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Why are some people happier than others? The role of cognitive and motivational processes in well-being.

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Journal

The American psychologist, 56(3)

ISSN

0003-066X

Author

Lyubomirsky, S

Publication Date

2001-03-01

DOI

10.1037/0003-066x.56.3.239

Peer reviewed

Why Are Some People Happier Than Others?

The Role of Cognitive and Motivational Processes in Well-Being

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Sonja Lyubomirsky
University of California, Riverside

Addressing the question of why some people are happier than others is important for both theoretical and practical reasons and should be a central goal of a comprehensive positive psychology. Following a construal theory of happiness, the author proposes that multiple cognitive and motivational processes moderate the impact of the objective environment on well-being. Thus, to understand why some people are happier than others, one must understand the cognitive and motivational processes that serve to maintain, and even enhance, enduring happiness and transient mood. The author's approach has been to explore hedonically relevant psychological processes, such as social comparison, dissonance reduction, self-reflection, self-evaluation, and person perception, in chronically happy and unhappy individuals. In support of a construal framework, self-rated happy and unhappy people have been shown to differ systematically in the particular cognitive and motivational strategies they use. Promising research directions for positive psychology in pursuit of the sources of happiness, as well as the implications of the construal approach for prescriptions for enhancing well-being, are discussed.

The capacity of some people to be remarkably happy, even in the face of adverse circumstances or hard times, is striking. We can all identify individuals who appear to have a talent for happiness, to see the world around them through rose-colored glasses, to make out the silver lining even in misfortune, to live in the present, and to find joy in the little things from day to day (Freedman, 1978; Myers & Diener, 1995; Ryff, Singer, Love, & Essex, 1998; Taylor & Brown, 1988). Similarly, we are all familiar with people who, even in the best of times, seem chronically unhappy, peering at the world through gray-colored spectacles (M. W. Eysenck, 1990), always complaining, accentuating the negative, dwelling on the down side of both the trivial and the sublime (Lyubomirsky, Kasri, & Zehm, 2000), and generally deriving little pleasure from life (Myers & Diener, 1995). Thus, anecdotal evidence and everyday experience alike suggest that one of the most salient and significant dimensions of human experience and emotional life is happiness.¹

The question of why some people are happier than others is important for both theoretical and practical reasons, and the pursuit of its answer should be a central goal

of a positive psychology (Seligman & Csikszentmihalyi, 2000). Indeed, the dawn of the new millennium finds increasing research evidence supporting Aristotle's (trans. 1974) two millennia-old argument that happiness is the whole aim and end of human existence. Although sources of personal happiness may vary (Lyubomirsky, 2000; Lyubomirsky & Lepper, 1999), in almost every culture examined by researchers, people rank the pursuit of happiness as one of their most cherished goals in life (Diener & Oishi, 2000; Diener, Suh, Smith, & Shao, 1995; Freedman, 1978; Triandis, Bontempo, Leung, & Hui, 1990; for an exception, see Lyubomirsky, 2000). Furthermore, happiness appears to have a number of positive by-products, which may benefit not only individuals, but families, communities, and societies (see Myers, 1992; Veenhoven, 1988, for reviews).

Editor's note. Kennon M. Sheldon and Laura King developed this *Positive Psychology* section.

Author's note. Preparation of this article was facilitated by a Regent's Faculty Fellowship/Faculty Development Award and an intramural grant from the University of California. I am grateful to Barry Schwartz, Chip Heath, Fazilet Kasri, Shelley Taylor, and the members of Psychology 421 for valuable comments on an earlier version. Finally, I am indebted to Lee Ross for countless stimulating discussions on this topic.

Correspondence concerning this article should be addressed to Sonja Lyubomirsky, Department of Psychology, University of California, Riverside, CA 92521. Electronic mail may be sent to sonja@citrus.ucr.edu.

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¹ Happiness and well-being are used interchangeably in this article to indicate a psychological construct "the meaning of which everybody knows but the definition of which nobody can give" (H. M. Jones, cited in Freedman, 1978; cf. Argyle, 1987; Myers & Diener, 1995). Indeed, there is considerable agreement, at least in Western culture, as to what happiness means and whether it has been achieved (Freedman, 1978). By most accounts, it includes the experience of joy, contentment, or positive well-being, combined with a sense that one's life is good, meaningful, and worthwhile. A variety of self-report measures of enduring happiness—both global single-item scales and multi-item inventories—have been used in the research described here, the assumption being that happiness is a subjective phenomenon, for which the final judge should be "whoever lives inside a person's skin" (Myers & Diener, 1995, p. 11). A great deal of research has shown that the majority of these measures have adequate to excellent psychometric properties and that the associations between happiness and other variables usually cannot be accounted for by transient mood (see Diener, 1994; Diener et al., 1999, for reviews). For example, happiness (or subjective well-being) appears to be relatively stable over time and consistent across situations (e.g., Costa, McCrae, & Zonderman, 1987; Diener, 1994; Diener et al., 1999; Sandvik, Diener, & Seidlitz, 1993).

**Sonja
Lyubomirsky**

How much is currently known about the sources of individual differences in adult happiness—that is, why some people succeed at attaining and maintaining happiness and cheer, whereas others continuously languish in unhappiness and gloom? Fortunately, a great deal of research has addressed this question. However, because it is presently neither methodologically feasible nor ethical to manipulate an individual's chronic levels of happiness and unhappiness, all of this research has necessarily been correlational, examining the associations between happiness and a host of diverse proximal and distal factors. Much of the work has focused on the objective determinants of happiness in Western cultures—that is, the extent to which well-being is related to aspects of our environments, both imposed (e.g., native culture) and relatively controllable (e.g., income, marriage), as well as to aspects of persons not under our control (e.g., gender, age). According to this objectivist or bottom-up tradition, happy people are simply those with the most advantages—for example, a comfortable income, robust health, a supportive marriage, and lack of tragedy or trauma in their lives (see Argyle, 1999; Diener, Suh, Lucas, & Smith, 1999; M. W. Eysenck, 1990; Myers, 1992, for reviews). However, as an increasing number of authors have observed, the general conclusion from almost a century of research on the determinants of well-being is that objective circumstances, demographic variables, and life events are correlated with happiness less strongly than intuition and everyday experience tell us they ought to be (cf. Diener et al., 1999; Lyubomirsky & Ross, 1999). By several estimates, all of these variables put together account for no more than 8% to 15% of the variance in happiness (e.g., Andrews & Withey, 1976; Argyle, 1999; Diener, 1984; Diener et al., 1999).

Several studies have emerged as *sine qua non* examples of the failure of objective variables to predict happi-

ness. For example, in their oft-cited classic survey, Brickman and his colleagues offered dramatic testimony that even such extreme and unexpected life events as winning hundreds of thousands of dollars or losing the ability to walk exert surprisingly weak effects on people's current happiness and no effects at all on their predictions for their well-being in the future (Brickman, Coates, & Janoff-Bulman, 1978; see also, Silver, 1982). Other examples include findings of remarkably small associations between happiness and wealth, such as Myers's (2000) observation that as Americans' personal income has nearly tripled in the last half century, their happiness levels have remained the same, and Diener and colleagues' finding that the wealthiest Americans—those earning more than \$10 million annually—report levels of personal happiness only trivially greater than their less affluent peers (Diener, Horwitz, & Emmons, 1985).

A Construal Approach to Happiness

Do such findings of surprisingly small correlations suggest that objective circumstances and life events play only a trivial role in determining people's happiness? To answer this question, we must consider whether any life circumstances or events are truly objective. As many psychologists and philosophers have noted, people do not experience events or situations passively. Rather, all life events are "cognitively processed" (Scarr, 1988, p. 240)—that is, construed and framed, evaluated and interpreted, contemplated and remembered (Bruner, 1986; Ross, 1990)—so that each individual may essentially live in a separate subjective social world. To be sure, objective factors exert a tremendous impact on people's happiness, but they do so, I propose, through the operation of multiple cognitive and motivational processes. That is, the reason that such variables as wealth and health have such counterintuitively small effects on people's happiness is that a diverse set of psychological processes moderates the impact of events, life circumstances, and demographic factors on well-being. Thus, a construal theory of happiness suggests that to understand why some people are happier than others, we must understand the cognitive and motivational processes that serve to maintain or enhance both enduring happiness and transient mood.

An important implication of an approach to understanding happiness centered on cognitive and motivational processes is that any psychological process that has hedonic consequences—that is, positive or negative consequences for happiness and self-regard—is potentially relevant to elucidating individual differences in enduring happiness. Indeed, many familiar cognitive and judgmental processes that psychologists have been exploring over the past several decades happen to have hedonic consequences and, as such, may be linked to transient and enduring differences in happiness or well-being. Thus, my approach has been to explore hedonically relevant psychological processes, such as social comparison, dissonance reduction, self-reflection, self-evaluation, and person perception, in chronically happy and unhappy individuals. In support of a construal framework, self-rated happy and unhappy

people have been shown to differ systematically and in a manner consistent with and supportive of their differing states and temperaments (Lyubomirsky et al., 2000; Lyubomirsky & Ross, 1997, 1999; Lyubomirsky & Tucker, 1998, 2000). That is, my colleagues and I have found that happy individuals construe naturally occurring life events, as well as situations constructed in the laboratory, in ways that seem to maintain and even promote their happiness and positive self-views, whereas unhappy individuals construe experiences in ways that seem to reinforce their unhappiness and negative self-views. Supporting a top-down perspective on well-being, my research shows that happy individuals experience and react to events and circumstances in relatively more positive and more adaptive ways (cf. Diener, 1984).

Relevant Prior Theory and Research

Notably, a construal framework is foreshadowed in previous theoretical and empirical work. Indeed, most theoretical perspectives on happiness, as well as a number of relevant theoretical models in related areas, attempt to explain how various cognitive and motivational processes account for differences in enduring and transient well-being (cf. DeNeve, 1999). For example, theories that single out aspiration levels, goals, social comparisons, and coping responses, among others (see Diener et al., 1999, for a review), all share a common concern with subjective psychological processes. These processes, I suggest, moderate the impact of the environment on well-being by forging reactive person-environment effects and, to some extent, evocative and proactive ones (Atkinson, Atkinson, Smith, Bem, & Nolen-Hoeksema, 1996; Plomin, DeFries, & Loehlin, 1977; Scarr, 1988; Scarr & McCartney, 1983). That is, people construe and respond to similar circumstances in different ways (e.g., positively reappraising their failure to complete graduate school or making inspiring comparisons with friends after meeting a potential Mr. Right). People evoke distinct responses from others (e.g., attracting social support from family members or promotions from bosses). And people select and construct different social worlds through their own acts (e.g., using humor to revive a stagnant relationship or choosing to pursue a career in a low-paying but intrinsically motivating field).

The utility of a construal approach is evident, for example, in comparison or discrepancy theories, which posit that a number of comparison processes influence whether external circumstances or events (e.g., a new job at a start-up firm or an empty nest) affect people's well-being. Research evidence suggests that comparisons with how one's peers are doing (e.g., Diener & Fujita, 1997; McFarland & Miller, 1994; Wheeler & Miyake, 1992), with one's experiences in the past (e.g., Strack, Schwarz, & Gschneidinger, 1985; Tversky & Griffin, 1991), and with one's desires and ideals (e.g., Carver & Scheier, 1998; Michalos, 1985) influence whether the present makes one happy.

Related to these approaches are theories that focus on the extent to which the content and the structure of the goals that people choose, as well as the amount of personal goal-related progress they perceive, impact well-being.

Studies indicate that happiness and satisfaction are enhanced when people's goals are (a) intrinsic—that is, concerned with community contribution, emotional intimacy, and personal growth (e.g., Kasser & Ryan, 1993, 1996), (b) self-concordant and congruent with one's motives and one's needs (e.g., Brunstein, Schultheiss, & Grassman, 1998; Sheldon & Elliot, 1999; Sheldon & Kasser, 1995), (c) feasible and realistic (e.g., Diener & Fujita, 1995; Kasser, 1996; McGregor & Little, 1998; Oishi, Diener, Suh, & Lucas, 1999), (d) valued by one's culture (e.g., Cantor & Sanderson, 1999; Suh, 2000; Diener & Diener, 1995), and (e) not conflicting (e.g., Emmons, 1986, 1996; Emmons & King, 1988; Sheldon & Kasser, 1995). Furthermore, people appear to be relatively happier when they (a) choose to pursue success, rather than to avoid failure (Elliot & Sheldon, 1997; Elliot, Sheldon & Church, 1997), (b) are highly committed to their goals (Brickman & Coates, 1987; Brunstein, 1993; Cantor & Sanderson, 1999), and (c) believe that they are making progress toward them (Carver, Lawrence, & Scheier, 1996; Csikszentmihalyi, 1990; Emmons, 1986).

People's cognitive responses to both ordinary and extraordinary life events have also been found to be associated with different levels of well-being. For example, happier and more satisfied people are relatively more likely to be characterized by optimistic strategies and biases shown in response to life's victories and defeats—that is, tendencies (a) to perceive and frame life circumstances in positive ways (e.g., DeNeve & Cooper, 1998; McCrae & Costa, 1986; Stones & Kozma, 1986), (b) to expect favorable life circumstances in the future (Scheier & Carver, 1993; Seligman, 1991; Taylor & Brown, 1988), (c) to feel control over one's outcomes (Bandura, 1997; Grob, Stetsenko, Sabatier, Botcheva, & Macek, 1999; Seligman, 1991; Taylor & Brown, 1988), and (d) to possess confidence about one's abilities and skills (Kozma & Stones, 1978; Lyubomirsky & Lepper, 2000; Taylor & Brown, 1988). In addition, inclinations to encode into memory the negative aspects of events (e.g., Seidlitz & Diener, 1993) and to dwell and reflect excessively on oneself and on one's problems (Lyubomirsky, Caldwell, & Nolen-Hoeksema, 1998; Lyubomirsky & Nolen-Hoeksema, 1993, 1995; Lyubomirsky, Tucker, Caldwell, & Berg, 1999; Pierce et al., 1998) have been inversely related to well-being.

Finally, theoretical models of coping with stress or trauma (e.g., Folkman, 1997; Ryff et al., 1998; Taylor & Aspinwall, 1996) describe cognitive and motivational processes that people use—whether actively and consciously or through habit—in ways that appear to diminish distress and to enhance happiness. For example, studies reveal relatively greater well-being among people (a) who show positive illusions, that is, bolstered perceptions of themselves, their futures, and the extent of their control (e.g., Armor & Taylor, 1998; Scheier & Carver, 1993; Taylor, 1983; Taylor & Armor, 1996), (b) who derive positive meaning from negative events (e.g., Folkman, 1997; McCrae & Costa, 1986; Taylor, 1983), (c) who use humor (e.g., Martin & Lefcourt, 1983; Nezu, Nezu, & Blissett, 1988) and spirituality and faith (e.g., Folkman, 1997; Mc-

Crae & Costa, 1986; McIntosh, Silver, & Wortman, 1993; Myers, 2000) in coping with adversity, (d) who do not engage in repetitive, self-focused rumination (e.g., Nolen-Hoeksema & Morrow, 1991; Nolen-Hoeksema, Parker, & Larson, 1994), and (e) who use social comparisons in adaptive ways (e.g., Ahrens, 1991; Buunk, Collins, Taylor, Van Yperen, & Dakof, 1990; Gibbons, 1986; Taylor & Lobel, 1989).

Research Evidence: Comparing Happy and Unhappy People

In sum, the findings of a wealth of prior studies—those specifically focused on predicting well-being as an outcome variable and those focused on related constructs—are consistent with a construal approach to understanding individual differences in happiness. My research seeks to test predictions from a construal theory directly by investigating hedonically relevant processes in people who show exceptionally high or low levels of happiness. Accordingly, the paradigms typically involve comparing the responses of happy and unhappy participants to a variety of experimental manipulations. Such quasi-experimental designs allow for the testing of both main effects (e.g., unhappy people are more sensitive to performance feedback than happy ones) and interactions (e.g., this effect is more pronounced under unfavorable feedback conditions). Accumulating evidence from my laboratory supports the notion that happy and unhappy individuals differ in the particular cognitive, judgmental, and motivational strategies they use. Moreover, these cognitive and motivational processes appear to operate largely automatically and without awareness.

Measurement of Subjective Happiness

Unlike measures of subjective well-being, which include evaluations of overall life quality and ratings of positive and negative emotions, the measure of happiness used in our research involves a global, subjective assessment of whether one is a happy or an unhappy person. Hence, this measure reflects a broader and more molar category of well-being, tapping into more global psychological phenomena (Lyubomirsky & Lepper, 1999; cf. Diener, 1994). Indeed, a judgment of the extent to which one is a happy person (or an unhappy one) is likely not equivalent to a simple sum of one's recent levels of affect and one's satisfaction with life. In our studies, participants are selected on the basis of their responses to the four-item Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999). Two items ask respondents to characterize themselves using both absolute ratings and ratings relative to peers, whereas the other two items offer brief descriptions of happy and unhappy individuals and ask respondents the extent to which each characterization describes them. Responses to the four items are then combined and averaged to provide a single continuous composite score, ranging from 1 to 7.² Depending on the study, those scoring above the median or in the top quartile of the distribution are classified as "happy" and those scoring below the median or in the bottom quartile are classified as "unhappy." Fur-

thermore, to ensure that our unhappy participants are not, in fact, depressed, mildly to moderately dysphoric individuals are routinely excluded from participation.

Social Comparison

In several studies, we have found that self-rated happy individuals appear to be less sensitive to social comparison information—especially unfavorable information—than are unhappy ones. Our research paints a portrait of unhappy individuals who are deflated rather than delighted about their peers' accomplishments and triumphs and are relieved rather than disappointed or sympathetic in the face of their colleagues' and acquaintances' failures and undoings. For example, in one experiment, students solved anagrams in the presence of a confederate who performed the task at a much faster or much slower pace (Lyubomirsky & Ross, 1997, Study 1). In another experiment, students received positive or negative feedback on a novel teaching task, and then heard a peer receive even more positive or even more negative feedback than they themselves did (Lyubomirsky & Ross, 1997, Study 2). In both studies, although the moods, self-confidence, and evaluations of personal abilities of both happy and unhappy individuals were bolstered by information about inferior peer performance, happy individuals were relatively less influenced by the superior performance of a peer. Indeed, one striking finding was that unhappy students reported feeling happier and more self-confident when they had received a *poor* evaluation (but heard their peer receive an even worse one) than when they

² This simple measure of global subjective happiness has been found to have good to excellent validity and reliability in 14 studies ($N = 2,732$). Data have been collected in Russia from students and community-based adults, and in the United States from students on two college campuses and one high school campus, from working adults in two California cities, and from retirees. The SHS has demonstrated high internal consistency (Cronbach's alphas range from .85 to .95 in 8 different studies), a unitary structure, and high test-retest reliability (Pearson's $r = .90$ for four weeks and .71 for three months, across laboratory and in-home testing sessions). It further has been shown to correlate highly with informant ratings of happiness ($r = .65$). Examination of construct validity indicated that the measure correlates highly with other happiness measures and moderately with theoretically and empirically related constructs. For example, moderate correlations have been found with Scheier and Carver's (1985) Life Orientation Test, a measure of optimism (r s range from .47 to .62 in 4 studies), Rosenberg's (1965) Self-Esteem Scale (r s range from .53 to .58 in 4 studies), the Beck Depression Inventory (Beck, 1967; r s range from -.49 to -.55 in four studies), Gray's (1990) behavioral approach system ($r = .31$), extraversion ($r = .36$) and neuroticism ($r = -.50$) as assessed by the Eysenck Personality Questionnaire (H. J. Eysenck & Eysenck, 1975), and positive emotionality ($r = .48$) and negative emotionality ($r = -.39$) as assessed by Tellegen's (1985) Differential Personality Questionnaire. Furthermore, the SHS has shown strong relationships with widely used scales of subjective well-being, such as Bradburn's (1969) Affect-Balance Scale (r s range from .49 to .64 in 3 studies), and his global happiness item (r s range from .57 to .69 in 3 studies), Andrews and Withey's (1976) Terrible-Delighted Scale (r s range from .59 to .71 in 3 studies), and Diener, Emmons, Larson, and Griffin (1985) Satisfaction with Life Scale (r s range from .61 to .69 in 4 studies). Finally, evidence of discriminant validity is reflected in near-zero correlations with theoretically unrelated constructs, including academic ability, stressful life events, and behavioral inhibition, as well as demographic variables. For more detailed information on the characteristics of this measure, see Lyubomirsky and Lepper (1999).

had received an *excellent* evaluation (but heard their peer receive an even better one). Happy students, by contrast, did not show this pattern of sensitive responding to comparisons with peers.

Conceptually replicating these findings, two subsequent studies revealed that happy participants are also less influenced than unhappy ones by the relative performance of a competing group or team, as well as by their individual rank (Lyubomirsky & Tucker, 2000). For example, in one study, students working in teams of four competed against one other team in their performance on a novel word-generation task. After learning that their team had lost, unhappy students reported that they personally performed less well than did happy students, predicted that they would perform less well in the future on a similar task, and showed greater decreases in positive affect. The pattern of results suggested that unhappy people held themselves culpable for their team's losses, but failed to commend themselves for their team's victories.

Empirical evidence and anecdotal experience suggest that social comparison is an active, dynamic, and flexible process (see Wood, 1989), which may be used in the service of boosting or diminishing one's mood and self-regard. Thus, it is not surprising that chronically happy and unhappy people would differ in how they distort or manipulate social comparison information, how they use such information, and how they respond to it. The two groups may perceive, interpret, and weigh social comparison information differently, or they may draw from it enormous versus trivial implications. For example, happy people may view their abilities as relatively more malleable than fixed (see Dweck, 1999; Dweck & Leggett, 1988), so that a peer's exceptional performance constitutes not a threat but an incentive and an indication of their own prospects for future success. Our research suggests that happy individuals appear to be more inclined than unhappy ones to use social comparison information sparingly and to use it selectively to protect their well-being and self-esteem. For example, in the studies from our laboratory, happy students gave weight to relevant social comparison information only when it served to soften the implications of a poor evaluation, not when it threatened to undermine the value of a positive one. By contrast, unhappy students appeared to monitor information about peer performance carefully and conscientiously, exerting effort to bolster their well-being and self-esteem by actively (albeit unsuccessfully) pursuing favorable ways to compare themselves with others. Notably, in all the research from my laboratory, the pattern of results sometimes highlights a strategy used by happy individuals (but not unhappy ones), sometimes highlights a process shown solely by unhappy individuals, and sometimes brings into relief the two groups on a continuum (i.e., one group manifesting a process more than the other).

Postdecisional Rationalization

Another illustration of unhappy individuals' relatively broader sensitivity to information carrying hedonic stakes has been observed in the context of situations involving choice or the restriction of alternatives, or both. One set of

studies from our laboratory, for example, examined post-decisional rationalization and regret in college students, who selected among different foods, and in high school students, who made more consequential college choices. In one study, high school seniors evaluated colleges after applying for admission and then later after making their selections (Lyubomirsky & Ross, 1999, Study 1). In another study, undergraduates rated the attractiveness of desserts before and after learning which particular one they would receive (Lyubomirsky & Ross, 1999, Study 2). Our findings from both studies suggested that self-rated happy and unhappy individuals responded differently—and in a manner supportive of their affective temperaments—in reducing dissonance in the aftermath of decision making. Whether in choosing fancy desserts or selecting among prospective colleges, happy students tended to be satisfied with *all* of their options—even those they did not ultimately choose or receive—and to reduce dissonance only in the face of real ego threat (e.g., by sharply devaluing desirable colleges that rejected them). By contrast, unhappy students generally reduced dissonance by deciding that what they chose or received was mediocre but that the options they were denied were even worse.

Event Construal

Chronically happy and unhappy individuals have also been found to differ in the ways in which they respond to life events and daily situations, large and small. For example, three studies supported the notion that happy and unhappy individuals interpret, remember, and indeed experience both real and hypothetical life events in a way that serves to reinforce their respective affective dispositions (Lyubomirsky & Tucker, 1998). For example, students nominated by their peers as "very happy" reported experiencing similar types of positive and negative life events as did peer-nominated unhappy students. However, several weeks later, happy students tended to recall and think about both types of events more favorably and adaptively—for example, by drawing humor or didactic value from adversity or by emphasizing recent improvement in their lives. In another study, all of the participants interacted with a female peer in the laboratory, then watched a series of videotapes depicting a stranger in three different situations. Happy individuals liked the person they met and recalled her in more favorable terms, more than did unhappy ones. The same pattern of results, albeit weaker, was found for liking the videotaped stranger. In sum, these findings suggest that happy people perceive, evaluate, and think about the same events in more positive ways than do unhappy ones. When such perceptions and experiences are repeated over a lifetime, happy and unhappy people may be able to preserve (or even promote) their happiness and unhappiness, respectively.

Self-Reflection

Notwithstanding research evidence suggesting that happy individuals are relatively better equipped to manage life's stresses, downturns, and uplifts, they sometimes seem markedly less outwardly concerned with hedonic manage-

ment than their unhappy peers. Recent research in our laboratory has focused on testing the hypothesis that happy individuals are less inclined than unhappy ones to self-reflect and dwell about themselves, their outcomes, and their moods. For example, several studies have demonstrated that unhappy individuals are relatively more likely to dwell on negative or ambiguous events, such as difficult decisions or unfavorable social comparisons (Lyubomirsky et al., 2000; Lyubomirsky & Ross, 1999). Unfortunately, such extensive dwelling or rumination may drain cognitive resources and thus bring to bear a variety of negative consequences, which could further reinforce unhappiness. For example, four experiments revealed that, after being outperformed by a fellow student or after trying to solve impossible anagrams, unhappy individuals spent significantly longer reading a passage from the Graduate Record Examination and completing a memory test, and showed poorer reading comprehension (Kim & Lyubomirsky, 1997; Lyubomirsky et al., 2000). These findings demonstrate some of the maladaptive by-products of self-reflection. That is, in addition to thwarting successful coping with life's problems (cf. Lyubomirsky & Tucker, 1998), this cognitive and motivational process may actually compound those very problems, qualifying it as a poor recipe for happiness.

Happiness Versus Related Individual Difference Variables

A question that remains to be addressed is whether these documented effects reflect the role of chronic happiness *per se* rather than that of self-esteem, optimism, extraversion, sensitivity to reward, or other individual difference constructs that intuition and prior research alike suggest should be related to happiness (see Lyubomirsky & Lepper, 2000, for a review). To address this issue, we have systematically tested (a) whether group differences in responses to hedonically relevant outcomes could be accounted for by controlling for differences in two factors traditionally associated with happiness, that is, optimism and self-esteem, and (b) whether these two factors would prove as potent as happiness when used as grouping variables. We are encouraged by our findings that, in every study examined so far, the differences found between happy and unhappy individuals have proven to be largely independent of optimism and self-esteem (Lyubomirsky et al., 2000; Lyubomirsky & Ross, 1997, 1999; Lyubomirsky & Tucker, 2000).

Although the extent to which other relevant individual difference variables might have independent predictive power in our studies is not yet known, it is worth speculating about the role of such factors as extraversion and neuroticism. Extraverts, like happy individuals, appear to be more sensitive to reward and thus may be inclined toward pleasant, positive emotions, whereas neurotics, like unhappy individuals, appear to be more sensitive to punishment, and thus may experience more frequent unpleasant, negative emotions (Gray, 1990; see also Diener et al., 1999). However, in none of the studies from my laboratory has the positivity of participants' emotional state provided a satisfactory account of the results. That is, group differ-

ences in our participants' responses and construals remain significant even after statistically controlling for current mood. Furthermore, in a recently completed study (Tucker, 2000), differences found between happy and unhappy students in their appreciation of both the trivial and the sublime (e.g., the experience of "finding a penny on the sidewalk," "the birth of your own child," or "looking at the stars") remained after covarying out a measure of a construct presumably closely linked with extraversion—behavioral activation sensitivity (Gray, 1990). Whether such related constructs may serve as necessary or sufficient conditions for happiness remains a topic for future research, as does the nature of the mechanisms that underlie the relationships in question (e.g., see Lyubomirsky & Lepper, 2000).

Future Research Directions

A common thread running through the research described above is that happy and unhappy individuals appear to experience—indeed, to reside in—different subjective worlds. Thus, promising research directions in pursuit of the sources of happiness lie in investigating additional cognitive and motivational processes that support the differing worlds of enduring happiness versus chronic unhappiness. Indeed, an array of psychological processes, which have previously been shown to have positive, negative, or mixed hedonic stakes, can potentially be tested for their role in sustaining or enhancing chronic well-being. Thus, further research drawing on prior theoretical work may prove fruitful in advancing our understanding of the causes of happiness, which is critical to a comprehensive scientific study of optimal human functioning (Seligman & Csikszentmihalyi, 2000).

As a case in point, prospect theory (Kahneman & Tversky, 1979) makes a number of predictions about which types of preferences, decisions, and framings of events have positive versus negative hedonic implications. For example, on the basis of an analysis of mental accounting, hedonic experiences should be optimized if people prefer to integrate losses (e.g., receive two rejection letters from an editor on the very same day), but to segregate gains (e.g., earn two bonuses on two separate days); Tversky & Kahneman, 1981; for empirical evidence, see Linville & Fischer, 1990; cf. Showers, 2000). Another example drawn from prospect theory is that people should feel more pain when construing a problem or an unfavorable event (e.g., a rejection letter or a breakdown of the family car) as a loss rather than a cost (Tversky & Kahneman, 1981). Because happy and unhappy people show cognitive, judgmental processes and strategies that seem to maintain or even boost their relative happiness and unhappiness, a construal approach applied to prospect theory predicts that happy people will choose to combine negative events and separate positive ones and to construe a rejection or a setback as the cost of doing business. Similar analyses can be developed on the basis of a variety of other theories, ranging from dissonance (Aronson, 1969; Festinger, 1957; cf. Lyubomirsky & Ross, 1999) and reactance (Brehm & Brehm, 1981; Wicklund, 1974) to self-affirmation (Steele, 1988) and time

perspective (Zimbardo & Boyd, 1999). The distinctions between maximizing and satisficing (Simon, 1976; cf. Schwartz, Ward, & Monterosso, 2000), independent versus interdependent self-construals (Markus & Kitayama, 1991), and incremental versus entity theories of intelligence (Dweck, 1999; Dweck & Leggett, 1988) may also serve as valuable points of departure for investigating differences between chronically happy and unhappy people. For example, a construal perspective predicts that happy individuals will be relatively less inclined to strive to maximize all of their options or to experience reactance and regret, yet more prone to focus on the present or to believe that their intelligence can be increased.

Future research also promises to address additional questions raised by the construal approach to happiness. First, is the principal force underlying the documented differences between happy and unhappy individuals cognitive or motivational? Or, might these processes be linked in such a way that their unique contributions cannot be disentangled? One objective for future investigators would be to identify and measure the primary hedonically relevant motivations underlying happiness and unhappiness and to specify the links between these motivations and specific cognitive processes. Although almost everyone professes a desire to be happy (e.g., Diener et al., 1995), not all people share the goals and motivations compatible with happiness. That is, some individuals are principally motivated to perceive the world in positive ways—to appreciate themselves, to like other people, and to value the world at large, to be satisfied with what they have rather than focusing on what they do not have (cf. Taylor & Brown, 1988). In contrast, the primary motivation of other individuals is to perceive themselves, other people, and the world around them in a realistic manner (i.e., to see things as they really are), to seek to understand themselves and their universe, and to maintain a consistent and accurate self-image (cf. Swann, 1983). As my findings suggest, these two sets of motivational processes are likely to be associated with greater chronic happiness and unhappiness, respectively. Such individual differences in hedonically related motivational concerns may have practical implications as well. For example, a vexing possibility is that the motivational processes underlying unhappiness may serve as a barrier to happiness-increasing interventions. That is, chronically unhappy individuals may not desire to reframe unexpected, negative life events in positive and optimistic ways or to avoid making comparisons with peers or to cope with traumatic outcomes through forgiveness and faith. These individuals may forego being happy in order to be “right.” Thus, hedonic motivation should be an important focus of researchers concerned with happiness and well-being.

A second question for further research is to what extent can a construal approach to happiness be applied and generalized to other cultures or invoked to account for cultural variations in well-being? For example, cultural norms encouraging or deterring such practices as social comparison or self-reflection may moderate the effects of these psychological processes on the happiness of cultural members. Also, motives to pursue happiness or to focus on

the positive aspects of experience may be reinforced or restrained in certain cultures (e.g., Lyubomirsky, 2000).

Finally, the question of causal direction remains an important topic of investigation for the future. That is, do the aforementioned cognitive and motivational processes directly increase happiness, or does happiness promote their use, or, alternatively, does a third factor possibly play a role in the relationship between hedonic functioning and construal processes? There is reason to believe, both from research experience and anecdotal evidence, that the influence is bidirectional (e.g., Ekman & Davidson, 1994; Fiske & Taylor, 1991; Forgas, 1995; Wegner & Pennebaker, 1993)—indeed, that the pathway may be cyclical and self-perpetuating. That is, one’s level of happiness may promote particular construals of the world, which, in turn, increase or maintain one’s happiness, and so on. Future research could shed light on the nature of this process and the mechanisms that underlie it by using experimental designs in which participants’ cognitive and motivational strategies are manipulated or retrained.

Prescriptive Implications and Challenges for Future Interventions

The pursuit of happiness has long been an American cultural obsession. From philosophers and policymakers to poets, novelists, and self-help gurus, the secret to happiness has remained a subject of tremendous interest. Philosophers, from Aristotle and Epicurus to Mill and James, have offered widely divergent prescriptions for the happy life. Likewise, during the last several decades, authors of U.S. popular psychology have claimed that one can gain happiness via a myriad of ways—through the power of positive thinking, by finding one’s inner child, by becoming one’s own best friend, by not sweating the small stuff, or by not loving too little or too much. In light of both academic and popular interest, it is important to consider the implications of an approach to happiness centered on underlying cognitive and motivational processes for practical prescriptions for reinforcing or enhancing well-being. Because almost no well-controlled research exists in this area, such implications must necessarily be speculative.

An important question to consider is whether the cognitive and motivational processes associated with relatively greater happiness can be nurtured, acquired, or directly taught. Indeed, would it be wise or even prudent to attempt to increase individual levels of well-being? Hence, one ostensibly daunting challenge to happiness-enhancing interventions deserves mention. Accumulating evidence for a genetic predisposition to happiness³ (e.g., Braungart, Plomin, DeFries, & Fulker, 1992; Tellegen et al., 1988), combined with findings for its high cross-temporal stability (e.g., Costa, McCrae, & Zonderman, 1987; Headey & Wearing, 1989) and relations to personality (see Diener & Lucas, 1999, for a review), suggest to some researchers that

³ For emerging work on the biological roots of happiness and positive affect, see Ashby, Isen, and Turken (1999), Gray (1990), and Davidson (1999).

“trying to be happier is as futile as trying to be taller” (Lykken & Tellegen, 1996, p. 189). However, rather than discouraging further research, results indicating that people’s happiness may be constrained to a set range can alternatively be interpreted as providing impetus to investigations of how to elevate each individual toward the high point of that range. Furthermore, even heritability coefficients as high as 50% to 80%, as Lykken and Tellegen (1996) have found, do not rule out the possibility that the mean level of happiness for a specific population can be raised. Finally, because it is unlikely that genes have a direct influence on happiness, it may be possible to intervene at the level of at least a subset of the intermediate processes, such as potentially malleable aspects of cognition (e.g., encouraging people to distract themselves after a disappointing performance; Lyubomirsky et al., 2000) and behavior (e.g., cultivating the conditions that promote “flow”; Csikszentmihalyi, 1990). Indeed, one direction for positive psychology might be to test systematically which processes are mutable in the majority of people and which are not (cf. Seligman, 1994).

Although happiness-enhancing research is still in its infancy, a few researchers have had preliminary success, albeit limited and short term, at such endeavors (e.g., Fordyce, 1977; Lichter, Haye, & Kammann, 1980; Sheldon, Kasser, Smith, & Share, in press; cf. Gloaguen, Cottraux, Cucherat, & Blackburn, 1998; Shatté, Gillham, & Reivich, in press). As an illustration, in one study, undergraduates partook in a semester-long intervention designed to modify their construals of their personal goals (e.g., to perceive greater meaningfulness within their goals, as well as a more optimal balance among them) and to provide strategies for their goal attainment (Sheldon et al., in press). The researchers succeeded in helping a portion of the participants to attain their goals and enhance their psychological well-being. Thus, I am optimistic that future research—prospective and longitudinal studies, in particular—will yield yet more successful interventions. One challenge to such investigations will be to identify effective and enduring ways to retrain people’s cognitive and motivational strategies. Another will be to determine how to maintain successful gains and, perhaps, even to initiate an upward spiral (Sheldon & Houser-Marko, 2001). Finally, a third challenge will be to address the question of how to enhance happiness without forfeiting goodness or truth (cf. Schwartz, in press).

Concluding Remark

There are multiple perspectives of ourselves, our circumstances, and the world at large—some more positive and affirming, others relatively hopeless and dark. A construal theory of happiness suggests that these alternative perspectives and constructions of reality have different hedonic consequences and, as such, are associated with different levels of enduring happiness and well-being. As Abraham Lincoln wisely said, “Most people are about as happy as they make up their minds to be” (Barton, 1976).

REFERENCES

- Ahrens, A. H. (1991). Dysphoria and social comparison: Combining information regarding others’ performances. *Journal of Social and Clinical Psychology, 10*, 190–205.
- Andrews, F. M., & Withey, S. B. (1976). *Social indicators of well-being: America’s perception of life quality*. New York: Plenum Press.
- Argyle, M. (1987). *The psychology of happiness*. London: Methuen.
- 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.). Harmondsworth, NY: Penguin.
- Armor, D. A., & Taylor, S. E. (1998). Situated optimism: Specific outcome expectations and self-regulation. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 30, pp. 309–379). New York: Academic Press.
- Aronson, E. (1969). A theory of cognitive dissonance: A current perspective. *Advances in Experimental Social Psychology, 2*, 21–34.
- 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.
- Atkinson, R. L., Atkinson, R. C., Smith, E. E., Bem, D. J., & Nolen-Hoeksema, S. (1996). *Hilgard’s introduction to psychology* (12th ed.). Fort Worth, TX: Harcourt Brace.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Barton, W. E. (1976). *Abraham Lincoln and his books: With selections from the writings of Lincoln and a bibliography of books in print relating to Abraham Lincoln*. Folcroft, PA: Folcroft Library Editions.
- Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York: Harper & Row.
- Bradburn, N. M. (1969). *The structure of psychological well-being*. Chicago: Alpine.
- Braungart, J. M., Plomin, R., DeFries, J. C., & Fulker, D. W. (1992). Genetic influence on tester-rated infant temperament as assessed by Bayley’s Infant Behavior Record: Nonadoptive and adoptive siblings and twins. *Developmental Psychology, 28*, 40–47.
- Brehm, J. W., & Brehm, S. S. (1981). *Psychological reactance: A theory of freedom and control*. New York: Academic Press.
- Brickman, P., & Coates, D. (1987). Commitment and mental health. In P. Brickman (Ed.), *Commitment, conflict, and caring* (pp. 222–309). Englewood Cliffs, NJ: Prentice-Hall.
- 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.
- Bruner, J. (1986). *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.
- Brunstein, J. C. (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.
- Buunk, B. P., Collins, R. L., Taylor, W. E., Van Yperen, N. W., & Dakof, G. A. (1990). The affective consequences of social comparison: Either direction has its ups and downs. *Journal of Personality and Social Psychology, 59*, 1238–1249.
- Cantor, N., & Sanderson, C. A. (1999). Life task participation and well-being: The importance of taking part in daily life. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 230–243). New York: Russell Sage Foundation.
- Carver, C. S., Lawrence, J. W., & Scheier, M. F. (1996). A control-process perspective on the origins of affect. In L. L. Martin & A. Tesser (Eds.), *Striving and feeling: Interactions among goals, affect, and regulation* (pp. 11–52). Mahwah, NJ: Erlbaum.
- Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York: Cambridge University Press.
- 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.
- 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.
- DeNeve, K. M. (1999). Happy as an extraverted clam? The role of personality for subjective well-being. *Current Directions in Psychological Science*, 8, 141–144.
- 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.
- 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., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology*, 68, 653–663.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49, 71–75.
- 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., & Fujita, F. (1997). Social comparisons and subjective well-being. In B. Buunk & R. Gibbons (Eds.), *Health, coping, and social comparison* (pp. 329–357). Mahwah, NJ: Erlbaum.
- Diener, E., Horwitz, J., & Emmons, R. A. (1985). Happiness of the very wealthy. *Social Indicators Research*, 16, 263–274.
- 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.
- Diener, E., & Oishi, S. (2000). Money and happiness: Income and subjective well-being across nations. In E. Diener & E. M. Suh (Eds.), *Culture and subjective well-being* (pp. 185–218). Cambridge, MA: MIT Press.
- 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. K., Smith, H., & Shao, L. (1995). National differences in reported well-being: Why do they occur? *Social Indicators Research*, 34, 7–32.
- Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Philadelphia, PA: Psychology Press.
- Dweck, C. S., & Leggett, E. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95, 256–273.
- Ekman, P., & Davidson, R. J. (1994). *The nature of emotion: Fundamental questions*. Oxford, England: Oxford University Press.
- Elliot, A. J., & Sheldon, K. M. (1997). Avoidance achievement motivation: A personal goals analysis. *Journal of Personality and Social Psychology*, 73, 171–185.
- Elliot, A. J., Sheldon, K. M., & Church, M. A. (1997). Avoidance personal goals and subjective well-being. *Personality and Social Psychology Bulletin*, 23, 915–927.
- Emmons, R. A. (1986). Personal strivings: An approach to personality and subjective well-being. *Journal of Personality and Social Psychology*, 51, 1058–1068.
- Emmons, R. A. (1996). Striving and feeling: Personal goals and subjective well-being. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 313–337). New York: Guilford Press.
- 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.
- Eysenck, H. J., & Eysenck, S. B. G. (1975). *Manual of the Eysenck Personality Questionnaire*. London: Hodder & Stoughton.
- Eysenck, M. W. (1990). *Happiness: Facts and myths*. East Sussex, England: Erlbaum.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Fiske, S. T., & Taylor, S. E. (1991). *Social cognition* (2nd ed.). New York: McGraw-Hill.
- Folkman, S. (1997). Positive psychological states and coping with severe stress. *Social Science and Medicine*, 45, 1207–1221.
- Fordyce, M. W. (1977). Development of a program to increase personal happiness. *Journal of Counseling Psychology*, 24, 511–521.
- Forgas, J. P. (1995). Mood and judgment: The affect infusion model (AIM). *Psychological Bulletin*, 117, 39–66.
- Freedman, J. (1978). *Happy people: What happiness is, who has it, and why*. New York: Harcourt Brace Jovanovich.
- Gibbons, F. (1986). Social comparison and depression: Company's effect on misery. *Journal of Personality and Social Psychology*, 51, 140–148.
- 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.
- Grob, A., Stetsenko, A., Sabatier, C., Botcheva, L., & Macek, P. (1999). A cross-national model of subjective well-being in adolescence. In F. D. Alsaker, A. Flammer, & N. Bodmer (Eds.), *The adolescent experience: European and American adolescents in the 1990s* (pp. 115–130). New York: Erlbaum.
- 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.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 263–291.
- Kasser, T. (1996). Aspirations and well-being in a prison setting. *Journal of Applied Social Psychology*, 26, 1367–1377.
- Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: Correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, 65, 410–422.
- 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.
- Kim, D. D., & Lyubomirsky, S. (1997). *Effects of unfavorable social comparisons on cognitive interference in happy and unhappy people*. Unpublished honors thesis, Department of Psychology, University of California, Riverside.
- Kozma, A., & Stones, M. J. (1978). Some research issues and findings in the assessment of well-being in the elderly. *Canadian Psychological Review*, 19, 241–249.
- Lichter, S., Haye, K., & Kammann, R. (1980). Increasing happiness through cognitive training. *New Zealand Psychologist*, 9, 57–64.
- Linville, P. W., & Fischer, G. W. (1990). Preferences for separating or combining events. *Journal of Personality and Social Psychology*, 59, 1–18.
- Lykken, D., & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science*, 7, 186–189.
- Lyubomirsky, S. (2000). *Cultural differences in the pursuit of happiness: The case of the United States vs. Russia*. Unpublished manuscript, Department of Psychology, University of California, Riverside.
- Lyubomirsky, S., Caldwell, N. D., & Nolen-Hoeksema, S. (1998). Effects of ruminative and distracting responses to depressed mood on the retrieval of autobiographical memories. *Journal of Personality and Social Psychology*, 75, 166–177.
- Lyubomirsky, S., Kasri, F., & Zehm, K. (2000). *Hedonic casualties of self-reflection*. Unpublished manuscript, Department of Psychology, University of California, Riverside.
- Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, 46, 137–155.
- Lyubomirsky, S., & Lepper, H. S. (2000). *What are the differences between happiness and self-esteem?* Manuscript submitted for publication.
- Lyubomirsky, S., & Nolen-Hoeksema, S. (1993). Self-perpetuating properties of dysphoric rumination. *Journal of Personality and Social Psychology*, 65, 339–349.
- Lyubomirsky, S., & Nolen-Hoeksema, S. (1995). Effects of self-focused

- rumination on negative thinking and interpersonal problem solving. *Journal of Personality and Social Psychology*, 69, 176–190.
- 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., & Ross, L. (1999). Changes in attractiveness of elected, rejected, and precluded alternatives: A comparison of happy and unhappy individuals. *Journal of Personality and Social Psychology*, 76, 988–1007.
- Lyubomirsky, S., & Tucker, K. L. (1998). Implications of individual differences in subjective happiness for perceiving, interpreting, and thinking about life events. *Motivation and Emotion*, 22, 155–186.
- Lyubomirsky, S., & Tucker, K. L. (2000). *Social comparison processes among happy and unhappy people: Affective and cognitive responses to hedonically conflicting feedback*. Manuscript submitted for publication.
- Lyubomirsky, S., Tucker, K. L., Caldwell, N. D., & Berg, K. (1999). Why ruminators are poor problem solvers: Clues from the phenomenology of dysphoric rumination. *Journal of Personality and Social Psychology*, 77, 1041–1060.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Martin, R. A., & Lefcourt, H. M. (1983). Sense of humor as a moderator of the relation between stressors and moods. *Journal of Personality and Social Psychology*, 45, 1313–1324.
- McCrae, R. R., & Costa, P. T. (1986). Personality, coping, and coping effectiveness in an adult sample. *Journal of Personality*, 54, 385–405.
- McFarland, C., & Miller, D. T. (1994). The framing of relative performance feedback: Seeing the glass as half empty or half full. *Journal of Personality and Social Psychology*, 66, 1061–1073.
- 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.
- McIntosh, D. N., Silver, R. C., & Wortman, C. B. (1993). Religion's role in adjustment to a negative life event: Coping with the loss of a child. *Journal of Personality and Social Psychology*, 65, 812–821.
- Michalos, A. C. (1985). Multiple Discrepancies Theory (MDT). *Social Indicators Research*, 16, 347–413.
- Myers, D. G. (1992). *The pursuit of happiness*. New York: William Morrow.
- 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.
- Nezu, A. M., Nezu, C. M., & Blissett, S. E. (1988). Sense of humor as a moderator of the relation between stressful events and psychological distress: A prospective analysis. *Journal of Personality and Social Psychology*, 54, 520–525.
- Nolen-Hoeksema, S., & Morrow, J. (1991). A prospective study of depression and posttraumatic stress symptoms after a natural disaster: The 1989 Loma Prieta earthquake. *Journal of Personality and Social Psychology*, 61, 115–121.
- Nolen-Hoeksema, S., Parker, L., & Larson, J. (1994). Ruminative coping with depressed mood following loss. *Journal of Personality and Social Psychology*, 67, 92–104.
- Oishi, S., Diener, E., Suh, E., & Lucas, R. E. (1999). The value as a moderator model in subjective well-being. *Journal of Personality*, 67, 157–184.
- Pierce, G. R., Ptacek, J. T., Taylor, B., Yee, P. L., Henderson, C. A., Joseph, H. J., & Loffredo, C. M. (1998). The role of dispositional and situation factors in cognitive interference. *Journal of Personality and Social Psychology*, 75, 1016–1031.
- Plomin, R., DeFries, J. C., & Loehlin, J. C. (1977). Genotype–environment interaction and correlation in the analysis of human behavior. *Psychological Bulletin*, 84, 309–322.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Ross, L. (1990). Recognizing the role of construal processes. In I. Rock (Ed.), *The legacy of Solomon Asch: Essays in cognition and social psychology* (pp. 77–96). Hillsdale, NJ: Erlbaum.
- Ryff, C. D., Singer, B., Love, G. D., & Essex, M. J. (1998). Resilience in adulthood and later life: Defining features and dynamic processes. In J. Lomranz (Ed.), *Handbook of aging and mental health: An integrative approach* (pp. 69–96). New York: Plenum Press.
- 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.
- Scarr, S. (1988). How genotypes and environments combine: Development and individual differences. In N. Bolger, A. Caspi, G. Downey, & M. Moorehouse (Eds.), *Persons in context: Developmental processes* (pp. 217–244). New York: Cambridge University Press.
- Scarr, S., & McCartney, K. (1983). How people make their own environments: A theory of genotype–environment effects. *Child Development*, 54, 424–435.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*, 4, 219–247.
- 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.
- Schwartz, B. (in press). 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*. Radner, PA: Templeton Foundation Press.
- Schwartz, B., Ward, A., & Monterosso, J. (2000). *Satisficing versus maximizing: Happiness is a matter of choice*. Manuscript in preparation, Department of Psychology, Swarthmore College.
- Seidlitz, L., & Diener, E. (1993). Memory for positive versus negative life events: Theories for the differences between happy and unhappy persons. *Journal of Personality and Social Psychology*, 64, 654–664.
- Seligman, M. E. P. (1991). *Learned optimism*. New York: Knopf.
- Seligman, M. E. P. (1994). *What you can change and what you can't*. New York: Knopf.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5–14.
- Shatté, A. J., Gillham, J. E., & Reivich, K. J. (in press). Promoting hope in children and adolescents. In J. E. Gillham & J. Templeton (Eds.), *The science of optimism and hope: Research essays in honor of Martin E. P. Seligman*. Radner, PA: Templeton Foundation Press.
- 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., & 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., Smith, K., & Share, T. (in press). Personal goals and psychological growth: Testing an intervention to enhance goal-attainment and personality integration. *Journal of Personality*.
- Sheldon, K. M., & Houser-Marko, A. (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.
- Showers, C. J. (2000). Self-organization in emotional contexts. In J. P. Forgas (Ed.), *Feeling and thinking: The role of affect in social cognition* (pp. 283–307). New York: Cambridge University Press.
- Silver, R. L. (1982). *Coping with an undesirable life event: A study of early reactions to physical disability*. Unpublished doctoral dissertation, Northwestern University, Evanston, IL.
- Simon, H. A. (1976). *Administrative behavior: A study of decision-making processes in administrative organization* (3rd ed). New York: Free Press.
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. *Advances in Experimental Social Psychology*, 21, 261–302.
- Stones, M. J., & Kozma, A. (1986). “Happy are they who are happy . . .”: A test between two causal models of happiness and its correlates. *Experimental Aging Research*, 12, 23–29.
- Strack, F., Schwarz, N., & Gschneidinger, E. (1985). Happiness and reminiscing: The role of time perspective, affect, and mode of thinking. *Journal of Personality and Social Psychology*, 49, 1460–1469.
- Suh, E. M. (2000). Self, the hyphen between culture and subjective well-being. In E. Diener & E. M. Suh (Eds.), *Culture and subjective well-being* (pp. 63–86). Cambridge, MA: MIT Press.
- Swann, Jr., W. B. (1983). Self-verification: Bringing social reality into

- harmony with the self. In J. Suls, & A. G. Greenwald (Eds.), *Social psychology perspectives* (Vol. 2, pp. 33–66). Hillsdale, NJ: Erlbaum.
- Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. *American Psychologist*, 38, 1161–1173.
- Taylor, S. E., & Armor, D. A. (1996). Positive illusions and coping with adversity. *Journal of Personality*, 64, 873–898.
- Taylor, S. E., & Aspinwall, L. G. (1996). Mediating and moderating processes in psychosocial stress: Appraisal, coping, resistance, and vulnerability. In H. B. Kaplan (Ed.), *Psychosocial stress: Perspectives on structure, theory, life course, and methods* (pp. 71–110). San Diego, CA: Academic Press.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103, 193–210.
- Taylor, S. E., & Lobel, M. (1989). Social comparison activity under threat: Downward evaluation and upward contacts. *Psychological Review*, 96, 569–575.
- Tellegen, A. (1985). Structures of mood and personality and their relevance to assessing anxiety, with an emphasis on self-report. In A. H. Tuma & J. D. Maser (Eds.), *Anxiety and the anxiety disorders* (pp. 681–706). Hillsdale, NJ: Erlbaum.
- 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.
- Tucker, K. L. (2000). *The role of the behavioral activation system in event construal: An examination of appreciation in happy and unhappy individuals*. Unpublished doctoral dissertation, University of California, Riverside.
- Tversky, A., & Griffin, D. (1991). Endowment and contrast in judgments of well-being. In F. Strack & M. Argyle (Eds.), *Subjective well-being: An interdisciplinary perspective* (pp. 101–118). Oxford, England: Pergamon Press.
- Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211, 453–458.
- Veenhoven, R. (1988). The utility of happiness. *Social Indicators Research*, 20, 333–354.
- Wegner, D. M., & Pennebaker, J. W. (1993). *Handbook of mental control*. Englewood Cliffs, NJ: Prentice Hall.
- Wicklund, R. A. (1974). *Freedom and reactance*. Potomac, MD: Erlbaum.
- Wheeler, L., & Miyake, K. (1992). Social comparison in everyday life. *Journal of Personality and Social Psychology*, 62, 760–773.
- Wood, J. V. (1989). Theory and research concerning social comparisons of personal attributes. *Psychological Bulletin*, 106, 231–248.
- Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology*, 77, 1271–1288.