

## Pursuing Happiness: The Architecture of Sustainable Change

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The pursuit of happiness is an important goal for many people. However, surprisingly little scientific research has focused on the question of how happiness can be increased and then sustained, probably because of pessimism engendered by the concepts of genetic determinism and hedonic adaptation. Nevertheless, emerging sources of optimism exist regarding the possibility of permanent increases in happiness. Drawing on the past well-being literature, the authors propose that a person's chronic happiness level is governed by 3 major factors: a genetically determined set point for happiness, happiness-relevant circumstantial factors, and happiness-relevant activities and practices. The authors then consider adaptation and dynamic processes to show why the activity category offers the best opportunities for sustainably increasing happiness. Finally, existing research is discussed in support of the model, including 2 preliminary happiness-increasing interventions.

The pursuit of happiness holds an honored position in American society, beginning with the Declaration of Independence, where it is promised as a cherished right for all citizens. Today, the enduring U.S. obsession with how to be happy can be observed in the row upon row of popular psychology and self-help books in any major bookstore and in the millions of copies of these books that are sold. Indeed, many social contexts in the United States have the production of happiness and positive feelings as their primary purpose, and questions

such as “Are you happy?” and “Are you having fun?” fit nearly every occasion (Markus & Kitayama, 1994). Not surprisingly, the majority of U.S. residents rate personal happiness as very important (Diener, Suh, Smith, & Shao, 1995; Triandis, Bontempo, Leung, & Hui, 1990) and report thinking about happiness at least once every day (Freedman, 1978). Furthermore, the pursuit of happiness is no longer just a North American obsession, but instead it is becoming ever more global as people seek to fulfill the promises of capitalism and political freedom (Diener et al., 1995; Freedman, 1978; Triandis et al., 1990). It seems that nearly all people believe, or would like to believe, that they can move in an “upward spiral” (Sheldon & Houser-Marko, 2001) toward ever greater personal well-being.

Is the pursuit of happiness merely a bourgeois concern, a symptom of Western comfort and self-centeredness, a factor that has no real impact on psychological adjustment and adaptation? The empirical evidence suggests that this is not the case. Indeed, a number of researchers and thinkers have argued that the ability to be happy and contented with life is a central criterion of adaptation and positive mental health (e.g., Diener, 1984; Jahoda, 1958; Taylor & Brown, 1988). Bolstering this notion, Lyubomirsky and her colleagues recently com-

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This work was supported in part by grants from the Positive Psychology Network. We are grateful to Linda Houser-Marko, Kathleen Jamir, and Chris Tkach for conducting library research and to Shelley Taylor, David Sherman, and the other members of Psychology 421 for valuable comments on a draft.

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piled evidence showing that happiness has numerous positive byproducts that appear to benefit individuals, families, and communities (Lyubomirsky, King, & Diener, 2004; see also Fredrickson, 2001). Furthermore, Lyubomirsky et al.'s analysis revealed that happy people gain tangible benefits in many different life domains from their positive state of mind, including larger social rewards (higher odds of marriage and lower odds of divorce, more friends, stronger social support, and richer social interactions; e.g., Harker & Keltner, 2001; Marks & Fleming, 1999; Okun, Stock, Haring, & Witter, 1984), superior work outcomes (greater creativity, increased productivity, higher quality of work, and higher income; e.g., Estrada, Isen, & Young, 1994; Staw, Sutton, & Pelled, 1995), and more activity, energy, and flow (e.g., Csikszentmihalyi & Wong, 1991).

Further supporting the argument that subjective happiness may be integral to mental and physical health, happy people are more likely to evidence greater self-control and self-regulatory and coping abilities (e.g., Aspinwall, 1998; Fredrickson & Joiner, 2002; Keltner & Bonanno, 1997), to have a bolstered immune system (e.g., Dillon, Minchoff, & Baker, 1985; Stone et al., 1994), and even to live a longer life (e.g., Danner, Snowdon, & Friesen, 2001; Ostir, Markides, Black, & Goodwin, 2000). Also, happy people are not just self-centered or self-ish; the literature suggests that happy individuals instead tend to be relatively more cooperative, prosocial, charitable, and "other-centered" (e.g., Isen, 1970; Kasser & Ryan, 1996; Williams & Shiaw, 1999).

In summary, happy individuals appear more likely to be flourishing people, both inwardly and outwardly. Thus, we argue that enhancing people's happiness levels may indeed be a worthy scientific goal, especially after their basic physical and security needs are met. Unfortunately, however, relatively little scientific support exists for the idea that people's happiness levels can change for the better. For example, the happiness-boosting techniques proposed in the self-help literature generally have limited grounding in scientific theory and even less empirical confirmation of their effectiveness (Norcross et al., 2000). Consider a representative best seller, *You Can Be Happy No Matter What: Five Principles for Keeping Life in Perspective*, by Carlson (1997). Do the five princi-

ples work? Do some work better than others? Do the principles work better for some people than for others? Are any positive effects of the principles due, ultimately, to placebo effects? If the book actually helps people "get happier," does the happiness boost *last*? Although it is possible that some of the advice given in this and other similar books could well be appropriate and effective, the authors provide almost no empirical research in support of their claims.

One receives little more guidance from contemporary academic psychology. Of course, research psychologists have identified many predictors of people's happiness or subjective well-being. For example, well-being has been shown to be associated with a wide variety of factors, including demographic status (e.g., Argyle, 1999; Diener, Suh, Lucas, & Smith, 1999; Myers, 2000), personality traits and attitudes (e.g., Diener & Lucas, 1999), and goal characteristics (e.g., McGregor & Little, 1998). However, a limitation of previous research is that the vast majority of studies have been cross sectional and have reported between-subjects effects rather than investigating well-being longitudinally and examining within-subject effects. In addition, very few happiness intervention studies have been conducted. Thus, researchers still know surprisingly little about how to *change* well-being, that is, about the possibility of "becoming happier." Doubtless, part of the reason for this neglect is the difficulty of conducting longitudinal and intervention studies. The problem is further compounded by the tendency of applied mental health researchers to focus on pathology rather than on positive mental health (Seligman & Csikszentmihalyi, 2000) and by the thorny issues raised when theorists speculate on how people "should" live their lives to maximize their potential for happiness (Schwartz, 2000). However, we believe the principal reason for the neglect of this question is the considerable scientific pessimism over whether it is even *possible* to effect sustainable increases in happiness.

### Historical Sources of Pessimism

Three considerations serve to illustrate the depth of this pessimism. First is the idea of a *genetically determined set point (or set range) for happiness*. Lykken and Tellegen (1996) have provided evidence, based on twin studies

and adoption studies, that the heritability of well-being may be as high as 80% (although a more widely accepted figure is 50%; Braungart, Plomin, DeFries, & Fulker, 1992; Tellegen et al., 1988; cf. Diener et al., 1999). Whatever the exact coefficient, its large magnitude suggests that for each person there is indeed a chronic or characteristic level of happiness. Consistent with this idea, Headey and Wearing (1989) found, in a four-wave panel study, that participants tended to keep returning to their own baselines over time (see also Suh, Diener, & Fujita, 1996). Thus, although there may be substantial variation around this baseline level in the short term, in the long term people perhaps cannot help but return to their set point, or to the middle of their set range: "What goes up must come down" (a more detailed description of the happiness set point is provided later).

A second and closely related source of pessimism comes from the literature on personality traits. Traits are cognitive, affective, and behavioral complexes that are, by definition, consistent across situations and across the life span and therefore may account for part of the stability of the set point. In support of the latter assumption, McCrae and Costa (1990) have shown impressive long-term stability for the "Big Five" traits, including the two traits most closely related to well-being: neuroticism and extraversion. Specifically, people tend to maintain the same rank ordering in their levels of worry, rumination, and guilt, as well as in their levels of social engagement, enthusiasm, and self-confidence. Because of the close relation between psychological well-being and these personality characteristics, McCrae and Costa argued that people also tend to maintain the same relative level of happiness over time (see also Costa, McCrae, & Zonderman, 1987; Diener & Lucas, 1999).

A third source of pessimism arises from the concept of the *hedonic treadmill* (Brickman & Campbell, 1971), which suggests that any gains in happiness are only temporary, because humans so quickly adapt to change (see also Kahneman, 1999; Tversky & Griffin, 1991). Thus, although new circumstances may temporarily cause people to become happier or sadder, they rapidly adjust, and the effect of these new circumstances on happiness then diminishes quickly or even disappears entirely. For example, Brickman, Coates, and Janoff-Bulman

(1978) showed that, after 1 year, lottery winners were no happier than controls, and furthermore recent paralysis victims were not as unhappy as one would expect. Further evidence of hedonic adaptation comes from findings of remarkably small correlations between happiness and wealth (Diener & Lucas, 1999) and Myers's (2000) observation that while U.S. citizens' personal income has more than doubled in the past 50 years, their happiness levels have remained the same. The notion of an individual fighting against the effects of adaptation brings to mind an image of a pedestrian walking up a descending escalator. Although the improving circumstances of her life may propel her upward toward ever greater happiness, the process of adaptation forces her back to her initial state.

Together, these concepts and findings suggest that trying to become happier may be as futile as trying to become taller (Lykken & Tellegen, 1996). Indeed, some have argued that pursuing happiness may backfire altogether, if the pursuit becomes a conscious "extrinsic" goal that distracts people from enjoying the moment (Schooler, Ariely, & Loewenstein, in press; see also Sheldon, 2004). Moreover, striving for happiness may inevitably result in deep disappointment for many people. From this perspective, rather than seeking an upward spiral, maybe people would be better off simply accepting their current personality and happiness levels (McCrae & Costa, 1994). In Zen terms, perhaps one should try to *transcend* the pursuit of happiness rather than trying to maximize it (Gaskins, 1999). Indeed, a number of philosophical traditions embrace the notion that happiness should not be increased beyond an ideal level, one akin to a "Golden Mean" (Aristotle, 1974) between agony and ecstasy. To be sure, most people would undoubtedly reject an unrestrained, ceaseless pursuit of well-being.

### Present Sources of Optimism

Is the pursuit of happiness futile? We believe not. Despite the seemingly compelling reasons we have listed for pessimism regarding attempts to elevate levels of well-being, there are also compelling reasons for optimism. In the following, we briefly describe four sources of optimism, returning to consider some of them in greater detail later. First, some researchers have had success, albeit limited and short term, in

using interventions to increase happiness (e.g., Fava, 1999; Fordyce, 1977, 1983, Lichter, Haye, & Kammann, 1980; Sheldon, Kasser, Smith, & Share, 2002). The potential of happiness-enhancing interventions is further reflected in emerging research in the positive psychology tradition demonstrating that practicing certain *virtues*, such as gratitude (Emmons & McCullough, 2003), forgiveness (McCullough, Pargament, & Thoresen, 2000), and thoughtful self-reflection (King, 2001; Lyubomirsky, Sousa, & Dickerhoof, 2004), can bring about enhanced well-being. Furthermore, research documenting the long-term effectiveness of cognitive and behavioral strategies to combat negative affect and depression has encouraging implications for the possibility of elevating long-term happiness (e.g., Gloaguen, Cottraux, Cucherat, & Blackburn, 1998; Jacobson et al., 1996).

Second, many different *motivational* and *attitudinal* factors have been linked to well-being, factors that are presumably amenable to some volitional control. Examples of possible motivational factors include the successful pursuit of life goals that are intrinsic in content (e.g., Kasser & Ryan, 1996); concordant with a person's interests, motives, and values (Brunstein, Schultheiss, & Grassman, 1998; Sheldon & Elliot, 1999; Sheldon & Kasser, 1995); and internally consistent (e.g., Emmons & King, 1988; Sheldon & Kasser, 1995). Examples of potentially controllable attitudinal factors include the tendency to take an optimistic perspective on one's life situations (e.g., DeNeve & Cooper, 1998; McCrae & Costa, 1986), the inclination to avoid social comparisons and contingent self-evaluations (e.g., Lyubomirsky & Ross, 1997), and the tendency to feel a sense of optimism or efficacy regarding one's life (Bandura, 1997; Scheier & Carver, 1993; Seligman, 1991; Taylor & Brown, 1988).

A third reason for optimism is provided by recent findings that older people tend to be somewhat happier than younger people (Charles, Reynolds, & Gatz, 2001; Diener & Suh, 1998; Roberts & Chapman, 2000; Sheldon & Kasser, 2001). Specifically, both cross-sectional and longitudinal work has shown that older persons report higher life satisfaction and lower negative affect. Although these main effects do not always emerge, they are observed frequently enough to suggest that greater happiness can indeed be achieved over time, not

just by a few people but perhaps by the majority of people. Indeed, Carstensen's (1995) socio-emotional selectivity theory suggests that older people learn to structure their lives and pursue particular goals that maximize positive emotions, consistent with the proposal that people can learn to sustainably increase their well-being. Further supporting this notion are Sheldon and Kasser's (2001) results, which showed that age-related increases in well-being are in part mediated by volitional changes, including older people's ability to select more enjoyable and self-appropriate goals.

Yet another reason why genes are not necessarily destiny is that they appear to influence happiness indirectly, that is, by influencing the kinds of experiences and environments one has or seeks to have. Thus, unwanted effects of genes could be minimized by active efforts to steer oneself away from situations that detract from well-being or by avoiding being enticed toward maladaptive behaviors (Lykken, 2000; Lyubomirsky, 2001). In addition, it is worth noting that heritability coefficients describe covariations, not mean levels. Furthermore, even a high heritability coefficient for a particular trait (such as happiness) does not rule out the possibility that the mean level of that trait for a specific population can be raised. Under the right conditions, perhaps anyone can become happier, even if her or his rank ordering relative to others remains stable.

To summarize, it appears there is a paradox: Some theoretical perspectives and empirical data suggest that happiness can be increased, whereas other theories and data imply that it cannot. How can these conflicting perspectives on the possibility of happiness enhancement be resolved? Also, if enhanced happiness is indeed possible, what kinds of circumstances, activities, or habits of mind are most likely to bring gains, especially gains that can be maintained?

### Model of Happiness

Accordingly, the primary question addressed in this article is the following: Through what mechanisms, if any, can a chronic happiness level higher than the set point be achieved and sustained? To this end, we describe the *architecture of sustainable happiness*. The integrative model of happiness we present accommodates the role of both personality/genetic and

circumstantial/demographic factors in happiness. However, it also goes beyond these cross-sectional or concurrent factors to incorporate dynamic, time-sensitive factors. This extension allows the question of within-subject change in well-being, and maintained change, to be addressed. Most important, the model incorporates the role of motivational and attitudinal factors, consistent with the assumption that happiness can be actively pursued. We attempt to show that certain types of intentional activities indeed offer ways to achieve sustainable changes in well-being, despite the counteracting effects of adaptation.

In the sections to follow, we first provide a working definition of chronic happiness. Then we define the three factors that affect it (genetic set point, circumstances, and activities) and argue that intentional activities offer the best potential route to higher and sustainable levels of happiness. Subsequently, we consider some more complex issues pertaining to the achievement of sustainable well-being via intentional activity, such as the role of person–activity fit, optimal timing and variety of activity, and the supportive role of sustained effort and positive habits. Then, in the final section of the article, we describe several preliminary efforts to increase happiness, based on our model, and discuss the nature of effective happiness interventions.

### *Defining Happiness*

Here we define happiness as it is most often defined in the literature, that is, in terms of frequent positive affect, high life satisfaction, and infrequent negative affect. These three constructs are the three primary components of subjective well-being, according to Diener and colleagues (for reviews, see Diener, 1984, 1994; Diener et al., 1999). Supporting the legitimacy of considering them as indicators of the same underlying construct, we find that the measures are highly correlated and typically yield a single factor after negative affect has been recoded (Sheldon & Kasser, 1998, 2001; Sheldon & Lyubomirsky, 2004). To refer to this group of measures, we use the term *happiness* or *subjective well-being*, although we also discuss mood and life satisfaction at times according to the specific ideas and data being presented.

It is important to note as well that we use a subjectivist definition of happiness, one that commonly relies on people's self-reports. We believe this is appropriate and even necessary given our view that happiness must be defined from the perspective of the person. In other words, happiness is primarily a subjective phenomenon for which the final judge should be "whoever lives inside a person's skin" (Myers & Diener, 1995, p. 11; see also Diener, 1994). However, the fact that the judgment of happiness is necessarily subjective does not mean that influences on that judgment cannot be studied empirically; for example, researchers might investigate the effects of factors such as a person's recent experiences of positive emotion (Frijda, 1999), the frame in which the question is presented (Larsen & Fredrickson, 1999), the meaning that the person ascribes to the question (Schwarz & Strack, 1999), and the person's sense of making satisfactory progress toward life goals at the time of the judgment (Carver & Scheier, 1990). We consider some of these factors in greater detail in a later section. Finally, the fact that self-reported happiness is subjective does not mean that it is unrelated to relatively more "objective" variables. For example, research has shown significant convergence of self-reported well-being with peer and spouse reports of well-being (e.g., Lyubomirsky & Lepper, 1999; Sandvik, Diener, & Seidlitz, 1993), with recall of particular types of events (e.g., Seidlitz, Wyer, & Diener, 1997), with smiling behavior (e.g., Harker & Keltner, 2001), and with physiological responses (e.g., Lerner, Taylor, Gonzalez, & Stayn, 2002).

### *Chronic Happiness Level*

Our primary focus in this article is on a person's characteristic level of happiness during a particular period in his or her life, which we term the *chronic happiness level*. We define happiness this way because we wish to identify a quantity that is more enduring than momentary or daily happiness but that is also somewhat malleable over time and, thus, amenable to meaningful pursuit. According to this definition, although it is possible to alter one's chronic happiness level, it is much more difficult to do so than to alter one's happiness level at a particular moment or on a particular day. Operationally, one might define a person's

chronic happiness level in terms of his or her retrospective summary judgments regarding his or her mood and satisfaction during some recent period (such as the past 2, 6, or 12 months) or as the average of momentary judgments of mood and satisfaction made at several times during the selected period. It is worth adding, however, that people may vary in their “hedonic profiles,” such that two individuals with similar chronic happiness levels might differ in their relative levels of contentment with life versus their relative frequency of experiencing positive and negative mood states.

### *Determinants of the Chronic Happiness Level*

We focus on three primary types of factors that we believe causally affect the chronic happiness level, namely, the *set point*, *life circumstances*, and *intentional activity*. We focus on these three factors because they have historically received the majority of attention in the well-being literature, providing a substantial research base. We also focus on this three-factor distinction because it allows us to address several important issues and paradoxes, such as the question of whether it is even possible to “become happier” given strong genetic influences on happiness, the question of why past well-being research has revealed such weak associations between demographic/circumstantial variables and happiness, and the question of how a person might appropriately take action to “pursue” happiness.

Figure 1 provides an illustration of the ap-

## What Determines Happiness?

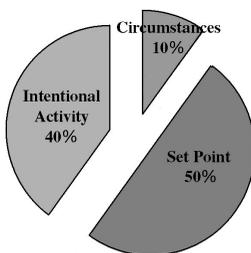


Figure 1. Three primary factors influencing the chronic happiness level.

proximate percentage of the variance that each of the three factors accounts for in cross-sectional well-being, as suggested by past research. As can be seen in the pie chart, existing evidence suggests that genetics account for approximately 50% of the population variation (Braun-gart et al., 1992; Lykken & Tellegen, 1996; Tellegen et al., 1988), and circumstances account for approximately 10% (Argyle, 1999; Diener et al., 1999). This leaves as much as 40% of the variance for intentional activity, supporting our proposal that volitional efforts offer a promising possible route to longitudinal increases in happiness. In other words, changing one’s intentional activities may provide a happiness-boosting potential that is at least as large as, and probably much larger than, changing one’s circumstances. In the following, we provide a definition of each factor, briefly consider whether and how changing that factor can lead to changes in people’s chronic well-being, and discuss whether such changes may be sustainable over the long term, that is, whether the forces of hedonic adaptation can be counteracted by that factor.

### *Happiness Set Point*

We assume that an individual’s chronic happiness level is in part determined by her or his set point, which is defined as the central or expected value within the person’s set range. The happiness set point is genetically determined and is assumed to be fixed, stable over time, and immune to influence or control. Consistent with this assumption, twin studies (Lykken & Tellegen, 1996; Tellegen et al., 1988), long-term panel studies (Headey & Wearing, 1989), and studies of the effects of life events on well-being (Brickman et al., 1978) all indicate substantial long-term stability in happiness. For example, Lykken and Tellegen (1996) assessed well-being in twins at 20 years of age and then again at 30 years of age. The test–retest correlation was a considerable .50. Even more important, the cross-twin, cross-time correlation for the happiness of monozygotic twins was .40 (or 80% of the test–retest correlation), suggesting that the heritability of the “stable” component of happiness is approximately .80. In contrast, the cross-twin, cross-time correlation for dizygotic twins was close to zero (.07). Other studies, although differing in

their estimates of heritability, have consistently shown that monozygotic twins exhibit considerably more similar patterns of happiness change than do dizygotic twins, providing converging support that the variance in adult happiness is in large part determined genetically.

The set point probably reflects relatively immutable intrapersonal, temperamental, and affective personality traits, such as extraversion, arousability, and negative affectivity, that are rooted in neurobiology (e.g., Ashby, Isen, & Turken, 1999; Davidson, 1999; Depue & Collins, 1999; Gray, 1990; Kagan, 2003; Robinson, Emde, & Corley, 2001), are highly heritable (Tellegen et al., 1988), and change little over the life span (McCrae & Costa, 1990). For example, Kagan has followed children from 4 months to 11 years of age and shown that sociability in 11-year olds can be traced to a particular type of infant temperament (called “low reactive”) that appears to involve a distinct neurochemical profile. Other writers, including Gray and Depue, have also compiled persuasive evidence for the neurobiological underpinnings of personality. This rapidly growing body of research supports the set point theory of personality and affect.

### *Implications of the Set Point for Sustainable Increases in Chronic Happiness*

The preceding analysis implies that one’s chronic happiness during a particular life period can be increased, but not by changing one’s set point, because by definition it is constant. In other words, although it is possible that future scientists will learn how to alter people’s basic temperaments and dispositions, at present it appears that focusing on the set point is not a fruitful avenue for happiness increase. Again, however, one can posit that nongenetic factors also influence a person’s chronic happiness level, helping to determine whether the person falls in the lower or upper portion of his or her potential range at a particular time. The remaining variables in the model are designed to represent these other factors.

### *Circumstances*

This category consists of happiness-relevant circumstantial factors, that is, the incidental but

relatively stable facts of an individual’s life. Happiness-relevant circumstances may include the national, geographical, and cultural region in which a person resides, as well as demographic factors such as age, gender, and ethnicity (see Diener et al., 1999, for a review). Circumstantial factors also include the individual’s personal history, that is, life events that can affect his or her happiness, such as having experienced a childhood trauma, being involved in an automobile accident, or winning a prestigious award. Finally, circumstantial factors include life status variables such as marital status, occupational status, job security, income, health, and religious affiliation.

Again, previous cross-sectional research has linked all of the circumstantial factors just described to subjective well-being (Diener et al., 1999). For example, empirical evidence shows that people who are paid more are relatively happier (e.g., Diener, Sandvik, Seidlitz, & Diener, 1993) and that middle-class individuals are somewhat happier than working-class individuals (e.g., Warr & Payne, 1982). Married people are happier than those who are single, divorced, or widowed (e.g., Mastekaasa, 1994), even in cultures as diverse as those of Belarus and Spain (Diener, Gohm, Suh, & Oishi, 2000). Findings also reveal that religiously committed people are relatively more likely to rate themselves as “very happy” (Gallup, 1984) and that, not surprisingly, healthy people, especially older ones, declare themselves to be slightly happier than sick people (e.g., Okun et al., 1984).

However, as suggested earlier, all circumstances combined account for only 8% to 15% of the variance in happiness levels (Argyle, 1999; Diener et al., 1999). These relatively weak associations have been deemed surprising and paradoxical, given well-being researchers’ initial expectations that circumstantial factors such as income and physical health would be strongly related to happiness (Diener et al., 1999). We believe that these counterintuitively small effects can be largely accounted for by hedonic adaptation and the fact that people adapt rapidly to new circumstances and life events. This appears to be the case because adaptation—whether it is sensory (e.g., to a foul odor or a heavy weight; Brown, 1953), physiological (e.g., to very hot or cold temperatures; Dar, Ariely, & Frank, 1995), or hedonic (e.g., to a salary raise; Brickman et al., 1978; Parducci,

1995)—occurs in response to stimuli that are constant or repeated. By definition, constancy is a feature of most circumstantial changes.

### *Implications of Circumstances for Sustainable Increases in Chronic Happiness*

Of the different types of circumstances, life status variables in particular seem to offer some potential for increasing chronic happiness, in that individuals often have considerable control over them. For example, a college football player may sign a lucrative NFL contract, a middle-aged divorcee may remarry, or a retired couple may move to Florida to a condominium with a view, all becoming happier as a result. Will such new happiness last, however? Perhaps not, because, as mentioned earlier, hedonic adaptation tends to shuttle people back to their starting point following any positive circumstantial change. For example, Headey and Wearing (1989) found in their four-wave panel study that positive and negative events (e.g., “made lots of new friends,” “got married,” “experienced serious problems with children,” or “became unemployed”) influenced life satisfaction, positive affect, and negative affect as would be expected but that people kept returning to their original baselines. And Schkade and Kahneman (1998) revealed that although “living in California” is a seductive notion for many, it does not actually make people any happier in the long run. Furthermore, Lucas, Clark, Georgellis, and Diener (2003) showed that, for most people, the life satisfaction benefits derived from getting married tended to fade over the years. Thus, although one may gain a temporary “boost” by moving to a new region, increasing one’s income level, or changing one’s appearance, such boosts will probably not last, because people tend to adapt to constant circumstances. Other reasons why circumstantial changes may prove ineffectual for permanently increasing happiness include the fact that circumstantial changes can be costly (e.g., in terms of money, resources, and time) and, in many cases, impractical or even impossible. Also, once a realistic “ceiling” of positive circumstances is reached, it may be difficult to improve matters further.

In short, the data suggest that changes in circumstances have limited potential for pro-

ducing sustainable changes in chronic happiness. Although this strategy may work in the short term, it probably will not work in the long term. Of course, if people have not achieved basic subsistence and security, then it is logical for them to attend to these circumstances and basic needs first, before focusing on maximizing their happiness. However, we assume that, at best, satisfying basic needs can move people only up to their set point, not beyond.

### *Intentional Activity*

Now we turn to the third and arguably most promising means of altering one’s happiness level: intentional activity. This is a very broad category that includes the wide variety of things that people do and think in their daily lives. Obviously, humans are very active creatures, with innumerable behaviors, projects, and concerns to which they devote energy. By “intentional,” we mean discrete actions or practices in which people can choose to engage (although the choice to initiate the activity may have become habitual, as discussed in a later section). We also assume that intentional activities require some degree of *effort* to enact. That is, the person has to try to do the activity; it does not happen by itself. Indeed, this point touches on one of the critical distinctions between the category of activity and the category of life circumstances; that is, circumstances *happen* to people, and activities are ways that people *act* on their circumstances.

There is good reason to believe that intentional activity can influence well-being. For example, some types of *behavioral* activity, such as exercising regularly or trying to be kind to others, are associated with well-being (e.g., Keltner & Bonanno, 1997; Magen & Aharoni, 1991), as are some types of *cognitive* activity, such as reframing situations in a more positive light or pausing to count one’s blessings (Emmons & McCullough, 2003; King, 2001; Seligman, 1991), and some kinds of *volitional* activity, such as striving for important personal goals (Sheldon & Houser-Marko, 2001) or devoting effort to meaningful causes (M. Snyder & Omoto, 2001). Notably, it is impossible to fully separate behavioral, cognitive, and volitional activity; still, we believe the distinction is useful, and we continue to use it throughout the article.

### *Implications of Intentional Activity for Sustainable Increases in Chronic Happiness*

Again, it appears that increasing one's set point and changing one's life circumstances are not fruitful avenues for sustainable increases in chronic happiness. What, if anything, can provide such an avenue? In the following, we argue that intentional behavioral, cognitive, or volitional activity offers the best potential route. Some work has already investigated the impact of adopting new *behaviors* on longitudinal well-being, showing, for example, that faithfully engaging in a new exercise program positively boosts people's mood and vitality and can even maintain the boosts for as long as 6 months (e.g., Ransford & Palisi, 1996; Stewart et al., 1997). Although little work has directly investigated the longitudinal effects of changing one's *cognitive* attitudes and practices on enhanced well-being, the general success of cognitive-behavioral therapy in reducing suffering (Gloaguen et al., 1998) and recent work indicating positive effects of prompting people to practice positive psychological "virtues" such as gratitude (Emmons & McCullough, 2003), hope (C. R. Snyder, Haridi, Michael, & Cheavens, 2000), and forgiveness (McCullough et al., 2000) suggest that cognitive activity offers many excellent possibilities for happiness interventions (Fordyce, 1983).

Turning to the third type of intentional activity, recent longitudinal studies have focused specifically on *volitional* activity as a producer of enhanced well-being (see Sheldon, 2002, for a review). In such studies, students are typically asked to pursue self-generated personal goals over the course of a semester. High levels of goal progress or attainment consistently predict increased well-being (i.e., higher positive affect and life satisfaction and lower negative mood) from the beginning to the end of the semester, whereas low levels of progress predict reduced well-being (Brunstein, 1993; Sheldon, 2002). Specifically, Sheldon's longitudinal research in this area (Sheldon & Elliot, 1998, 1999; Sheldon & Kasser, 1995, 1998) has shown that well-being increases are most likely when a person chooses and attains *self-concordant* goals, that is, goals that "fit" the person (as described subsequently). This work has also

highlighted one potential mediator from successful volitional activity to enhanced well-being, namely, accumulations of positive daily experiences along the way. The question of what other proximal factors may mediate changes in chronic happiness is addressed in more detail in a later section.

Notably, these studies do not extend beyond a single span of time. Thus, they do not directly address the crucial question raised by the current article: whether gains in well-being last. Although Headey and Wearing's important (1989) work suggests that gains in happiness do *not* last, notably, their study focused only on life events ("circumstances," in our model) and did not take intentional activity into direct account.

Recently, Sheldon and Houser-Marko (2001) addressed the question of sustainability by examining the effects of goal attainment on emotional well-being over two consecutive semesters. Consistent with earlier studies, they found that students who attained their personal goals during the first semester of their freshman year experienced enhanced adjustment and emotional well-being at the end of that semester. More important, they found that students could *maintain* their enhanced level of well-being, but only if they continued to do well at their goals during the second semester. In contrast, students who did well in the first semester but not in the second semester tended to regress back to their original well-being levels. This study offers direct support for our assumption that happiness can be enhanced and then maintained at the new level, especially when volitional activity is effectively pursued over long periods of time. Further supporting this conclusion, Sheldon and Lyubomirsky (2004) recently resurveyed these participants 3 years after the original study and found that initially high-performing students had maintained their earlier gains in emotional well-being throughout their college career.

But what about adaptation? Is it not the case that even the most successful striver adapts to his or her happy situation eventually? More generally, is it not the case that people ultimately adapt to the positive effects of *any* activity in which they engage, whether it be behavioral, cognitive, or volitional, so that the activity loses its potency over time?

Although hedonic adaptation undoubtedly constrains the happiness-inducing effects of in-

tentional activities, just as it does for circumstances, this adaptation effect appears to be weaker in the case of activity, as shown by recent data. For example, Sheldon and Lyubomirsky (2004) recently conducted several short-term longitudinal studies in which participants' well-being (positive affect, negative affect, and life satisfaction) was measured at Time 1, and positive circumstantial and activity-based life changes were measured at Time 2. Well-being was then measured twice more, at Times 3 and 4. These investigators found consistent support for a path model, displayed in Figure 2, in which both positive circumstantial change and positive activity change predicted enhanced life satisfaction and positive affect at Time 3, but only positive activity change predicted maintained happiness gains at Time 4, with positive circumstantial change dropping out of the model. In other words, consistent with the present model, only activity-based well-being change lasted; circumstance-based happiness change did not.

In a separate study, Sheldon and Lyubomirsky (2004) randomly assigned participants to report on either activity-based positive changes or circumstantially based positive changes in their lives. Relative to those in the circumstantial-change group, those in the activity-change group reported a weaker sense of "having gotten used to the change, such that it does not give the same boost as before," and more strongly endorsed the statement "the change is something that varies over time, that is, something that adds variety to my life." These findings further support the claim that activity changes are characterized by less hedonic adaptation than circumstantial changes. Parenthetically, Sheldon and Lyubomirsky's (2004) findings, taken as a whole, support the validity of our distinction

between circumstantial changes and activity changes. Although the boundaries between these categories can be fuzzy, apparently they are clear enough to produce the predicted effects.

### *Specific Advantages of Intentional Activity*

What are the sources of the sustainable happiness gains afforded by intentional activity? We posit that activity-based change, unlike circumstance-based change, has several desirable features that may help to combat adaptation.

*Intentional activity is episodic.* One feature of activities is that they are, by definition, episodic and transient; after all, people cannot spend all of their time doing one thing. This in itself suggests that individuals may adapt less readily to new activities than to new circumstances. The episodic nature of activity also suggests that an additional way to maximize the impact of an activity is to attend to the *timing* of that activity. For example, a person might choose to "count her blessings" only after braving a difficult period, or only when she is especially needful of a boost. Suppose instead that she counts the same blessings every day, in a nonvarying routine. This person may become bored with the routine and cease to extract meaning from it. The *length* of time before one reengages in a happiness-boosting activity is an important part of its potency in the next application. By being mindful of the "refractory period" (Kalat, 2001) after which a recently performed activity regains its full happiness-inducing potential, individuals may maximize the benefits of the activity over time and avoid reducing or eliminating the activity's effectiveness through overuse. Thus, people should strive to discover the optimal timing for each activity, that is, a frequency of engagement that allows that activity to remain fresh, meaningful, and positive for a particular person.

*Intentional activity can be varied.* Another important parameter of behavioral, cognitive, and volitional activities is that people can continually *vary* them, both in their foci and in the ways they engage in them. This may help to reduce adaptation to the activity, allowing it to retain its potency (McAlister, 1982). Indeed, by definition, adaptation does not occur to stimuli that are variable or changeable but only to those that are constant or repeated (cf. Frederick &

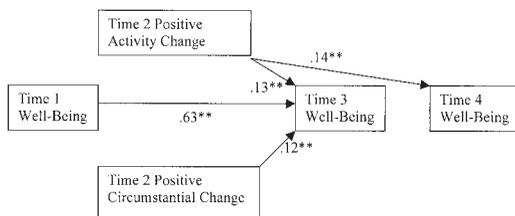


Figure 2. Longitudinal path model predicting maintained changes in well-being from positive circumstantial changes and positive activity changes. Asterisks indicate  $p < .01$ .

Loewenstein, 1999). For example, a scientist may regularly ask new questions and become involved in new projects. In the process, she often feels the joy of making fascinating new discoveries and thus may remain particularly happy (i.e., at the upper end of her potential range) over a long period of time. If the person counting her blessings varies the domains of life in which she counts them (i.e., in relationships, in work, in her health, or in her most recently successful domain), then the strategy may remain “fresh” and meaningful and work indefinitely. Supporting this notion, past research suggests that people tend to seek variety in their behavior (McAlister, 1982; Ratner, Kahn, & Kahneman, 1999), perhaps because change—in both thoughts and actions—is innately pleasurable and stimulating (Berlyne, 1970; Rolls et al., 1981).

*Intentional activity can directly counteract adaptation.* Yet another advantage of intentional activity is that it can directly tackle the problem presented by adaptation. For example, the cognitive practice of pausing to savor the good things in one’s life can directly counteract the effects of hedonic adaptation to one’s constant circumstances by drawing attention to the features that produced the initial happiness boost and helping to keep them from being taken for granted. As another example, practiced meditators frequently report renewed appreciation of the ordinary as a result of their intentional reencounters with the world.

The fact that intentional activity can directly counteract adaptation and the hedonic treadmill helps shed further light on the distinction between life circumstances and intentional activities. Obviously, many personal characteristics are both. For example, “being married” and “being a student” both denote demographic status, yet they also reflect particular sorts of activities. From our perspective, the crucial distinction with respect to well-being is whether one exerts intentional effort with respect to the circumstantial category, that is, whether one acts *upon* the circumstance (e.g., using intentional practices to keep the circumstance “fresh”). For example, an individual can engage in a number of intentional activities with respect to the circumstantial category “marriage”: A husband can have the goal of making his marriage work (a volitional activity), he can make the effort to appreciate his wife’s positive qual-

ities (an attitudinal activity), and he can try to remember to bring her flowers (a behavioral activity). A person who performs these activities would probably best counteract adaptation to this particular circumstance and derive the most benefit from it. In contrast, consider a husband who is not intentionally engaged in his marriage; for him, this demographic circumstance would essentially become a background factor, to which adaptation is very likely.

For all of these reasons, intentional activity appears to offer the best prospects for increasing and sustaining happiness. Of course, following through on new intentions, such as the ubiquitous “New Year’s resolutions,” is not necessarily easy (Sheldon & Elliot, 1998). Indeed, we assume that happiness-increasing strategies can be initiated and effectively pursued only with concerted, consistent commitment and effort. Still, activity-based factors are, by definition, under greater potential control by the individual than are genetic, demographic, and most life status factors. In other words, if anything can do it, intentional activity can.

### Implementing Happiness-Increasing Strategies

In this section, we briefly consider several important issues pertaining to how intentional activity might be used for increasing happiness. In other words, having established that activity can potentially sustainably elevate happiness, how might one put this potential to work? We discuss these strategic issues in roughly chronological order, proceeding from the question of how to *choose* a particular happiness-boosting activity to the question of how such activity may be *initiated* and the question of how the activity can be *maintained* over time to produce a sustained increase in the chronic level of happiness. In the process, we discuss the issue of person–strategy fit, the meaning and nature of effort, the definition and role of habits, and the impact of short-term versus long-term considerations.

#### *Choosing an Activity: The Role of Person–Activity Fit*

Any one particular activity will not help every person become happier. People have endur-

ing strengths, interests, values, and inclinations that undoubtedly predispose them to benefit more from some strategies than others. For example, extraverts may benefit most from activities that bring them into regular contact with other people, and people high in nurturance motivation may benefit most from activities that afford them opportunities to take care of others. This general “matching” hypothesis (Harackiewicz & Sansone, 1991) is supported by much recent work showing that the positive effects of goal attainment on well-being are moderated by goal–person fit (Brunstein et al., 1998; Diener & Fujita, 1995; Sheldon & Elliot, 1999; Sheldon & Kasser, 1998). It is also supported by past well-being intervention research. For example, in several studies that instructed participants to apply 14 different techniques to increase their personal happiness, the particular techniques considered most effective for raising happiness varied greatly from one individual to another and appeared to be determined by each participant’s needs and areas of specific weakness (Fordyce, 1977, 1983).

The fit of an activity with a person might be conceptualized in a variety of ways, for example, with respect to individuals’ motive dispositions, basic needs, core values, signature strengths, personal resources, hedonic profiles, or other individual-difference characteristics. There are also a variety of ways that fit might be operationalized, such as in terms of self-reported fit, in terms of consistency between implicit and explicit measures of activity-relevant motives, or in terms of informant-rated person–activity fit. Another approach is to assume that certain kinds of experiences are likely to be beneficial to *anyone*, because these experiences reflect universal psychological needs. From this point of view, any activity that provides certain experiences, such as those involving belongingness (Baumeister & Leary, 1995), self-efficacy (Bandura, 1997), or autonomy (Deci & Ryan, 2000), might be assumed to “fit” the person, *a priori*.

### *Role of Effort*

*Initiating an activity.* We assume that engaging in an activity requires at least two different kinds of effort: first, the effort required to *initiate* the activity and, second, the effort required to actually *carry out* and *maintain* the

activity. This distinction is necessary because it is clear that many activities have definite positive effects *if* the person can only get started doing them. For example, exercising in the morning, making time to work on at least one important project during the day, or pausing to count one’s blessings at the end of the day can have significant benefits, but only if the person can “get over the hurdle” of remembering to do them and overcoming any obstacles to initiating them. Obviously, those who do not implement their activity intentions stand a worse chance of benefiting from them than those who do! We assume that this kind of self-regulatory effort requires considerable self-discipline and will-power. Furthermore, such effort may constitute a limited resource, one that must be marshaled carefully; in Muraven and Baumeister’s (2000) terms, self-regulatory will is like a “muscle” that has limited capacity in a given unit of time and must be used strategically to avoid fatigue.

If this analogy is accurate, then it seems logical that some people develop the muscle to a greater extent than others, thus attaining a greater ability to “get started” on their intentions and gaining greater happiness potential. Of course, some activities will appear intrinsically more appealing and will be easier to jumpstart; this is undoubtedly one advantage of selecting an activity that fits one’s personality. For example, rather than running on a track, a fitness-seeking wilderness lover might instead choose to run on a trail through the woods, thereby feeling much less initial resistance to beginning the activity. As another example, rather than learning classical pieces, a jazz-loving piano student might instead choose to work on jazz standards, enhancing the intrinsic appeal of sitting down to practice.

*Maintaining an activity.* This brings us to the second type of effort. Obviously, if a particular activity is to yield sustained happiness change, the person must keep performing the activity over the long term. For many effective happiness-enhancing activities, this will not be difficult, because the task will probably be inherently interesting or rewarding and thus will be “autotelic” in nature (Deci & Ryan, 2000), that is, self-reinforcing and self-sustaining. This is especially true to the extent that the person continually varies what he or she does. If, for example, a person shifts attention among several projects at work, explores new trails in the

state park, or seeks out interesting new piano pieces, his or her activities should remain intrinsically enjoyable and conducive to many rewarding “flow” experiences (Csikszentmihalyi, 1990).

What if the activity is not enjoyable and thus difficult to maintain? In this case, stopping the activity may not be problematic, because it probably is not working anyway. By emphasizing the importance of enjoying one’s intentional activity, however, we do not mean to imply that people should seek out only “fun” activities. Sometimes choosing to endure boring or even aversive experiences in the short term can have considerable positive effects on chronic happiness in the long term; for example, studying for an important exam in a tedious but required class may well represent an excellent investment in one’s future chronic happiness, even though it may detract from one’s momentary happiness. As another example, a naval officer candidate is paying a short-term cost (boot camp) to receive a longer term benefit (a career as an officer).

Of note, self-determination theory (Deci & Ryan, 2000; Sheldon, Joiner, & Williams, 2003) posits that the crucial factor in such cases is whether the person has internalized the non-enjoyable activity, that is, whether he or she is able to find meaning and value expression in it, even if it is not pleasant to perform. From this perspective, the naval officer candidate would pay a smaller short-term cost if he could undergo boot camp thinking that “this is important and valuable” rather than thinking that “this is unnecessary and stupid.” The question of when and how to sacrifice short-term happiness in exchange for longer term happiness is an important one, as is the question of how to promote internalization of important happiness-relevant activities that are not intrinsically enjoyable. These questions represent promising directions for future research.

### *Role of Habitual Activity*

If activities such as “looking on the bright side,” “making time for the things that matter,” and “working on an important life goal” make a difference for happiness, then it seems it would be a good idea to make a habit of doing them. However, on the surface, habits appear to present a conundrum for our model. Is it not the case that acquiring a habit means that one has

turned a formerly conscious activity into an unconscious routine, practiced automatically and without variation? If so, is it not the case that one is especially likely to experience hedonic adaptation to that activity, such that it loses its happiness-boosting potential?

We think not. However, to illustrate, we must first distinguish between the habit of *regularly initiating* a potentially beneficial activity and the habit of *implementing it the same way every time* (the two types of effort mentioned earlier). We assume that hedonic adaptation occurs only with respect to particular experiences, and not with respect to the decisions that give rise to those experiences. Thus, making a habit out of deciding to initiate an activity is not problematic but may instead help people to keep getting “over the hump.” For example, a woman might make running an automatic part of her daily routine, such that she does not even have to make the decision of whether or not to run each day, thus deriving considerable benefit. What is potentially problematic is when people make a habit out of *how* they implement the activity. When this happens, the flow of experiences produced by such a habit is likely to remain relatively constant, and thus, adaptation is likely to have the most pernicious effects. To overcome this, as suggested earlier, people should mindfully attend to optimal timing and variety in the ways they practice an activity. For example, the woman might want to vary the route, time of day, and speed of her running. This will help forestall the effects of adaptation.

### Extensions and Further Questions

Now that we have presented our basic conceptual model of sustainable changes in happiness, we briefly consider a variety of additional issues that extend beyond this basic model. What are the key ingredients of particular activities that lead a person to a higher level of well-being? Although this question is somewhat peripheral to our model, it merits brief discussion. We assume that happiness increases come from at least two sources that are described, respectively, by bottom-up and top-down theories of well-being (Diener, 1994). Bottom-up theories postulate that people make global well-being judgments in part with reference to emotions associated with their recent experiences (Kahneman, 1999). If they can recall a large

number of recent affectively positive experiences, then they report being very happy (see Sheldon & Elliot, 1999, for supporting data). Studies have produced support for this bottom-up perspective by showing that accumulations of need-satisfying daily experiences over time (such as competence, relatedness, and autonomy; Deci & Ryan, 2000) lead to enhanced global well-being at the end of that time (Reis, Sheldon, Ryan, Gable, & Roscoe, 2000; Sheldon, Ryan, & Reis, 1996). Furthermore, Sheldon and Lyubomirsky (2004) found, in their comparison of the sustained effects of circumstantial changes and activity changes on changes in well-being among students, that the more enduring activity-based effects on happiness were mediated by the greater feelings of competence and relatedness associated with activity changes during the semester.

But what about when people say they are happy despite having had recent *negative* emotional experiences? Although bottom-up theories cannot account for this, top-down theories can. According to such models, well-being judgments are in part determined by global attitudinal or meaning-based factors. Thus, a person who “suffers for a cause” might still feel very happy because her suffering demonstrates her commitment to, and also perhaps moves her closer to obtaining, an important life goal. As another example, a man who has a bad day at work might still report being very happy that night, because of a short but meaningful visit from his grandchildren that evening that helped him to reframe the day. Again, we believe that intentional activity can lead to new well-being by both top-down and bottom-up routes, that is, both via accumulations of small positive experiences and via a sense of global meaning and purpose.

### Preliminary Data: Happiness Interventions

The model of sustainable happiness that we have proposed has clear implications for how to design interventions for increasing happiness. Before describing these, we first discuss some of the few happiness intervention studies that have been conducted, to show their general consistency with our approach. As noted earlier, Fordyce (1977, 1983) conducted several happiness intervention studies in which he taught 14 happiness-relevant strategies to students as part

of their coursework. All of the strategies fit into one or more of the three categories of activity outlined earlier: behavioral (e.g., “spend more time socializing”), cognitive (e.g., “become present oriented”), and volitional (e.g., “get better organized and plan things out”). Consistent with our conceptual model, Fordyce found that the strategies worked; that is, a significant main effect of participation was found for the experimental conditions. Again, intentional activity can successfully increase happiness. Also consistent with our model, he found that some strategies worked better than others and, in addition, that person–strategy fit had a moderating effect on strategy effectiveness.

More recently, Sheldon and colleagues (2002) conducted an intervention study based on participants’ personal goals. Early in the semester, they taught experimental participants a set of four strategies for enhancing their experience and attainment of their personal goals: “own the goal,” “make it fun,” “keep a balance,” and “remember the big picture.” Consistent with the studies cited earlier, goal attainment predicted increases in well-being at the end of the semester. Interestingly, there was no main effect of experimental condition on increased well-being or goal attainment. Instead, a significant interaction was observed, such that only participants whose goals “fit” their interests and values benefited from the intervention. In other words, those with self-concordant goals who received the intervention evidenced the greatest goal attainment and, thus, the greatest increase in well-being. In addition to demonstrating that happiness-boosting interventions can work for at least some people, this finding provides further support for our proposition that the fit of the activity to the person makes a difference.

Obviously, much future work remains to be done regarding happiness-increasing interventions, particularly research that explicitly manipulates the various factors in our model. As a preliminary test, Lyubomirsky, Tkach, and Sheldon (2004) recently conducted two 6-week happiness-enhancing interventions based in behavioral and cognitive–attitudinal change. Drawing on promising interventions grounded in the positive psychology tradition—that is, focused on building positive affect and personal strengths rather than on reducing or coping with negative affect, pathology, or weakness—they

used two diverse strategies (one cognitive and one social behavioral) to serve as initial existence proofs of our conceptual model. To this end, experimental participants were prompted to perform kind acts or to pause and “count their blessings.”

The strategy of committing acts of kindness was expected, on the basis of previous theory and research, to boost temporary moods and long-lasting well-being. For example, individuals who report a greater interest in helping others, an inclination to act in a prosocial manner, or intentions to perform altruistic or courteous behaviors are more likely to rate themselves as dispositionally happy (see Lyubomirsky, King, & Diener, 2004, for a review). We assume that acts of kindness and generosity can boost happiness in a variety of ways. Such acts may foster a charitable perception of others and one’s community, an increased sense of cooperation and interdependence, and an awareness of one’s good fortune. In addition, people who commit acts of kindness may begin to view themselves as altruistic people, as well as to feel more confident, efficacious, in control, and optimistic about their ability to help. Furthermore, acts of generosity can inspire greater liking by others, along with appreciation, gratitude, and prosocial reciprocity (Trivers, 1971), all of which are valuable in times of stress and need. Finally, kind behaviors may help satisfy a basic human need for relatedness (Baumeister & Leary, 1995), thereby contributing to increased happiness.

Thus, in their first intervention, Lyubomirsky, Tkach, and Sheldon (2004) asked students to perform five acts of kindness per week over the course of 6 weeks, either all five acts in 1 day or five acts spread over the week. Such acts were described as behaviors that benefit other people or make others happy, usually at some cost to oneself (e.g., donating blood, helping a friend with a paper, visiting an elderly relative, or writing a thank-you note to a former professor). A no-treatment control group simply completed measures of well-being immediately before the intervention and immediately after. The results, displayed in the top panel of Figure 3, provided preliminary evidence that a short-term happiness-enhancing activity can increase well-being. Furthermore, supporting our model’s predictions, Lyubomirsky et al. found that optimal timing was critical. Whereas control par-

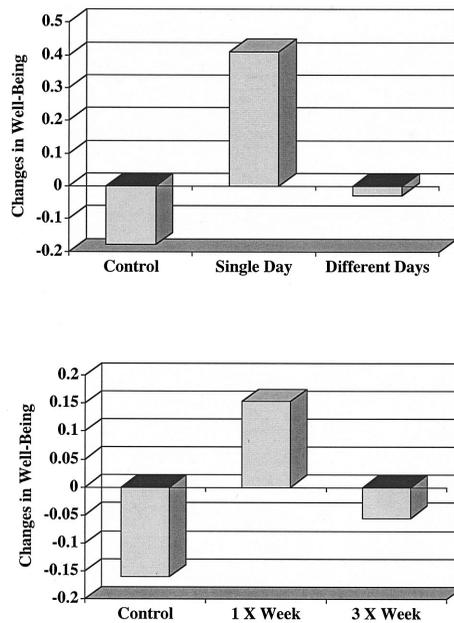


Figure 3. Changes in well-being over the course of two 6-week interventions: performing acts of kindness (top) and counting one’s blessings (bottom).

ticipants experienced a reduction in happiness over the course of the 6-week period, participants who committed acts of kindness experienced a significant increase in well-being, but this increase was evident only among those who showed their weekly generosity all in a single day. Because many of the kind acts that students performed were small ones, spreading them over the course of a week might have diminished their salience and power or made them less distinguishable from participants’ habitual kind behavior.

The second intervention tested a cognitive happiness-increasing activity. Recently, Emons and McCullough (2003) found that practicing grateful thinking on a regular basis can enhance concurrent well-being. Gratitude promotes the savoring of positive life experiences and situations so that maximum satisfaction and enjoyment are distilled from one’s circumstances. As noted earlier, this practice may directly counteract the effects of hedonic adaptation by helping people extract as much appreciation from the good things in their lives as possible. In addition, the ability to appreciate their life circumstances may also be an adaptive

coping strategy by which people positively reinterpret stressful or negative life experiences, bolster coping resources, and strengthen social relationships. Finally, the practice of gratitude appears to be incompatible with negative emotions and thus may reduce feelings of envy, anger, or greed.

Thus, in the second 6-week intervention, students were instructed to contemplate “the things for which they are grateful” either once a week or three times a week. Examples of “blessings” listed by students included “a healthy body,” “my mom,” and “AOL instant messenger.” Control participants completed only the happiness assessments. The results again suggested that short-term increases in happiness are possible and, furthermore, that optimal timing is important. In summary, students who regularly expressed gratitude showed increases in well-being over the course of the study relative to controls, but these increases were observed only among students who performed the activity just once a week (see Figure 3, bottom panel). Perhaps counting their blessings several times a week led people to become bored with the practice, finding it less fresh and meaningful over time.

Although the results of these two interventions are encouraging, they notably did not test the *sustainability* of the well-being increases for the experimental groups (i.e., “kindness” and “blessings”) and did not examine the impact of key moderators of activity effects. In the future, in addition to assessing the efficacy of different activities for producing sustainable increases in well-being, we will investigate the effects of such potential moderators as fit, effectiveness, timing, variety, cultural membership, social support, and the habits associated with the activity.

What are the most general recommendations for increasing happiness suggested by our model? Simply, happiness seekers might be advised to find new activities to become engaged in, preferably activities that fit their values and interests. They should make a habit out of initiating the activity while at the same time varying their focus and timing in terms of the way they implement the activity. People might be advised to avoid basing their happiness on the acquisition of particular circumstances or objects (e.g., buying a luxury car or moving to California), because they will tend to habituate

to such stable factors. Again, however, one can deter, or at least delay, such adaptation to positive circumstantial changes by engaging in intentional effort and activity with respect to them. That is, if one can remember to appreciate or actively engage with the object or circumstance (i.e., pause to savor the new Mercedes or take advantage of the California weather), then stable objects and circumstances may not be stable after all, from a phenomenological perspective. Thus, it remains the case that only life changes involving intentional activity can be expected to lead to sustainable changes in well-being.

## Conclusion

If it is meaningful and important to pursue happiness, then it is crucial to find out how this can be accomplished. To what extent, and how, can people succeed in making themselves happier? In this article, we have attempted to integrate what is known about happiness change, especially longitudinal variations in well-being, into a single summary model. The model encompasses a wide variety of findings and suggests a number of new directions for research. More than two centuries have passed since the “pursuit of happiness” was proclaimed as a divinely ordained human right. We believe it is finally time for the issue of sustainable well-being to be given the scientific attention that it deserves.

## References

- Argyle, M. (1999). Causes and correlates of happiness. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 353–373). New York: Russell Sage Foundation.
- Aristotle. (1974). *The Nichomachean ethics* (J. A. K. Thomson, Trans.). New York: Penguin.
- Ashby, F. G., Isen, A. M., & Turken, A. U. (1999). A neuropsychological theory of positive affect and its influence on cognition. *Psychological Review*, *106*, 529–550.
- Aspinwall, L. G. (1998). Rethinking the role of positive affect in self-regulation. *Motivation and Emotion*, *22*, 1–32.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as

- a fundamental human motivation. *Psychological Bulletin*, 117, 497–529.
- Berlyne, D. (1970). Novelty, complexity, and hedonic value. *Perception & Psychophysics*, 8, 279–286.
- Braungart, J. M., Plomin, R., DeFries, J. C., & Fulker, D. W. (1992). Genetic influence on test-rated infant temperament as assessed by Bayley's Infant Behavior Record: Nonadoptive and adoptive siblings and twins. *Developmental Psychology*, 28, 40–47.
- Brickman, P., & Campbell, D. T. (1971). Hedonic relativism and planning the good society. In M. H. Appley (Ed.), *Adaptation-level theory* (pp. 287–302). New York: Academic Press.
- Brickman, P., Coates, D., & Janoff-Bulman, R. (1978). Lottery winners and accident victims: Is happiness relative? *Journal of Personality and Social Psychology*, 36, 917–927.
- Brown, D. R. (1953). Stimulus similarity and the anchoring of subjective scales. *American Journal of Psychology*, 66, 199–214.
- Brunstein, J. (1993). Personal goals and subjective well-being: A longitudinal study. *Journal of Personality and Social Psychology*, 65, 1061–1070.
- Brunstein, J. C., Schultheiss, O. C., & Grassman, R. (1998). Personal goals and emotional well-being: The moderating role of motive dispositions. *Journal of Personality and Social Psychology*, 75, 494–508.
- Carlson, R. (1997). *You can be happy no matter what: Five principles for keeping life in perspective*. Novato, CA: New World Library.
- Carstensen, L. L. (1995). Evidence for a life-span theory of socioemotional selectivity. *Current Directions in Psychological Science*, 4, 151–156.
- Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review*, 97, 19–35.
- Charles, S. T., Reynolds, C. A., & Gatz, M. (2001). Age-related differences and change in positive and negative affect over 23 years. *Journal of Personality and Social Psychology*, 80, 136–151.
- Costa, P. T., McCrae, R. R., & Zonderman, A. B. (1987). Environmental and dispositional influences on well-being: Longitudinal follow-up of an American national sample. *British Journal of Psychology*, 78, 299–306.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York: Harper & Row.
- Csikszentmihalyi, M., & Wong, M. M. (1991). The situational and personal correlates of happiness: A cross-national comparison. In F. Strack, M. Argyle, & N. Schwarz (Eds.), *Subjective well-being: An interdisciplinary perspective* (pp. 193–212). Elmsford, NY: Pergamon Press.
- Danner, D. D., Snowdon, D. A., & Friesen, W. V. (2001). Positive emotions in early life and longevity: Findings from the nun study. *Journal of Personality and Social Psychology*, 80, 804–813.
- Dar, R., Ariely, D., & Frank, H. (1995). The effect of past injury on pain threshold and tolerance. *Pain*, 60, 189–193.
- Davidson, R. J. (1999). Neuropsychological perspectives on affective styles and their cognitive consequences. In T. Dalgleish & M. J. Power (Eds.), *Handbook of cognition and emotion* (pp. 103–123). Chichester, England: Wiley.
- 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.
- DeNeve, K. M., & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin*, 124, 197–229.
- Depue, R. A., & Collins, P. F. (1999). Neurobiology of the structure of personality: Dopamine, facilitation of incentive motivation, and extraversion. *Behavioral and Brain Sciences*, 22, 491–569.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95, 542–575.
- Diener, E. (1994). Assessing subjective well-being: Progress and opportunities. *Social Indicators Research*, 31, 103–157.
- Diener, E., & Fujita, F. (1995). Resources, personal strivings, and subjective well-being: A nomothetic and idiographic approach. *Journal of Personality and Social Psychology*, 68, 926–935.
- Diener, E., Gohm, C. L., Suh, E., & Oishi, S. (2000). Similarity of the relations between marital status and subjective well-being across cultures. *Journal of Cross-Cultural Psychology*, 31, 419–436.
- Diener, E., & Lucas, R. E. (1999). Personality and subjective well-being. In D. Kahneman, E. Diener, & N. Schwartz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 213–229). New York: Russell Sage Foundation.
- Diener, E., Sandvik, E., Seidlitz, L., & Diener, M. (1993). The relationship between income and subjective well-being: Relative or absolute? *Social Indicators Research*, 28, 195–223.
- Diener, E., & Suh, E. M. (1998). Subjective well-being and age: An international analysis. In K. W. Schaie & M. P. Lawton (Eds.), *Annual review of gerontology and geriatrics: Focus on emotion and adult development* (Vol. 17, pp. 304–324). New York: Springer.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125, 276–302.
- Diener, E., Suh, E. M., Smith, H., & Shao, L. (1995). National differences in reported well-being: Why

- do they occur? *Social Indicators Research*, 34, 7–32.
- Dillon, K. M., Minchoff, B., & Baker, K. H. (1985). Positive emotional states and enhancement of the immune system. *International Journal of Psychiatry in Medicine*, 15, 13–18.
- Emmons, R. A., & King, L. A. (1988). Conflict among personal strivings: Immediate and long-term implications for psychological and physical well-being. *Journal of Personality and Social Psychology*, 54, 1040–1048.
- 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.
- Estrada, C., Isen, A. M., & Young, M. J. (1994). Positive affect influences creative problem solving and reported source of practice satisfaction in physicians. *Motivation and Emotion*, 18, 285–299.
- Fava, G. (1999). Well-being therapy: Conceptual and technical issues. *Psychotherapy and Psychosomatics*, 68, 171–179.
- Fordyce, M. W. (1977). Development of a program to increase happiness. *Journal of Counseling Psychology*, 24, 511–521.
- Fordyce, M. W. (1983). A program to increase happiness: Further studies. *Journal of Counseling Psychology*, 30, 483–498.
- 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.
- 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., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, 13, 172–175.
- Freedman, J. (1978). *Happy people: What happiness is, who has it, and why*. New York: Harcourt Brace Jovanovich.
- Frijda, N. H. (1999). Emotions and hedonic experience. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 190–210). New York: Russell Sage Foundation.
- Gallup, G. G., Jr. (1984, March). Commentary on the state of religion in the U. S. today. *Religion in America: The Gallup Report*, No. 222.
- Gaskins, R. W. (1999). “Adding legs to a snake”: A reanalysis of motivation and the pursuit of happiness from a Zen Buddhist perspective. *Journal of Educational Psychology*, 91, 204–215.
- Gloaguen, V., Cottraux, J., Cucherat, M., & Blackburn, I. (1998). A meta-analysis of the effects of cognitive therapy in depressed patients. *Journal of Affective Disorders*, 49, 59–72.
- Gray, J. A. (1990). Brain systems that mediate both emotion and cognition. *Cognition and Emotion*, 4, 269–288.
- Harackiewicz, J. M., & Sansone, C. (1991). Goals and intrinsic motivation: You can get there from here. In M. L. Maehr & P. R. Pintrich (Eds.), *Advances in motivation and achievement* (Vol. 7, pp. 21–49). Greenwich, CT: JAI Press.
- Harker, L., & Keltner, D. (2001). Expressions of positive emotions in women’s college yearbook pictures and their relationship to personality and life outcomes across adulthood. *Journal of Personality and Social Psychology*, 80, 112–124.
- Headey, B., & Wearing, A. (1989). Personality, life events, and subjective well-being: Toward a dynamic equilibrium model. *Journal of Personality and Social Psychology*, 57, 731–739.
- Isen, A. M. (1970). Success, failure, attention and reaction to others: The warm glow of success. *Journal of Personality and Social Psychology*, 15, 294–301.
- Jacobson, N. S., Dobson, K. S., Truax, P. A., Addis, M. E., Koerner, K., Gollan, J. K., et al. (1996). A component analysis of cognitive-behavioral treatment for depression. *Journal of Consulting and Clinical Psychology*, 64, 295–304.
- Jahoda, M. (1958). *Current concepts of positive mental health*. New York: Basic Books.
- Kagan, J. (2003). Biology, context and developmental inquiry. *Annual Review of Psychology*, 54, 1–23.
- Kahneman, D. (1999). Objective happiness. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 3–25). New York: Russell Sage Foundation.
- Kalat, J. W. (2001). *Biological psychology* (7th ed.). Belmont, CA: Wadsworth.
- Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, 22, 280–287.
- Keltner, D., & Bonanno, G. A. (1997). A study of laughter and dissociation: Distinct correlates of laughter and smiling during bereavement. *Journal of Personality and Social Psychology*, 73, 687–702.
- King, L. A. (2001). The health benefits of writing about life goals. *Personality and Social Psychology Bulletin*, 27, 798–807.
- Larsen, R. J., & Fredrickson, B. L. (1999). Measurement issues in emotion research. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 40–60). New York: Russell Sage Foundation.
- Lerner, J. S., Taylor, S. E., Gonzalez, R. M., & Stayn, H. B. (2002). *Emotion, physiological reactivity,*

- and visceral self perception. Manuscript submitted for publication.
- Lichter, S., Haye, K., & Kammann, R. (1980). Increasing happiness through cognitive retraining. *New Zealand Psychologist*, 9, 57–64.
- Lucas, R. E., Clark, A. E., Georgellis, Y., & Diener, E. (2003). Reexamining adaptation and the set point model of happiness: Reactions to changes in marital status. *Journal of Personality and Social Psychology*, 84, 527–539.
- Lykken, D. (2000). *Happiness: The nature and nurture of joy and contentment*. New York: St. Martin's Press.
- 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?: The role of cognitive and motivational processes in well-being. *American Psychologist*, 56, 239–249.
- Lyubomirsky, S., King, L. A., & Diener, E. (2004). *Is happiness a strength?: An examination of the benefits and costs of frequent positive affect*. Manuscript submitted for publication.
- Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, 46, 137–155.
- Lyubomirsky, S., & Ross, L. (1997). Hedonic consequences of social comparison: A contrast of happy and unhappy people. *Journal of Personality and Social Psychology*, 73, 1141–1157.
- Lyubomirsky, S., Sousa, L., & Dickerhoof, R. (2004). *The medium is the message: The costs and benefits of thinking, writing, and talking about life's triumphs and defeats*. Manuscript submitted for publication.
- Lyubomirsky, S., Tkach, C., & Sheldon, K. M. (2004). [Pursuing sustained happiness through random acts of kindness and counting one's blessings: Tests of two six-week interventions]. Unpublished raw data.
- Magen, Z., & Aharoni, R. (1991). Adolescents' contributing toward others: Relationship to positive experiences and transpersonal commitment. *Journal of Humanistic Psychology*, 31, 126–143.
- Marks, G. N., & Fleming, N. (1999). Influences and consequences of well-being among Australian young people: 1980–1995. *Social Indicators Research*, 46, 301–323.
- Markus, H. R., & Kitayama, S. (1994). The cultural shaping of emotion: A conceptual framework. In S. Kitayama & H. R. Markus (Eds.), *Emotion and culture: Empirical studies of mutual influences* (pp. 339–351). Washington, DC: American Psychological Association.
- Mastekaasa, A. (1994). Marital status, distress, and well-being: An international comparison. *Journal of Comparative Family Studies*, 25, 183–205.
- McAlister, L. (1982). A dynamic attribute satiation model of variety-seeking behavior. *Journal of Consumer Research*, 9, 141–150.
- McCrae, R. R., & Costa, P. T. (1986). Personality, coping, and coping effectiveness in an adult sample. *Journal of Personality*, 54, 385–405.
- McCrae, R. R., & Costa, P. T. (1990). *Personality in adulthood*. New York: Guilford Press.
- McCrae, R. R., & Costa, P. T. (1994). The stability of personality: Observations and evaluations. *Current Directions in Psychological Science*, 3, 173–175.
- McCullough, M. E., Pargament, K. I., & Thoresen, C. E. (Eds.). (2000). *Forgiveness: Theory, research, and practice*. New York: Guilford Press.
- McGregor, I., & Little, B. R. (1998). Personal projects, happiness, and meaning: On doing well and being yourself. *Journal of Personality and Social Psychology*, 74, 494–512.
- Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin*, 126, 247–259.
- Myers, D. G. (2000). The funds, friends, and faith of happy people. *American Psychologist*, 55, 56–67.
- Myers, D. G., & Diener, E. (1995). Who is happy? *Psychological Science*, 6, 10–19.
- Norcross, J. C., Santrock, J. W., Campbell, L. F., Smith, T. P., Sommer, R., & Zuckerman, E. L. (2000). *Authoritative guide to self-help resources in mental health*. New York: Guilford Press.
- Okun, M. A., Stock, W. A., Haring, M. J., & Witter, R. A. (1984). The social activity/subjective well-being relation: A quantitative synthesis. *Research on Aging*, 6, 45–65.
- Ostir, G. V., Markides, K. S., Black, S. A., & Goodwin, J. S. (2000). Emotional well-being predicts subsequent functional independence and survival. *Journal of the American Geriatric Society*, 48, 473–478.
- Parducci, A. (1995). *Happiness, pleasure, and judgment: The contextual theory and its applications*. Hove, England: Erlbaum.
- Ransford, H. E., & Palisi, B. J. (1996). Aerobic exercise, subjective health and psychological well-being within age and gender subgroups. *Social Science and Medicine*, 42, 1555–1559.
- Ratner, R. K., Kahn, B. E., & Kahneman, D. (1999). Choosing less-preferred experiences for the sake of variety. *Journal of Consumer Research*, 26, 1–15.
- Reis, H. T., Sheldon, K. M., Ryan, R. M., Gable, S. L., & Roscoe, J. (2000). Daily well-being: The role of autonomy, competence, and relatedness. *Personality and Social Psychology Bulletin*, 26, 419–443.

- Roberts, B. W., & Chapman, C. N. (2000). Change in dispositional well-being and its relation to role quality: A 30-year longitudinal study. *Journal of Research in Personality, 34*, 26–41.
- Robinson, J. L., Emde, R. N., & Corley, R. P. (2001). Dispositional cheerfulness: Early genetic and environmental influences. In R. N. Emde & J. K. Hewitt (Eds.), *Infancy to early childhood: Genetic and environmental influences on developmental change* (pp. 163–177). London: Oxford University Press.
- Rolls, B., Rowe, E., Rolls, E., Kingston, B., Megson, A., & Gunary, R. (1981). Variety in a meal enhances food intake in man. *Physiology and Behavior, 26*, 215–221.
- Sandvik, E., Diener, E., & Seidlitz, L. (1993). Subjective well-being: The convergence and stability of self-report and non-self-report measures. *Journal of Personality, 61*, 317–342.
- Scheier, M. F., & Carver, C. S. (1993). On the power of positive thinking: The benefits of being optimistic. *Current Directions in Psychological Science, 2*, 26–30.
- Schkade, D. A., & Kahneman, D. (1998). Does living in California make people happy?: A focusing illusion in judgments of life satisfaction. *Psychological Science, 9*, 340–346.
- Schooler, J. W., Ariely, D., & Loewenstein, G. (in press). The explicit pursuit and assessment of happiness can be self-defeating. In J. Carrillo & I. Brocas (Eds.), *Psychology and economics*. Oxford, England: Oxford University Press.
- Schwartz, B. (2000). Pitfalls on the road to a positive psychology of hope. In J. E. Gillham & J. Templeton (Eds.), *The science of optimism and hope: Research essays in honor of Martin E. P. Seligman* (pp. 399–412). Philadelphia: Templeton Foundation Press.
- Schwarz, N., & Strack, F. (1999). Reports of subjective well-being: Judgmental processes and their methodological implications. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 61–84). New York: Russell Sage Foundation.
- Seidlitz, L., Wyer, R. S., & Diener, E. (1997). Cognitive correlates of subjective well-being: The processing of valenced life events by happy and unhappy persons. *Journal of Research in Personality, 31*, 240–256.
- Seligman, M. E. P. (1991). *Learned optimism*. New York: Alfred A. Knopf.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*, 5–14.
- 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. (2004). The benefits of a “sidelong” approach to self-esteem need-satisfaction: Comment on Crocker and Park (2004). *Psychological Bulletin, 130*, 421–424.
- Sheldon, K. M., & Elliot, A. J. (1998). Not all personal goals are personal: Comparing autonomous and controlled reasons for goals as predictors of effort and attainment. *Personality and Social Psychology Bulletin, 24*, 546–557.
- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need-satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology, 76*, 482–497.
- Sheldon, K. M., & Houser-Marko, L. (2001). Self-concordance, goal-attainment, and the pursuit of happiness: Can there be an upward spiral? *Journal of Personality and Social Psychology, 80*, 152–165.
- Sheldon, K. M., Joiner, T., & Williams, G. (2003). *Self-determination theory in the clinic: Motivating physical and mental health*. New Haven, CT: Yale 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., & Kasser, T. (1998). Pursuing personal goals: Skills enable progress but not all progress is beneficial. *Personality and Social Psychology Bulletin, 24*, 1319–1331.
- Sheldon, K. M., & Kasser, T. (2001). Getting older, getting better?: Personal strivings and psychological maturity across the life span. *Developmental Psychology, 37*, 491–501.
- Sheldon, K. M., Kasser, T., Smith, K., & Share, T. (2002). Personal goals and psychological growth: Testing an intervention to enhance goal-attainment and personality integration. *Journal of Personality, 70*, 5–31.
- Sheldon, K. M., & Lyubomirsky, S. (2004). *Achieving sustainable gains in happiness: Change your actions, not your circumstances*. Manuscript submitted for publication.
- Sheldon, K. M., Ryan, R. M., & Reis, H. T. (1996). What makes for a good day?: Competence and autonomy in the day and in the person. *Personality and Social Psychology Bulletin, 22*, 1270–1279.
- Snyder, C. R., Ilardi, S., Michael, S. T., & Cheavens, J. (2000). Hope theory: Updating a common process for psychological change. In C. R. Snyder & R. E. Ingram (Eds.), *Handbook of psychological change: Psychotherapy processes and practices for the 21st century* (pp. 128–153). New York: Wiley.
- Snyder, M., & Omoto, A. M. (2001). Basic research and practical problems: Volunteerism and the psy-

- chology of individual and collective action. In W. Wosinska, R. B. Cialdini, D. W. Barrett, & J. Reykowski (Eds.), *The practice of social influence in multiple cultures* (pp. 287–307). Mahwah, NJ: Erlbaum.
- Staw, B. M., Sutton, R. I., & Pelled, L. H. (1995). Employee positive emotion and favorable outcomes at the workplace. *Organization Science*, *5*, 51–71.
- Stewart, A. L., Mills, K. M., Sepsis, P. G., King, A. C., McLellan, B. Y., Roitz, K., & Ritter, P. L. (1997). Evaluation of CHAMPS, a physical activity promotion program for older adults. *Annals of Behavioral Medicine*, *19*, 353–361.
- Stone, A. A., Neale, J. M., Cox, D. S., Napoli, A., Vadlimarsdottir, V., & Kennedy-Moore, E. (1994). Daily events are associated with a secretory immune response to an oral antigen in men. *Health Psychology*, *13*, 440–446.
- Suh, E. M., Diener, E., & Fujita, F. (1996). Events and subjective well-being: Only recent events matter. *Journal of Personality and Social Psychology*, *70*, 1091–1102.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, *103*, 193–210.
- Tellegen, A., Lykken, D. T., Bouchard, T. J., Wilcox, K. J., Segal, N. L., & Rich, S. (1988). Personality similarity in twins reared apart and together. *Journal of Personality and Social Psychology*, *54*, 1031–1039.
- Triandis, H. C., Bontempo, R., Leung, K., & Hui, C. H. (1990). A method for determining cultural, demographic, and personal constructs. *Journal of Cross-Cultural Psychology*, *21*, 302–318.
- Trivers, R. (1971). The evolution of reciprocal altruism. *Quarterly Review of Biology*, *46*, 35–57.
- Tversky, A., & Griffin, D. (1991). Endowment and contrast in judgments of well-being. In F. Strack, M. Argyle, & N. Schwarz (Eds.), *Subjective well-being: An interdisciplinary perspective* (pp. 101–118). Oxford, England: Pergamon Press.
- Warr, P., & Payne, R. (1982). Experience of strain and pleasure among British adults. *Social Science and Medicine*, *16*, 1691–1697.
- Williams, S., & Shiaw, W. T. (1999). Mood and organizational citizenship behavior: The effects of positive affect on employee organizational citizenship behavior intentions. *Journal of Psychology*, *133*, 656–668.

Received September 25, 2004

Accepted September 28, 2004 ■

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