.

Positive Emotions and Events

As mentioned above, two important mediators of hedonic adaptation are positive events and positive emotions. Experiencing more positive events (e.g., compliments), and consequently more positive emotions (e.g., gladness), has been theorized to maintain increases in well-being (Lyubomirsky, 2011; Sheldon & Lyubomirsky, 2012). Thus, any one positive activity needs to produce a great deal of positive events and positive emotions in order for the individual to sustain any boost obtained from that activity. Research from our laboratory has supported this idea, showing that both more positive emotions (chosen from a checklist; e.g., “enthusiasm” or “curiosity”) and more positive events (listed by participants; e.g., “I told a joke and everyone laughed”) predict slower adaptation rates when people receive a stream of personalized positive feedback about their top strengths (e.g., “You top strength is humor”; Boehm, 2010). Furthermore, another study showed that when participants continued to think about a positive change they had made(e.g., began an exercise program), they experienced more positive

emotions associated with that change, and thus remained happier (Sheldon & Lyubomirsky, 2012).

Choosing the right activities. Notably, certain types of activities may be better at producing streams of positive events and emotions than others. For example, performing acts of kindness may be especially powerful at generating lots of positive events and emotions. Philanthropic acts have been shown to activate brain areas that are associated with pleasure and euphoria (Moll et al., 2006). Also, by performing acts of kindness, people may establish new social connections, strengthen existing relationships, or participate in activities in which they do not normally participate. Each of these possibilities may be associated with new positive experiences or events. Research from our laboratory suggests that performing acts of kindness is indeed associated with increases in well-being (Lyubomirsky et al., 2005).

A related positive activity that is likely to elicit many positive emotions and events is nurturing relationships. Relationships are complicated, dynamic, and ever-changing, and thus involve abundant events and changes, both positive and negative. By focusing on their relationships and trying to improve them, individuals may experience more frequent positive events and emotions, thereby slowing adaptation. For example, if a husband decides he wants to improve his relationship with his wife, he may start to show her more affection, take her out on regular dates, or surprise her with flowers. In return, his wife may reciprocate his affection and show more appreciation for him and the effort he is putting into their marriage. Thus, due to the social nature of this exercise, a husband will enjoy more time together (i.e., positive events) and feel more affection and love (i.e., positive emotions) from his acts directly, but also from his wife's reactions (e.g., feeling appreciated). Furthermore, his wife is likely to experience comparable events and emotions, so the benefits extend not only to the person who chooses to

engage in this activity, but to his partner as well. Thus, the dynamic nature of social relationships may provide individuals unique opportunities to multiply positive events and positive emotions in their lives.

A third strategy or activity that is likely to produce copious positive events and emotions is the pursuit of goals that are intrinsic and self-determined. Intrinsic, self-determined goals are those that people work toward because they enjoy doing so, rather than chasing the goal for external, controlled reasons (Deci & Ryan, 2000; Sheldon & Elliott, 1999; Sheldon & Kasser, 1995). The pursuit of intrinsic, self-determined goals is associated with increased happiness because such pursuits accrue positive experiences (see Sheldon, 2002, for a review). Consider a young woman who wishes to become a doctor because she enjoys learning about medicine, is a good student, and likes helping others. In this case, her goal is intrinsically-motivated, but the same goal would be extrinsically-motivated if she aspired to be a doctor for the high salary or prestige. By enjoying the process, the future doctor experiences many more positive events and emotions than if she worked for the goal purely for external reasons. Thus, if she chooses to increase her happiness by pursuing intrinsic goals – a type of positive activity – she is much less likely to adapt to that activity, and to remain happier for longer, than someone who chooses to pursue extrinsic goals.

Modifying activities. One enhancement that could be made to most positive interventions to slow adaptation is to make the intervention social. For example, people could participate in the intervention with a friend rather than by themselves. By adding a social element, the experimenter increases opportunities for a greater variety and number of positive experiences and emotions. For example, a person who decides to begin performing regular acts of kindness with a friend may discuss the acts he performed each week and obtain positive

feedback from his friend. His friend may also give him new ideas. By experiencing more positive events and positive emotions, the pair may also be less likely to quit their happiness-enhancing program, because they are not adapting to its rewards and are continuing to benefit from doing acts of kindness week after week. Thus, the social element of the activity may allow them to sustain their increases in happiness for a longer period of time.

Aspirations

Another key mediator of hedonic adaptation is aspiration level. As described above, higher aspirations speed up adaptation because as they increase, people need more positive events and emotions just to maintain their original level of happiness. For example, if a woman is striving to become happier by imagining her best possible self once a week, she may experience a number of positive events the first time she completes the exercise. However, as she continues to do so week after week, she may begin to expect to experience those same events, which will likely become less intense and less frequent as the exercise becomes less novel. As a result, her boosts in happiness will become less frequent, and she will gradually return to the level of well-being she experienced before she started. She may also raise her aspiration levels, so that she starts to anticipate feeling an even larger boost each time and to aspire to ever-higher levels of happiness. As it is unlikely that her activity will continue to meet those raised expectations, her well-being will suffer as a result, bringing her closer to her baseline happiness levels.

When designing happiness interventions, it is important for researchers to keep the optimal level of happiness in mind. If participants' aspirations about the happiness level they wish to achieve are too high, then no positive intervention is going to have long-term benefits, because they are never going to be satisfied with the results and will always want more. Thus,

participants should approach interventions with reasonable aspirations or expectations about the potential outcomes of the positive activities they will be prompted to perform.

An effective way to avoid the emergence of ever-higher aspirations may be to pursue intrinsic or self-determined goals. If individuals enjoy the pursuit of the goal, rather than just its attainment, they will be less focused on the end product of "increased happiness" and thus less likely to develop high outcome aspirations. Supporting this idea, in one study, participants who completed positive activities for intrinsic reasons reported greater increases in well-being than those with extrinsic reasons (Dickerhoof, 2007). Thus, as discussed earlier, intrinsic goal pursuit may be associated with larger boosts in happiness than pursuing extrinsic goals, which slows adaptation.

Finally, to avoid increasing aspirations as individuals complete a particular happiness-enhancing activity, they could make an effort to remain conscious of their reference point. That is, as a person progresses in performing positive activities, he may begin to compare his happiness this week to his happiness last week, rather than to his initial happiness level. Because he is likely to experience the biggest boost in happiness near the beginning of the intervention, he may be disappointed when later weeks provide a lesser boost. If he simply takes time to remember where he started, he may remain happier than if he keeps shifting his reference point to the previous week's level.

Variety

As discussed earlier, an abundance of positive events and emotions generated by a particular positive activity – whether that activity involves committing acts of kindness, writing gratitude letters, or pursuing intrinsic goals – leads to increases in well-being. This relationship, however, is moderated by variety, such that the more variable the positive events and emotions,

the longer the boost in well-being is maintained. If a person decides to express gratitude more frequently, but ends up writing gratitude letters to the same person every week, he will obtain less and less of a boost in happiness with each letter. If he had written to different people each week – and focused on different reasons that he is thankful – then the boost from each letter would have remained more constant, allowing him to maintain the increase in happiness from the positive activity.

A number of studies have provided empirical support for the importance of variety. For example, one investigation examined how people seek to become happier in the real world by engaging in positive activities (Parks, Della Porta, Pierce, Zilca, & Lyubomirsky, in press, Study 2). The researchers found that participants, on average, were simultaneously undertaking seven different activities to increase their happiness. Additionally, completing a greater number of different happiness activities on an iPhone application predicted increases in positive mood (Study 3). Thus, variety in what people do in their real lives as they strive to become happier is both common and efficacious. Finally, in an experimental study, participants who completed different acts of kindness each week experienced increases in happiness, whereas those who performed the same act each week did not (Sheldon, Boehm, & Lyubomirsky, 2012).

In one happiness intervention, participants were asked to make changes in either their circumstances or activities. Those who reported more variety in their lives after making the change experienced larger increases in happiness (Sheldon & Lyubomirsky, 2009). Furthermore, those assigned to make a change to their activities (e.g., joining a club) were rewarded with a larger boost in well-being than those assigned to make a change to their circumstances (e.g., making a purchase). The experiences associated with changes in activities are likely more variable than those resulting from changes in circumstances, thus the larger boost. Joining a club

may entail meeting new people, making friends, learning a new skill, or spending time doing something one enjoys. Making a new purchase is likely to be associated with fewer unique experiences, which are often limited to interacting with the purchased item. Consequently, the individual is less likely to adapt to changes in activities due to the greater variety in experiences.

These studies provide examples for how people can modify the ways that they engage in positive activities, such that their well-being gains are sustained. First, completing multiple activities at once (unlike most experimental settings where a single activity is completed at a time) may lead to larger and longer-lasting happiness boosts. This is apparently already common in people's real-world behavior (Parks et al., in press, Study 2). A person who engages in multiple activities will likely obtain larger boosts in well-being than if she engages in just one activity, and therefore it will take longer for her well-being to return to baseline levels. Also, because it takes longer to become bored when performing a variety of activities, she may continue participating in those activities for longer, thus maintaining the well-being boost.

Second, if people do perform the same activity each week, it is important that they do not to carry it out in the same way each time. For example, if a person chooses to improve his romantic relationship, he can vary the activity by focusing on being a better listener the first week, writing his wife a love letter the next week, and then giving his wife a thoughtful present. Choosing different types of actions to improve his relationship will increase the variability of the activity and thus slow adaptation.

A third way to strengthen the effectiveness of a happiness-increasing program is to alternate which activities are performed. A person could begin an intervention by performing acts of kindness for a couple of weeks, then switch to writing letters of gratitude, and so on. By alternating or cycling through activities, the individual has less opportunity to adapt to each

individual activity, and the resumption of an old activity may reset the adaptation process. Researchers have found that interrupting a positive activity increases peoples' enjoyment of the activity, presumably because the distraction restarts the adaptation process (Nelson & Meyvis, 2008). Furthermore, the newness of each activity may generate a larger boost, which might prolong the return to baseline. In this way, varying the activities may decelerate adaptation.

Appreciation

Appreciation is another important moderator of the hedonic adaptation process. Appreciating a life change, such as beginning a new positive activity or set of activities, slows down adaptation, allowing people to sustain the boost in happiness from that change. In an intervention where participants made a change to either their circumstances or activities, those who reported maintaining awareness of the change (regardless of which type) experienced more positive moods than those who did not remain aware of the change (Sheldon & Lyubomirsky, 2009). Thus, if a person stops to think about and appreciate her positive change, she will maintain her increased happiness for longer. As Allen Ginsberg once said, "You own twice as much rug if you're twice as *aware* of the rug" (2000, pp. 145-146). That is, if you are not aware of what you have, then it is as if you do not actually have it. Because awareness and attention are so integral to people's experiences (James, 1890), being mindful and aware of the positivity in their lives is a considerable contributor to their happiness.

Choosing the right activities. Increasing appreciation is the implicit or explicit goal of several types of positive activities. For example, researchers have tested the effects of increasing attention to positive life events via listing "three good things." In one such intervention, participants were asked to think of three good things that happened on a particular day, to write them down, and to describe why they occurred (Seligman, Steen, Park, & Peterson, 2005).

Participants who completed this exercise reported increases in well-being and decreases in depressive symptoms. The "three good things" exercise forces people to appreciate the good things that happened each day by attending to them, and, therefore, by appreciating them.

Gratitude-based positive activities also essentially work to increase appreciation. Counting one's blessings, for example, is associated with increases in well-being (Emmons & McCullough, 2003; Lyubomirsky et al., 2005; Lomas et al., this volume). In this exercise, people strive each day or each week to think about things for which they are grateful. The exercise compels them to appreciate recent events or experiences, thus fostering well-being gains. Gratitude-based activities force people to re-appreciate the individuals, circumstances, and experiences of their lives and therefore obtain the maximum enjoyment from life. This process slows adaptation by extending the boost in well-being that each of those individuals, circumstances, and experiences provides.

Modifying activities. Existing positive activities can be altered to directly increase appreciation in ways that maintain boosts in well-being long after the activity or set of activities are completed. For example, after penning a series of gratitude letters, the writer could maintain the positive benefits by saving the gratitude letters she has written, and an individual who spent several weeks writing down three good things that happened to her every day could display a master list of all those daily "three good things" lists in a prominent place where she might frequently see it. Finally, reminders during the course of an activity (especially after some time have passed) to savor or appreciate the activity as it is occurring may act as a way to infuse appreciation after it has begun to subside.

Conclusion

Human beings are liable to adapt to everything, and especially to positive changes in their lives. Although the pervasiveness of adaptation to positive changes may seem disheartening, the process is both functional and evolutionarily adaptive (Frederick & Loewenstein, 1999). When individuals experience high levels of positive or negative affect, they cannot help but focus on those intense feelings. This attention on their affect can make it difficult to function, because people need to focus on their basic needs in order to survive. Thus, humans hedonically adapt as a means of reducing high arousal, allowing them to direct their attention to more important needs, as well as to novel opportunities and threats. Furthermore, if people did not adapt to positive events or achievements, they might become complacent with the status quo and never strive to accomplish more.

Hedonic adaptation to the rewards of positive activities, however, holds few, if any, benefits, because these rewards are not likely to increase arousal to the point of impaired functioning. Fortunately, such adaptation can be actively and intentionally forestalled, even thwarted, if people heed the recommendations offered in this chapter. Individuals can increase the number of positive events and emotions experienced by engaging in certain types of positive activities (e.g., acts of kindness, nurturing relationships, intrinsic goal pursuit) or by making their positive activities more social in nature. Aspirations can be lowered or kept in check by pursuing intrinsic goals and keeping one's optimal happiness level and reference point in mind. Variety can be added to happiness-increasing programs by completing multiple activities at once, alternating which activities are performed, and performing the activities in a different way each time. Finally, people can augment their appreciation by completing activities that call their attention to the positives in their lives (e.g., savoring and listing "three good things") and gratitude-based activities (e.g., counting one's blessings and writing gratitude letters).

An activity that combined all of these elements is likely to provide the best opportunity for impeding adaptation. Accordingly, people who attempt happiness-enhancing programs should consider the risks of adaptation that present themselves at various points in their program, and researchers should do the same when designing happiness-enhancing interventions. Although the process of adaptation may seem inevitable, by attending to these problems, both practitioners and experimenters may be able to thwart the process of adaptation, and successfully increase happiness – if not forever, then for a very long time.

References

Boehm, J. K. (2010). Getting used to the good things in life: Hedonic adaptation to positive life events (Doctoral dissertation, University of California, Riverside, 2010). *Dissertation Abstracts International, 70*, 5229B.

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,* 1152-1167.

Boswell, W. R., Boudreau, J. W., & Tichy, J. (2005). The relationship between employee job change and job satisfaction: The honeymoon-hangover effect. *Journal of Applied Psychology, 90,* 882-892.

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.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 4,* 227-268.

Dickerhoof, R. (2007). *Expressing optimism and gratitude: A longitudinal investigation of cognitive strategies to increase well-being.* (Doctoral dissertation, University of California, Riverside, 2007). *Dissertation Abstracts International, 68*, 4174.

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.

Frederick, S. & Loewenstein, G. (1999). Hedonic adaptation. In D. Kahneman, E. Diener, & N.

Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 302-329). New York: Russell Sage Foundation.

Ginsberg, A. (2000). Letter to the Wall Street Journal. In B. Morgan (Ed.), *Deliberate prose: Selected essays 1952-1995* (pp. 145-146). New York: Harper Perennial.

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.

Kesebir, P. & Diener, E. (2008). In pursuit of happiness: Empirical answers to philosophical questions. *Perspectives on Psychological Science, 3,* 117–125.

Layard, R. (2005). *Happiness: Lessons from a new science*. New York: Penguin Press.

Lomas et al. (in press). To appear in Parks, A. (Ed.), *The handbook of positive interventions*. New York: Wiley-Interscience.

Louis & Lopez (in press). To appear in Parks, A. (Ed.), *The handbook of positive interventions*. New York: Wiley-Interscience.

Lucas, R. E. (2005). Time does not heal all wounds: A longitudinal study of reaction and adaptation to divorce. *Psychological Science, 16,* 945–950.

Lucas, R. E., Clark, A. E., Georgellis, Y., & Diener, E. (2003). Re-examining adaptation and the set point model of happiness: Reactions to changes in marital status. *Journal of Personality and Social Psychology, 84,* 527-539.

Lucas, R. E., Clark, A. E., Georgellis, Y., & Diener, E. (2004). Unemployment alters the set point for life satisfaction. *Psychological Science, 15*, 8-13.

Lyubomirsky, S. (2008). *The how of happiness: A scientific approach to getting the life you want*. New York: 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: 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., Sousa, L., & Dickerhoof, R. (2006). The costs and benefits of writing, talking, and thinking about life's triumphs and defeats. *Journal of Personality and Social Psychology, 90,* 692-708.

Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology, 9*, 111-131.

Moll, J., Krueger, F., Zahn, R., Pardini, M., de Oliveira-Souza, R., & Grafman, J. (2006). Human fronto-mesolimbic networks guide decisions about charitable donation. *Proceedings of the National Academy of Sciences, 103,* 15623-15628.

Nelson, L. D. & Meyvis, T. (2008). Interrupted consumption: Disrupting adaptation to hedonic experiences. *Journal of Marketing Research*, 45, 654-664.

Parks, A. C., Della Porta, M. D., Pierce, R. S., Zilca, R., & Lyubomirsky, S. (in press). Pursuing happiness in everyday life: A naturalistic investigation of online happiness seekers. *Emotion.*

Seligman, M. E. P., Rashid, T., & Parks, A. C. (2006). Positive psychotherapy. *American Psychologist, 61,* 774-788.

Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist, 60,* 410-421.

Sheldon, K. M. (2002). The self-concordance model of healthy goal-striving: When personal goals correctly represent the person. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 65-86). Rochester, NY: University of Rochester Press.

Sheldon, K. M., Boehm, J. K., & Lyubomirsky, S. (2012). Variety is the spice of happiness: The hedonic adaptation prevention (HAP) model. In Boniwell, I. & David, S. (Eds.), *Oxford handbook of happiness* (pp. 901-914). Oxford: Oxford University Press.

Sheldon, K. M., & Kasser, T. (1995). Coherence and congruence: Two aspects of personality integration. *Journal of Personality and Social Psychology, 68,* 531-543.

Sheldon, K. M., & Lyubomirsky, S. (2006b). How to increase and sustain positive emotion: The effects of expressing gratitude and visualizing best possible selves. *Journal of Positive Psychology, 1,* 73-82.

Sheldon, K. M., & Lyubomirsky, S. (2009). Change your actions, not your circumstances: An experimental test of the Sustainable Happiness Model. In B. Radcliff & A. K. Dutt (Eds.), *Happiness, economics, and politics* (pp. 324-342). New York: Edward Elgar.

Sheldon, K. M., & Lyubomirsky, S. (2012). The challenge of staying happier: Testing the Hedonic Adaptation Prevention (HAP) model. *Personality and Social Psychology Bulletin, 38,* 670-680.

Shin & Steger (in press). To appear in Parks, A. (Ed.), *The handbook of positive interventions*. New York: Wiley-Interscience.

Smith, Harrison, Kurtz, & Bryant (in press). To appear in Parks, A. (Ed.), *The handbook of positive interventions*. New York: Wiley-Interscience.

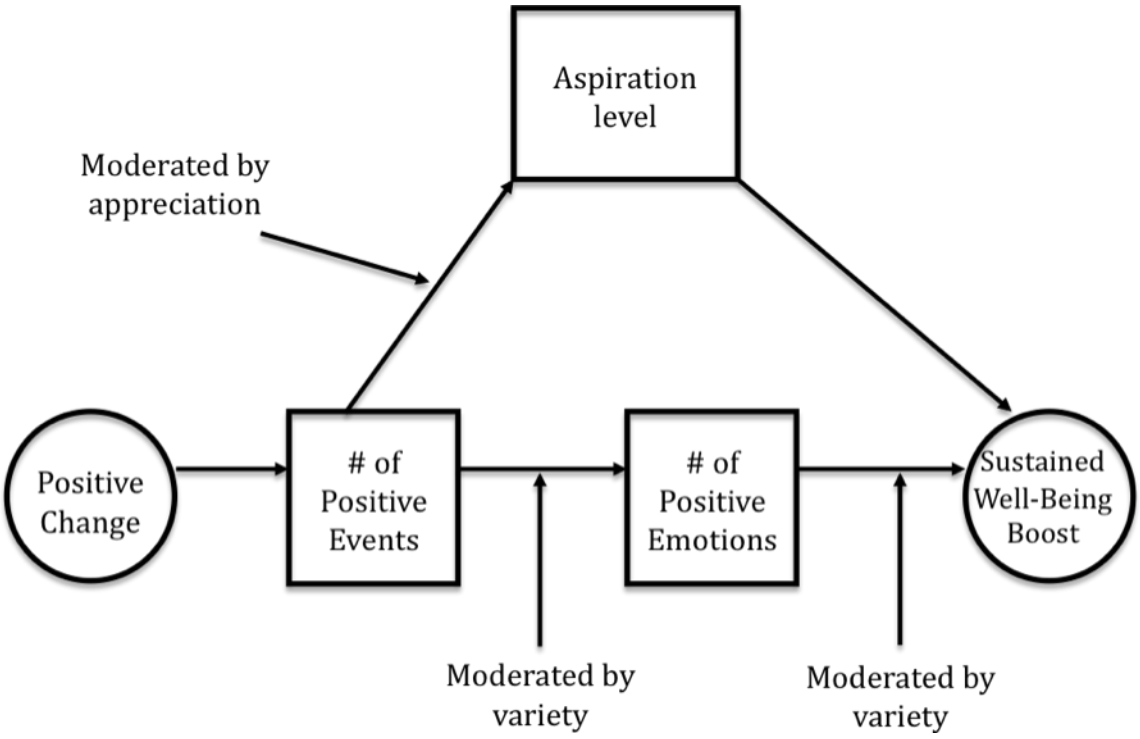
Sin, N. L., & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive activity interventions: A practice-friendly meta-analysis. *Journal of Clinical Psychology, 65,*467-487.

William, J. (1890). *Principles of psychology.* New York: Henry Holt and Company.

Wilson, T. D., & Gilbert, D. T. (2008). Explaining away: A model of affective adaptation. *Perspectives on Psychological Science, 3,* 370-386

Figure Captions

Hedonic adaptation prevention model. Adapted from "The challenge of staying happier: Testing the Hedonic Adaptation Prevention (HAP) model" by K. M. Sheldon & S. Lyubomirsky, 2012, *Personality and Social Psychology Bulletin, 38,* 670-680.


Aspiration level
Moderated by appreciation
Positive Change
# of Positive Events
# of Positive Emotions
Sustained Well-Being Boost
Moderated by variety
Moderated by variety