CHAPTER 10 ILLUSION AND WELL-BEING

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CHAPTER 10 ILLUSION AND WELL-BEING

An impartial and objective attitude toward oneself . . . is a primary virtue, basic to the development of all others. —Allport (1937, P.422)

Life is the art of being well-deceived; and in order that the deception may succeed it must be habitual and uninterrupted. —Hazlitt (1817)

Allport and Hazlitt offer very different ideas about the value of self-insight. Allport extols the merits of accurate self-knowledge. He urges people to "get in touch with themselves," to "know themselves," and "to be true to themselves." In short, Allport counsels us to embrace the truth about ourselves without bias or distortion. Hazlitt presents a different point of view. Hazlitt champions the benefits of self-deception. He argues that "ignorance is bliss" and that people are better served by not knowing what they are really like.

In Chapter 10, we will examine these arguments as they apply to self-knowledge of an evaluative nature. We will begin by considering the relation between self-knowledge and psychological well-being. The key issue here is whether psychological health is characterized by accurate, unbiased self-views. We will then look at research that has examined the benefits of positive thinking. Here we will see that positive beliefs about oneself, one's ability to control important outcomes in life, and an optimistic view of the future are common and are commonly linked to superior psychological functioning. Finally, we will explore some potential limitations of highly positive self-views, especially as they relate to social functioning and risk perception.

I. Self-Knowledge and Psychological Health

A. Accurate Self-Knowledge Is Necessary for Psychological Health

Many theorists have pondered the relation between self-knowledge and psychological well-being. Most have concluded that accurate self-knowledge is a hallmark of mental health. For example, Jahoda (1958) described the mentally healthy person as one who is capable of perceiving oneself as one actually is, without distorting one's perceptions to fit one's wishes. Similarly, Maslow (1950) wrote that healthy individuals are able to accept themselves and their own nature, with all of its discrepancies from their ideal image. Fromm (1955), Haan (1977), Menninger (1963), Rogers (1951), and others have concurred that accurate self-knowledge is a principal component of psychological well-being. Many of the therapies these scholars developed assume that psychological health can be achieved only when individuals come to see themselves as they really are.

In sum, though not the only view of mental health (see, for example, Becker, 1973; Rank, 1936), many prominent theorists have asserted that accurate self-knowledge is an essential element of mental health. In one sense, this assertion is unquestionably true. People who have delusions of grandeur or believe their actions are determined by aliens

are not paragons of mental health. Grossly inaccurate self-views are clearly detrimental to psychological well-being. But is accuracy necessary? Must people know what they are really like to be healthy?

1. Empirical Evidence: Do Most People Possess Accurate Self-Knowledge?

One way to approach this issue is to first ask whether most people possess accurate self-knowledge. This question is relevant because conceptions of mental health are partly based on a normative model: What's normative, is considered normal. To illustrate, people who score near the fiftieth percentile on an anxiety scale are said to have normal anxiety levels; those who score at the upper end of the distribution are said to be abnormally anxious. In a similar vein, we can gain insight into whether accuracy is associated with normal functioning by looking at whether most people possess accurate self-views.

We will use Beck's (1967, 1976) theory of depression as a framework for examining this issue. As discussed in Chapter 9, Beck argued that depressed people possess negatively biased views of themselves, their world, and their future (i.e., the negative cognitive triad). In contrast, nondepressed (normal) people were thought to hold accurate views of themselves in these three areas. In the following sections, we will examine the evidence for these assertions.

2. Accuracy and Bias in Self-Evaluations

Evidence relevant to the first of these issues has been reviewed throughout this text (see especially, Chapters 3 and 8). When it comes to self-knowledge of an evaluative nature (e.g., people's ideas about how attractive, intelligent, socially skilled, and loyal they are), many people do not possess entirely accurate self-views. Instead, many (perhaps most) people think they are better than they really are.

Evidence supporting this conclusion abounds. In Chapter 3, we noted that a 1976 College Board survey of over 1 million high school students found that 70 percent of the students rated themselves above the median in leadership ability, 60 percent rated themselves above the median in their ability to get along well with others (cited in Dunning, Meyerowitz, & Holzberg, 1989). Although it's not possible from such data to know which of the million students were mistaken, if we accept that these students comprise a random sample of high school students, all values over 50 percent represent inaccuracy. At a minimum, then, it would seem that 20 percent of the students possess unrealistically positive beliefs about their leadership ability; 10 percent of the students entertain unrealistically positive beliefs about their athletic ability; and 35 percent of the 1 million students hold mistaken beliefs about their ability to get along with others. It is difficult to explain these rather large percentages within a normative model that assumes that accurate self-knowledge is a necessary condition of mental health.

Another way to assess the accuracy of self-views is to compare people's self-evaluations with the evaluations of neutral observers. A study by Lewinsohn, Mischel, Chaplin, and Barton (1980) adopted this approach. These investigators had nondepressed and depressed participants engage in a series of 20-minute group discussions. After each session, the participants rated their social competence on a 17-item scale (e.g., they indicated how friendly, warm, and confident they thought they were). Trained research

assistants, watching the interactions from behind one-way mirrors, made similar ratings of each participant. This allowed Lewinsohn and his colleagues to examine the correspondence between participants' self-views and the way they were regarded by neutral observers.

Figure 10.1 presents some of the results of this investigation. The data show that both groups tended to view themselves in more positive terms than they were viewed by others, and that this tendency was especially pronounced among nondepressed participants. In fact, the depressed participants tended to be fairly accurate in their judgments, generally seeing themselves as they were seen by others.

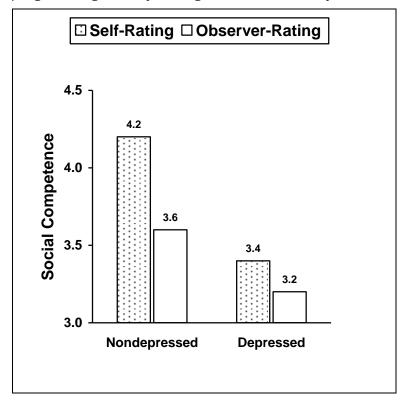


Figure 10.1. Self-ratings and observer ratings of social competence as a function of depression status. The data show that both participant groups regarded themselves more positively than they were regarded by neutral observers, and that this self-positivity bias was more apparent among nondepressed participants than among depressed participants. (Source: Lewinsohn, Mischel, Chaplin, & Barton, 1980, Journal of Abnormal Psychology, 89, 203-212)

The general pattern shown in Figure 10.1 has been replicated by others (e.g., Campbell & Fehr, 1990). When self-ratings are compared with the judgments of uninvolved, neutral observers, nondepressed people show a distinct positivity bias, whereas depressed people tend to be relatively accurate. This doesn't mean, however, that

¹ The pattern is a bit different when self-ratings are compared against the judgments of acquaintances, family members, or other people who are part of our extended self. In this case, nondepressed individuals show greater accuracy than do depressed people, because their highly positive self-evaluations are matched by the highly positive ratings of those with whom they share a close association (Campbell & Fehr, 1990).

nondepressed people wildly exaggerate their virtues or fail to acknowledge that they possess some limitations. In most cases, the degree of bias is modest, and many people are accurate in their judgments. The most appropriate conclusion to be drawn from these and other findings, then, is simply that many people tend to overestimate their positive qualities, and this is particularly true of people who feel good about themselves (Alloy & Abramson, 1988; Greenwald, 1980; Taylor & Brown, 1988, 1994). This fact argues against the claim that accurate self-knowledge is a necessary component of psychological health.

3. **Judgments of Control**

The ability to accurately judge our control over environmental events is thought to be another necessary component of mental health. In order to function effectively in the world, it is thought, we need to know when our actions produce particular outcomes and when these outcomes are determined by factors beyond our control. As before, in one sense this is obviously the case. People who believe their thoughts control the moon and stars are not models of mental health. But just because wildly distorted self-views are detrimental to well-being, does not mean that accurate perceptions of control are necessary for psychological health. In fact, the widespread prevalence of superstitious behaviors (which, by definition, involve inaccurate perceptions of control) suggests that many people exaggerate their ability to bring about desired outcomes.

Jenkins and Ward (1965) were one of the first investigators to examine this issue in an experimental setting. In the studies they conducted, participants were given a series of problems and were asked to detect the relation between their actions (e.g., pressing or not pressing a button) and an environmental outcome (e.g., whether or not a light came on). In some conditions, participants' responses exerted control over the onset of the light; in other conditions, the light appeared independent of whether participants pressed the button or not. Across these variations, there was a general tendency for participants to overestimate their control over the onset of the light. The general tendency for people to exaggerate their ability to produce desired outcomes has been dubbed the illusion of control (Langer, 1975).

The experimental situation Jenkins and Ward (1965) constructed is admittedly artificial and unfamiliar. People may be better at judging their control under more mundane and familiar conditions. Langer (1975) addressed this issue in the context of gambling events that are entirely determined by chance. Langer had participants cut cards against a competitor, with the one choosing the higher card being the winner. In one condition, the competitor was poorly dressed and nervous; in the other condition, the competitor was dapper and composed. Objectively, these variations shouldn't affect the amount of money participants wagered. But they did. Participants wagered more money when competing against the nervous competitor than when competing against the composed competitor. Related research has found that people are less willing to sell a lottery ticket they have chosen than one given to them, presumably because they believe the act of choosing the number increases their odds of winning. These findings provide further evidence that people misjudge their ability to bring about desired outcomes.

An investigation by Alloy and Abramson (1979) extended these findings to matters of psychological well-being. These investigators were interested in testing aspects of Seligman's (1975) model of learned helplessness. As reviewed in Chapter 9, Seligman

argued that depression can arise when people erroneously believe they have no control over environmental events. Building on this framework, Alloy and Abramson predicted that depressed individuals would underestimate their control over environmental outcomes.

To test their ideas, Alloy and Abramson (1979, Experiment 3) modified Jenkins and Ward's (1965) procedure. Nondepressed and dysphoric participants were given 40 trials at a task in which the onset of a green light was wholly unrelated to whether the participant pressed the button or not. In the win condition, participants received 25¢ when the light appeared; in the lose condition, participants lost 25¢ every time they failed to make the light appear. Afterward, participants rated the degree to which their actions (pressing or not pressing the button) influenced the onset of the light.

Figure 10.2 shows some of the results from this investigation. Two findings are of interest. First, all four groups of participants showed an illusion of control (i.e., they all believed they had at least some control over the onset of the light, despite the fact that they had no real control at all). Second, the illusion of control was particularly strong among nondepressed participants in the win condition, when the onset of the light was a highly desired outcome.

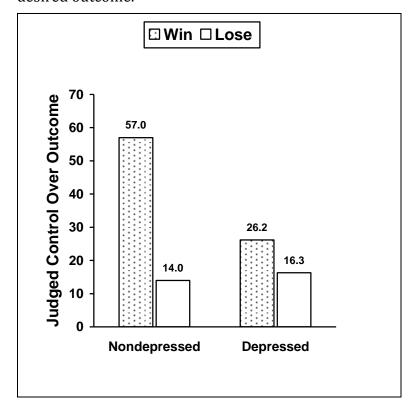


Figure 10.2. Judgments of control as a function of problem type among nondepressed and dysphoric participants. The data show that all four groups of participants overestimated their control over an objectively uncontrollable event and that this illusion of control was especially pronounced among nondepressed participants in the win condition. (Adapted from Alloy & Abramson, 1979 (Experiment 3), Journal of Experimental Psychology, 108, 441–485.)

This basic result has been replicated numerous times in subsequent research (see

Alloy & Abramson, 1988 for a review). Nondepressed individuals overestimate their ability to bring about a desired outcome; dysphoric individuals do so as well, but to a lesser degree. The fact that so many people misjudge their control is inconsistent with the claim that accurate self-knowledge is commonly found in the general population; the fact that nondepressed individuals are less accurate than dysphoric individuals is inconsistent with the claim that accurate self-knowledge is the sine qua non of psychological well-being.

4. **Optimism**

Judgments of the future provide another realm in which to test the accuracy of people's beliefs. The first thing to note here is that most people are very optimistic (Tiger, 1979). They believe they are likely to experience many positive events (e.g., live a long and happy life; have a happy and fulfilling marriage) and few, if any, negative ones (e.g., be victimized by crime; have a serious and debilitating accident). Whether this optimism is warranted is difficult to say. No one can foretell the future. Current divorce rates notwithstanding, the vast majority of couples may enjoy a happy marriage.

One way to address this issue is to have people compare their futures with other peoples' futures. If people consistently claim that their futures will be brighter than the futures of their peers, there is evidence for unrealistic optimism. After all, most people can't have happier marriages than most other people.

Research adopting this approach has found consistent evidence for unrealistic optimism (see Weinstein & Klein, 1995 for a review). Most people believe they are more likely than their peers to experience a wide variety of pleasant events, such as having a gifted child, owning their own home, or living past the age of 80 (Weinstein, 1980). Conversely, most people believe they are less likely than their peers to experience a wide variety of negative events, such as being involved in an automobile accident (Robertson, 1977), being a crime victim (Perloff & Fetzer, 1986), or becoming ill (Weinstein, 1982, 1984). Since not everyone's future can be rosier than their peers', the optimism people exhibit seems illusory.

This does not mean, however, that people's judgments of the future are unaffected by reality (Gerrard, Gibbons, & Bushman, 1996; van der Velde, van der Pligt, & Hooykaas, 1992). To illustrate, people who smoke generally acknowledge that they are at greater risk for lung disease than are people who don't smoke. At the same time, people consistently underestimate their comparative risk (e.g., people who smoke think they are less likely to get cancer than are most other smokers). It is in this sense, then, that people are overly optimistic.

Several factors influence the extent to which people are optimistic, including the perceived controllability of the event, and its severity (Weinstein, 1984). Self-relevance is another factor. Regan, Snyder, and Kassin (1995) had college students rate how likely it is that they, a very close friend, or a casual acquaintance would experience a number of positive and negative life events in the future. As shown in Table 10.1, people were very optimistic about their own future and the future of a close friend, but they were far less optimistic about the future of an acquaintance. These findings establish that the more a person is part of our extended self, the more optimistically biased we are regarding the person's future.

Table 10.1. Comparative Judgments for Experiencing Future Life Events for Self, a Close Friend, and a Casual Acquaintance

	Self	Friend	Acquaintance
Positive Events			
Have a long, happy marriage	1.44	.70	.89
Graduate in top half of class	1.19	.52	.19
Have an intellectually gifted child	1.15	.44	.07
Live past 80	1.00	.48	.43
Achievement recognized in newspaper	.74	.70	.04
Mean	1.30	.57	.32
Negative Events			
Have a drinking problem	-1.96	-1.00	-1.19
Be fired from a job	-1.93	-1.15	56
Have a heart attack by age 40	-1.30	-1.19	04
Victim of a violent crime	63	37	04
Injured in an automobile accident	52	.19	.63
Mean	-1.27	70	24
Total Optimism (Positive – Negative)			
Mean	2.57	1.27	.56

Note: Scale values could range from -4 (chance of experiencing event is extremely below average) to +4 (chance of experiencing event is extremely above average). (Source: Regan, Snyder, & Kassin, 1995, Personality and Social Psychology Bulletin, 21, 1073-1082)

The relation between optimism and psychological well-being has also been a topic of inquiry. Pyszczynski, Holt, and Greenberg (1987) had nondepressed and dysphoric students indicate how likely they and the typical undergraduate at their university were to experience a variety of positive and negative events. Figure 10.3 presents some of the results from this investigation. The figure shows that nondepressed participants believed their own future would be brighter than the average person's, but that dysphoric participants did not. Once again, then, the data indicate that nondepressed individuals are more positively biased in their self-relevant judgments than are dysphoric individuals (see also, Alloy & Ahrens, 1987).



Figure 10.3. Optimism as a function of target (self versus others) among nondepressed and dysphoric participants. The data show that only nondepressed participants were optimistically biased. (Source Pyszczynski, Holt, & Greenberg, 1987, *Journal of Personality and Social Psychology*, *52*, 994–1001)

B. **Summary**

Traditional models of mental health assert that well-adjusted individuals possess accurate perceptions of themselves, their capacity to control important events in their lives, and their future. The empirical research we have reviewed thus far challenges this claim. When it comes to self-knowledge of an evaluative nature, most people are not entirely accurate. They possess unrealistically positive views of themselves, an exaggerated belief in their ability to bring about desired outcomes, and a view of their future that is rosier than base-rate data can justify.

C. Do People Really Believe They're So Wonderful?

Before attempting to reconcile these empirical findings with traditional models of mental health, let's be certain that most people do, in fact, possess overly positive self-views. Several issues deserve attention here.

1. Sample Limitations

The vast majority of the evidence we've been discussing comes from college-student samples. According to Colvin and Block (1994), college students are warranted in believing they are better than are most other people when it comes to attributes associated with college, such as intelligence, and young people are warranted in believing they are better than are most other people when it comes to attributes associated with age, such as athleticism and attractiveness. These arguments ignore the fact that college students (1)

regard themselves as better than most other college students and (2) also believe they are better than most other people in domains that are completely unrelated to being smart or young (e.g., How kind, loyal, and generous are you?).

A related argument assumes that college students possess overly positive self-views but that adults do not. There is also little evidence to support this claim. As noted in Chapter 3, many adults also view themselves in overly positive terms. For example, 90 percent of business managers rate their performance as superior to other managers, and 86 percent rate themselves as more ethical than their peers (cited in Myers, 1993). Another study found that 94 percent of college professors believe they do above average work (Cross, 1977). Moreover, individuals facing acute health threats believe they are coping better with their condition than are other patients facing the same threat (Buunk, Collins, Taylor, vanYperen, & Dakof, 1990; Helgeson & Taylor, 1993; Taylor, Kemeny, Reed, & Aspinwall, 1991). In short, there is little reason to believe that overly positive self-views are restricted to the young or well educated.

2. **Cultural Limitations**

Another possibility is that only people from Western cultures think of themselves in overly positive terms. As noted in Chapter 3, Western cultures are very competitive and individualistic, and people are encouraged to think of themselves in ways that distinguish them from others. In contrast, many Eastern cultures and some Latin American cultures are more collectivistic. People in these cultures are urged to think of themselves in ways that emphasize their commonality with others, rather than their uniqueness or superiority. These cultural differences suggest that self-enhancement biases might characterize people from Western cultures but not people from Eastern cultures. Heine and Lehman (1995) tested this hypothesis and found that Japanese students did, in fact, show less unrealistic optimism than did Canadian students (see also, Chang, 1996; Lee & Seligman, 1997). People from Eastern cultures are also less prone to the illusion of control (Weisz, Rothbaum, & Blackburn, 1984) and are less apt to view themselves in positive terms (Brockner & Chen, 1996; Markus & Kitayama, 1991) than are people from Western cultures.

The degree to which these cultural variations limit the generalizability of the findings we've been discussing is somewhat unclear, however. Although people from Eastern cultures are less apt to exhibit self-enhancement biases than are people from Western cultures, they are not necessarily more accurate, just more modest. Moreover, it is not the case that they show no bias at all. When asked to directly compare themselves with their peers, the Japanese students in Heine and Lehman's (1995) study reported that they were less likely than their peers to experience a variety of negative events, such as becoming an alcoholic, developing skin cancer, or having a nervous breakdown. Similarly, Falbo, Poston, Triscari, and Zhang (1997) found that Chinese schoolchildren evaluated themselves more positively than they evaluated a classmate, and they evaluated themselves more positively than they were evaluated by their classmates and teachers. The larger point, then, is that even though self-enhancement biases are more pronounced in Western cultures, they are often found in Eastern cultures as well.

The nature of the extended self is another point to consider. People in Western cultures do not exaggerate their superiority over their family members and close friends

(Brown, 1986; Murray, Holmes, & Griffin, 1996a). When people from Eastern cultures fail to exhibit comparative self-enhancement biases, it may simply be because they have a more inclusive extended self. They treat their neighbors and fellow citizens as part of their extended self and, therefore, do not regard themselves as superior to them (Heine & Lehman, 1996). Outgroup biases (e.g., a tendency for Japanese citizens to regard themselves more positively than they regard Korean or Chinese citizens) may reveal strong evidence of self-enhancement in these cultures.

Finally, even if it were the case that people from Eastern cultures never exhibit self-enhancing biases, it would still be the case that people from Western cultures do. Unless we assume that people from Western cultures are less psychologically healthy than are people from Eastern cultures, we must conclude that accurate self-knowledge is not essential for psychological health.

To summarize, cultures influence the way people evaluate themselves, and people from Western cultures are particularly apt to evaluate themselves in overly positive terms. But there is scant evidence that people from Eastern cultures possess accurate self-knowledge or that people from Western cultures suffer diminished psychological health because they don't possess accurate self-knowledge.

3. Self-Evaluations Are Tainted

Another issue to consider is whether people are being truthful when they describe themselves in overly positive terms. For example, do people who claim to be smarter, more attractive, and more likable than others really believe what they say?

At least two sources of bias could contaminate these reports. First, overly positive self-evaluations could represent a form of self-presentation. According to this account, people publicly claim to possess positive qualities in an attempt to impress or deceive others, but privately, they do not believe these claims. We have already considered evidence relevant to this possibility in Chapter 7. There we noted that positive self-evaluations are not simply self-presentational ploys. People do not claim to possess many positive qualities merely to convince others that this is so. Not only are positive self-evaluations found under conditions of complete anonymity, but private self-evaluations are oftentimes more self-aggrandizing than are public ones. This occurs when people temper their public claims to appear modest rather than conceited. In general, then, although there is no doubt that people modify their self-descriptions when they present them publicly, there is little reason to believe that positive self-evaluations are offered only for public consumption (Greenwald & Breckler, 1985; Schlenker, 1986; Tesser & Moore, 1986).

Another possibility is that overly positive self-evaluations represent a form of self-deception. This account assumes that people who claim to possess many wonderful qualities are deceiving themselves. This is a harder issue to dismiss. Since its very inception, the field of psychology has had difficulty understanding the nature of self-deception. The term implies a fundamental contradiction: To be self-deceived, a person must know something and not know it at the same time. Here's how the French philosopher Jean-Paul Sartre framed the issue:

[In self-deception] the one to whom the lie is told and the one who lies are one and the same person, which means that I must know in my capacity as

deceiver the truth which is hidden from me in my capacity as the one deceived. Better yet I must know the truth very exactly in order to conceal it more carefully—and this not at two different moments, which at a pinch would allow us to reestablish the semblance of a duality—but in the unitary structure of a single project. How then can the lie subsist if the duality which conditions it is suppressed? (Sartre, 1958, p.49)

In an empirical demonstration of self-deception, Gur and Sackeim (1979) had participants listen to a number of recorded voices and indicate when the voice was their own or someone else's. During the procedure, the participant's galvanic skin response (a measure of psychophysiological reactivity) was continuously monitored. The results showed that the participant's galvanic skin response increased to the sound of their own voice, even when they failed to recognize that the voice they heard was their own. Gur and Sackeim argued that this pattern represents a form of self-deception, insofar as people who consciously failed to recognize a voice was their own unconsciously knew it was so.

Of course, self-deception involves more than a failure to recognize the sound of one's own voice; it more commonly refers to a motivated attempt to avoid confronting undesirable aspects of oneself. Gur and Sackeim (1979) conducted a follow-up study to address this issue. In this investigation, participants first succeeded or failed at an alleged test of their intellectual ability before participating in the voice-recognition task. The experimenters then noted how long it took participants to recognize their own voice. The thinking here is that participants who had just failed a test would find self-awareness aversive (Duval & Wicklund, 1972) and that this desire to avoid self-confrontation would lead them to require more time to recognize the sound of their own voice. The results supported this prediction. Participants in the failure group were slower to recognize the sound of their own voice than were participants in the success condition, but the two groups did not differ in the time it took to recognize the voices of other people. Failure participants also failed to recognize their own voice more often, and rated the sound of their own voice as less pleasant, than did those in the success condition. These findings suggest that failure fueled the need for self-deception.

D. Self-Deception and Psychological Well-Being

To this point, we have seen that self-deception can occur and may be motivated by a desire to avoid self-confrontation. We have yet to consider the relation between self-deception and psychological well-being. Researchers who have addressed this issue begin by distinguishing between two forms of self-deception. Self-deception enhancement occurs when individuals unrealistically attribute positive characteristics to themselves; self-deception denial occurs when individuals unrealistically deny possessing negative characteristics.

Paulhus (1994; Paulhus & Reid, 1991) has devised a scale to measure these two forms of self-deception. People who score high in self-deception enhancement describe themselves in terms that seem too good to be true (e.g., "I always know why I like the things I do" and "I am fully in control of my fate"). People who score high in self-deception denial disavow possessing common negative qualities or traits ("I never get jealous over the good fortunes of others" and "I have never done anything that I am ashamed of").

Scores on the two scales are only modestly correlated, indicating that the tendency

to attribute positive characteristics to oneself is somewhat independent of the tendency to deny that negative attributes characterize oneself. The two forms of self-deception also exhibit different correlations with psychological adjustment. Scores on the self-deception denial scale tend to be uncorrelated with psychological adjustment, whereas scores on the deception enhancement scale are positively related to psychological well-being (Paulhus & Reid, 1991; Roth, Snyder, & Pace, 1986).

Figure 10.4 illustrates the nature of these effects. The data come from a study I conducted at the University of Washington. In this study, participants completed the self-deception enhancement subscale of the measure Paulhus (1994) developed and a common, self-report measure of depression (Radloff, 1977). I then plotted self-deception scores as a function of depression scores.

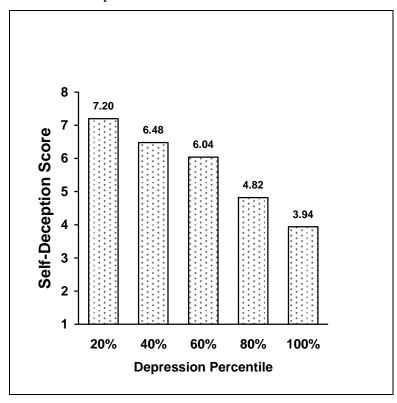


Figure 10.4. Self-deception enhancement scores as a function of depression scores. The data show that self-deception enhancement scores and depression scores are negatively correlated. This finding is consistent with the claim that self-deception enhancement is a feature of psychological well-being. (Scores could range from 1 to 20.)

The data show several interesting effects. First, note that all participant groups showed some evidence of self-deception enhancement. Note also, however, that in all cases, this deception is rather mild (i.e., all of the means are far below the highest possible score of 20). Finally, note that scores on the two scales are negatively related in a near linear fashion. The higher participants scored on the self-deception questionnaire, the lower they scored on the depression scale. This finding is consistent with the claim that self-deception enhancement is a component of psychological well-being (Paulhus & Reid, 1991; Roth & Ingram, 1985; Roth et al., 1986).

E. **Depressive Realism**

Throughout this chapter, we have seen that depressed individuals are less positively biased than are nondepressed individuals; we have also seen that they are less prone to self-deception than are nondepressed individuals. One explanation for this finding is that depression involves a breakdown in self-enhancing illusions (Bibring, 1953). From this perspective, it is not so much that depressives are negatively biased, as Beck (1967) claimed, but that they lack self-protective positive biases.

The relative lack of self-enhancement biases during depression also suggests that depressed individuals may possess accurate self-knowledge. Mischel (1979) coined the term depressive realism to refer to this possibility, although it was discussed many years earlier by Sigmund Freud (1917/1957):

[The melancholic may have] a keener eye for the truth than other people who are not melancholic. When in his heightened self-criticism he describes himself as petty, egoistic, dishonest, lacking in independence, one whose sole aim has been to hide the weaknesses of his own nature, it may be, so far as we know, that he has come pretty near to understanding himself; we only wonder why a man has to be ill before he can be accessible to a truth of this kind. (Freud, 1917/1957, p.246)

Whether depressed individuals are actually more accurate and realistic than nondepressives is difficult to say, however. First, although mildly depressed or dysphoric people view themselves in balanced or even-handed terms, severely depressed individuals view themselves in unrealistically negative terms (Ruehlman, West, & Pasahow, 1985). Moreover, even moderately depressed individuals sometimes display less accuracy than do nondepressed people (e.g., Campbell & Fehr, 1990; Dunning & Story, 1991). Finally, the accuracy depressives show may sometimes be adventitious. On average, people who describe themselves as being of average intelligence or attractiveness are apt to be more accurate than are people who describe themselves in overly positive (or overly negative) terms. By being modest, then, depressed individuals may appear to be more accurate without possessing any special insight or awareness into what they are like (Brown & Dutton, 1995a). Given this possibility, it is probably best to conclude that depressed individuals are less positively biased, but they are not necessarily more accurate than nondepressed individuals.

II. Positive Illusions and Psychological Health

So far we have seen that many psychologically healthy people do not possess accurate self-knowledge. This evidence has inspired a new view on the nature of psychological well-being. Instead of assuming that psychological health is characterized by accurate self-knowledge, several theorists have speculated that well-being is associated with overly (though not excessively) positive self-knowledge (Alloy & Abramson, 1988; Greenwald, 1980; Lazarus, 1983; Sackeim, 1983; Taylor, 1983; Taylor & Brown, 1988). Shelley Taylor and I (Taylor & Brown, 1988) referred to these beliefs as positive illusions to emphasize that these beliefs are more positive than can realistically be justified.

In essence, Taylor and I made two related arguments regarding the relation between self-knowledge and psychological health. First, we argued that most normal

people do not possess accurate self-views; they possess overly positive self-views.² This claim is important because it contradicts the notion that psychological health demands accuracy. We also argued that positive illusions are conducive to well-being. We contended that not only do most people possess positive self-views, but that it is generally good that they do, because these views promote other aspects of mental health and enable people to function more effectively in the world.

The link Taylor and Brown (1988) proposed between positive illusions and psychological well-being has attracted a great deal of attention and sparked a good deal of controversy (Colvin & Block, 1994; Taylor & Brown, 1994). Before turning to some of the evidence relevant to this thesis, let's clarify what Taylor and I did (and did not) claim. First, we did not claim that illusory self-perceptions are never destructive. It is absolutely clear that some illusions or distortions (e.g., delusions of grandeur, hallucinations, gross misperceptions of physical reality) are detrimental to mental health. The only illusions we have linked to mental health are mildly positive ones.

Nor did we claim that positive illusions are a necessary component of mental health or that people are never accurate. As noted earlier, not all healthy people show the positive biases we have documented in this chapter, and there are certainly times in life when people seek accurate self-relevant information (Gollwitzer & Kinney, 1989; Taylor & Gollwitzer, 1995). In this sense, we did not claim that psychological health demands positively biased self-views; we claimed that psychological health does not demand entirely accurate self-views.

That being said, Taylor and I did conclude that positive illusions are often beneficial. To understand this claim, we must first identify established criteria of psychological health. Although there is not total agreement on the matter, many theorists have concluded that psychological health includes the following components: (1) a subjective state of happiness or well-being; (2) the capacity to form and maintain satisfying interpersonal relationships; (3) the ability to engage in productive and meaningful work; and (4) the capacity to grow and mature by successfully coping with life's challenges (Jahoda, 1958; Jourard & Landsman, 1980; Ryff, 1989, 1995).

A. **Positive Illusions, Happiness, and Love**

Research has linked positive illusions to each of these criteria. Consider happiness. Many of the things people commonly assume bring happiness (e.g., money, beauty, youth) turn out to be largely unrelated to how happy people are (Myers & Diener, 1995). Happiness is, however, strongly related to how people think and feel about themselves. Happy people (1) hold positive views of themselves, (2) have high feelings of personal control, and (3) are generally optimistic about their future (Myers & Diener, 1995). In short, happy people exhibit the positive illusions we have documented in this chapter. The strength of this association varies somewhat across cultures, but the general pattern seems

²I am using the word normal here primarily in a statistical sense (i.e., what the average person does) and also to refer to the absence of psychopathology.

to hold for people everywhere (Diener & Diener, 1995).

Positive illusions have also been linked to satisfying interpersonal relationships. Murray, Holmes, and Griffin (1996a, 1996b) had 82 couples (many of whom were married) evaluate themselves and their partner along a number of evaluative dimensions (e.g., How kind, affectionate, accepting, and intelligent are you/is your partner?). Couples who viewed their partners in more positive terms than their partners viewed themselves were happier and more satisfied in their relationship than were couples whose appraisals of one another were more accurate. These findings suggest that idealistic, rather than realistic, perceptions of one's partner are linked to satisfying interpersonal relationships.

B. **Positive Illusions and Work**

Positive illusions have also been linked to creative and productive work. As first noted in Chapter 6, people who believe they have high ability and hold high expectations of success work harder, persist longer, and often perform better on intellectual and manual tasks than do those whose beliefs in these areas are more negative or modest (e.g., Bandura, 1989; Dweck & Leggett, 1988; Mortimer & Lorence, 1979; Schaufeli, 1988). These effects remain even after actual ability levels are taken into account. This means that a positive belief in one's ability, even if somewhat illusory, can promote achievement. Here's how one prominent theorist summarized the findings in this area:

It is widely believed that misjudgment produces dysfunction. Certainly, gross miscalculation can create problems. However, optimistic self-appraisals of capability that are not unduly disparate from what is possible can be advantageous, whereas veridical judgments can be self-limiting. When people err in their self-appraisals, they tend to overestimate their capabilities. This is a benefit rather than a cognitive failing to be eradicated. If self-efficacy beliefs always reflected only what people could do routinely, they would rarely fail but they would not mount the extra effort needed to surpass their ordinary performances. (Bandura, 1989, p.1177)

Positive illusions may be particularly prevalent and beneficial in childhood. Young children are very self-enhancing. They hold very positive beliefs about their ability to accomplish a variety of tasks (e.g., many expect to become famous scientists, rock stars, or fire fighters). These positive beliefs decline when children enter elementary school, but they are still evident (Stipek, 1984). Many adults treat these positive beliefs as amusing and ephemeral chimera of youth, but they may very well serve a more serious function. Bjorklund and Green (1992) have argued that optimistic assessments of ability facilitate children's acquisition of language and the development of problem- solving and motor skills (see also, Phillips & Zimmerman, 1990; Stipek, 1984).

Unrealistic optimism about their own abilities and . . . ignorance of their limitations [allow] children to try more diverse and complex behaviors they would not otherwise try if they had more realistic conceptions of their abilities. . . . This allows them to practice skills to a greater degree and may foster long-term . . . benefits. (Bjorklund & Green 1992, p.47)

C. **Positive Illusions, Stress, and Coping**

The ability to successfully meet life's challenges is another component of mental health. Before reading about the effects of positive illusions in this area, stop and ask

yourself what you think it would be like to suffer a debilitating personal injury or develop a life-threatening illness. For example, how would you cope if you developed cancer, had a serious heart attack, or became paralyzed in an automobile accident?

You might be surprised to know that most people cope quite well with personal tragedies of this sort. In fact, although they are initially distressed and depressed, within two years most people who experience such traumas report being at least as happy and satisfied with their lives as those who have never experienced such events (Brickman, Coates, & Janoff-Bulman, 1978; Diener, 1994; Schulz & Decker, 1985; Taylor, 1983). Some even report that their lives have changed for the better. Naturally, not everyone copes well with tragedy, and some people require counseling or other forms of treatment to help them adjust. But the majority of people who suffer serious illnesses and injuries return to a level of psychological functioning that is at least as positive as the one they enjoyed before experiencing the traumatic event.

Although the means by which people achieve recovery differ, certain commonalities emerge. In an analysis of how women cope with breast cancer, Taylor (1983) noted that readjustment often involves (1) restoring a positive sense of self-worth, (2) reasserting control over one's life, and (3) finding meaning in the experience. To this we can add (4) reclaiming an optimistic view of the future. Thus, recovery from traumatic events often involves restoring the positive illusions that were in place prior to the experience.

It is somewhat paradoxical, but illusions play a role in the restoration process itself. People regain a favorable self-image, recapture perceived control, and reclaim optimism by construing events in overly positive ways. For example, people believe that they are coping better than the average person with their illness or condition. They also believe they have more control over the course of their disease than is objectively so, and they construct a view of the future that is unrealistically optimistic given their condition. As before, these illusions are typically subtle and involve mild (rather than gross) distortions of reality. But they are unrealistic nonetheless.

The cognitions upon which meaning, mastery, and self-enhancement depend are in a large part founded on illusions. Causes for cancer are manufactured despite the fact that the true causes of cancer remain substantially unknown. Belief in control over one's cancer persists despite little evidence that such faith is well-placed. Self-enhancing social comparisons are drawn, and when no disadvantaged person exists against whom one can compare oneself, [one] is made up. . . . these illusions are beneficial in bringing about psychological adaptation. (Taylor, 1983, p.1167)

Of the three illusions we have considered, perceived control and optimism have received the most attention as coping mechanisms. In the following sections, we will examine how each of these perceptions helps people cope with stressful life events.

1. Perceived Control and Coping

Perceived control—the perception that one can bring about desired outcomes—is regarded as a fundamental human need and a central component of psychological health (deCharms, 1968; Erikson, 1963; White, 1959). Developmentally, these feelings of mastery and efficacy emerge during the earliest years of life (Erikson, 1963), and many of the negative consequences of aging have been traced to declines in feelings of control (Rodin,

1986). Finally, people react negatively to a loss of perceived control, responding with either anger and active attempts to restore control (Wortman & Brehm, 1975) or with depression and passivity (Seligman, 1975).

The benefits of perceived control are diverse (for reviews, see Cohen, 1980; Shapiro, Schwartz, & Astin, 1996; Skinner, 1996; Taylor & Clark, 1986; Thompson, 1981; Thompson & Spacapan, 1991). People who believe they have control over events in their lives feel better about themselves, cope better with adversity, and perform better on a variety of cognitive and manual tasks than do those who believe they lack control. There is also evidence that perceptions of control influence physical well-being and longevity. In one study, nursing-home patients given control over aspects of their daily functioning lived longer than those who had little control (Langer & Rodin, 1976; see also, Janoff-Bulman & Marshall, 1982).

One of the most interesting aspects of this research area is that the perception of control is at least as important as actual control itself. To illustrate, laboratory studies have exposed participants to a noxious stimulus, such as electric shock or intense noise. Participants in the high-control condition are told they can terminate the noxious stimulus whenever they want (e.g., they can press a button to terminate the shock); participants in the low-control condition are not told they can terminate the noxious stimulus. In general, participants in the high-control condition are less anxious and distressed prior to the procedure and are able to withstand more painful levels of the stimulus than are participants in the low-control condition (Averill, 1973; Glass & Singer, 1972; Thompson, 1981). This is so despite the fact that participants in the high-control condition never actually exercise their controlling option. Thus, the mere perception of control—the belief that one can do something to terminate or reduce a noxious event—reduces anxiety and increases tolerance for the experience.

In addition to helping people cope with mild, short-lived stressors, perceptions of control also help people cope with naturally occurring stressful life events (for a review, see Thompson & Spacapan, 1991). An investigation by Alloy and Clements (1992) makes this point. These researchers first had college students perform the judgment of control task developed by Alloy and Abramson (1979). The students were then asked to keep track of the number of stressful life events they experienced in the following month, and their emotional reactions to these events. Students who overestimated their control over the onset of the light (i.e., those who showed an illusion of control) became less discouraged and depressed when faced with stressful life events than did those who underestimated their control. Alloy and Clements concluded that the belief that one can control desired events (even if somewhat illusory) reduces the negative effects of life stress.

An investigation by Taylor, Lichtman, and Wood (1984) provides even more dramatic support for this claim. These investigators interviewed 78 breast cancer patients in the Los Angeles area. Among other things, the women were asked how much control they believed they had over their disease. Perceptions of control were generally high and were positively related to psychological health: Most of the women thought they had at least some control over the course of the disease, and those who did so enjoyed higher levels of psychological well-being than those who did not.

Because there is little scientific evidence that people can alter the course of their cancer, the control these women believed they had over their illness is somewhat illusory. Nevertheless, perceived control was psychologically beneficial. In fact, perceptions of control may be particularly advantageous when actual control is the most minimal. Thompson, Sobolew-Shubin, Galbraith, Schwankovsky, and Cruzen (1993) found that perceived control was most strongly related to psychological well-being among cancer patients with poor physical functioning. They concluded that perceived control is especially beneficial when objective health outcomes are the most grim.

2. **Optimism and Coping**

Like perceived control, optimism has been linked to effective coping. Scheier, Carver, and their associates (Carver et al., 1993; Scheier & Carver, 1985, 1987; Scheier et al., 1989) have conducted much of the research in this area. Table 10.2 presents a scale these investigators use to measure the extent to which people are optimistic. People who score high on this scale cope more effectively with a variety of stressors than do those who score low on this scale.

Table 10.2. The Life Orientation Test

Indicate your level of agreement with each of the following statements by circling one number on the rating scale beside each item. Use the following scale as your guide.

0 = strongly disagree

1 = disagree

2 = neutral

3 = agree

4 = strongly agree

1. In uncertain times, I usually expect the best.	0	1	2	3	4
2. If something can go wrong for me, it will.	0	1	2	3	4
3. I always look on the bright side of things.	0	1	2	3	4
4. I'm always optimistic about my future.	0	1	2	3	4
5. I hardly ever expect things to go my way.	0	1	2	3	4
6. Things never work out the way I want	0	1	2	3	4
7. I'm a believer in the idea that "every cloud	0	1	2	3	4
8. I rarely count on good things happening	0	1	2	3	4

Note: To determine your optimism score, first reverse the scoring for items 2, 5, 6, and 8 (0 = 4; 1 = 3; 2 = 2; 3 = 1; 4 = 0), then add you scores for all eight items. Higher scores indicate greater optimism. (Source: Scheier & Carver, 1985, *Health Psychology*, 4, 219–247)

A study of men undergoing coronary artery bypass surgery makes this point (Scheier et al., 1989). On the day before their surgery, the men completed a version of the questionnaire shown in Table 10.2. High scores on this scale were linked to a faster rate of physical recovery from surgery and to a faster rate of return to normal life activities in the months after surgery. These and other findings (e.g., Carver et al., 1993) suggest that an optimistic outlook plays a key role in how people cope with life-threatening events.

Scheier and Carver have also examined why optimists cope better with stress than do pessimists. Their analysis begins by noting that people deal with life stress in two ways. One way, termed problem-focused coping by Lazarus and his colleagues (Lazarus & Folkman, 1984; Lazarus & Launier, 1978), involves taking active steps to deal with the source of stress. For example, a person who is laid off from work may immediately start looking for another job. This is problem-focused coping, because the person's efforts are directed at resolving the source of stress. A second coping strategy, termed emotion-focused coping, occurs when individuals attempt to eliminate or reduce the emotional distress a stressful event brings about. Sometimes emotion-focused coping is constructive

(under stressful circumstances, a person may exercise to alleviate anxiety); other times it is destructive (a person under stress can abuse alcohol or drugs in an effort to reduce anxiety).

Which of these strategies do optimists typically use? Numerous studies have found that optimists are more inclined than pessimists to use problem-focused coping strategies (Aspinwall & Brunhart, 1996; Carver et al., 1993; Scheier et al., 1989; Scheier, Weintraub, & Carver, 1986). When faced with a stressful situation, optimists seek out relevant information and actively attempt to solve their problems, either by directly attacking the source of distress or by looking at the situation in ways that cast things in the most positive light (e.g., believing they have learned a lot from the experience and are a better person for having gone through it).

Optimism, like perceived control, appears to be beneficial even when it's illusory. Taylor, Kemeny, Aspinwall, Schneider, Rodriguez, and Herbert (1992) studied 550 gay men who had tested for the presence of the AIDS virus (HIV). About half of the men were HIV positive; the other half were HIV negative. After receiving their test results, the men were asked to indicate their agreement with a number of statements (e.g., "I feel safe from AIDS because I've developed an immunity" and "I think my immune system would be (is) more capable of fighting the AIDS virus than that of other gay men"). These items were combined to create an index of how optimistic the men were that they would not develop AIDS.

Realistically, people who are HIV positive are much more likely to develop AIDS than are people who are HIV negative. Nevertheless, men who knew they were HIV positive were significantly more optimistic about not developing AIDS than were men who knew they were HIV negative. Moreover, this optimism appeared to confer a number of benefits. Optimists reported lower levels of psychological distress and reported engaging in more health-promoting behaviors (e.g., healthy diet, exercise, getting enough sleep) than did pessimists.

To summarize, the picture that emerges from the research we have been discussing is not one of an optimistic person who blithely assumes that everything will be fine and then does nothing to bring this state of affairs about. Instead, optimists adopt constructive, problem-focused coping strategies. They set goals and then take active aims to achieve their goals. They look at their situation in the most positive terms and attempt to construe benefit from tragedy. In short, they actively strive to "make lemonade out of lemons."

They are able to do this, in part, because the three positive illusions we have considered are related to one another (Scheier, Carver, & Bridges, 1994). People who think they have many fine qualities also believe they can use these qualities to bring about desired outcomes; people who believe they can bring about desired outcomes are optimistic about their future. In this sense, positive illusions support and fortify one another.

D. **Positive Illusions and Coping with Existential Terror**

. . . to see the world as it really is is devastating and terrifying. (Becker, 1973, p.60).

In his award-winning book, *The Denial of Death*, the anthropologist Ernest Becker (1973) outlined another benefit of positive illusions. As noted in Chapter 8, Becker argued that the capacity to contemplate one's own death creates existential terror in people and that a great deal of psychological life is devoted to managing this terror (see also, Rank, 1936). The positive illusions we have discussed in this chapter are among the vehicles Becker believes serve to partially mollify terror. According to Becker, exaggerated beliefs about one's virtue, power, and value imbue life with meaning and offer the reward of immortality. Without these beliefs, the individual sinks into a state of abject terror and paralyzing anxiety, immobilized by the awareness of his ultimate demise. Indeed, for Becker, "life is possible only with illusions" (Becker, 1973, p.189).

Greenberg, Solomon, and Pyszczynski (1997) report numerous investigations inspired by Becker's ideas. In one investigation (Greenberg et al., 1992), participants were first given either positive personality feedback (e.g., your personality is fundamentally strong) or neutral personality feedback (e.g., some of your aspirations may be a bit unrealistic). Later, all participants viewed one of two videotapes. In the mortality-salient condition, the videotape depicted scenes of death and destruction, including an autopsy and electrocution of an inmate on death row. In the control condition, the videotape did not contain any death-related images or scenes. Finally, after viewing the videotapes, participants completed a measure of anxiety.

Recall Becker's (1973) claim that positive illusions serve to mitigate anxiety in response to an awareness of one's death. Based on this idea, Greenberg et al. (1992) predicted that participants who had been given positive personality feedback would experience less anxiety in response to the death-relevant videotape than would participants given neutral personality feedback. As can be seen in Figure 10.5, this proved to be the case. Participants given neutral personality feedback were very anxious after viewing death-relevant images, but participants given positive personality feedback were not. Although there are alternative explanations for this finding, one possibility is that positive self-relevant beliefs help people cope with existential terror.

III. Limitations and Potential Costs of Positive Illusions

To this point, we have considered only the benefits of positive illusions. Although these benefits are considerable, there are also some important limitations and costs to consider. Perhaps the most important point to be made is that there is little evidence that positive illusions can cure people of actual physical disease. The effects we've been discussing focus on psychological adjustment—with how people feel about their illness or injury. I have not argued that positive thinking can prevent or cure serious illnesses.

It is also the case that not everyone who deals well with stressful circumstances exhibits positive illusions. In fact, some people who cope well with stress prefer to relinquish control to others (Burger, McWard, & LaTorre, 1989; Rothbaum, Weisz, & Snyder, 1982) or are somewhat pessimistic (Norem & Cantor, 1986).

Beyond these limitations, each of the three illusions we have considered can bring serious costs when they become excessive. In the following section, we will discuss some of the most important problems that can arise.

A. **Potential Costs of Overly Positive Self-Views**

The first illusion we discussed was the tendency for people to view themselves in overly positive terms. We noted that most people show this effect and that the effect is related to psychological adjustment. But this does not mean that the more positively biased one is, the better.

1. Narcissism

People who are overly conceited or excessively self-involved may possess a narcissistic personality disorder. According to established clinical guidelines (DSM-IV), narcissists tend to be grandiose (they have an exaggerated sense of self-importance and uniqueness), are exhibitionistic (they require near constant attention and admiration from others), possess an exaggerated sense of entitlement (they expect that their wishes should automatically be met and that others should grant them special favors without reciprocity), and are interpersonally exploitative (they use others as objects of selfish gains).

Table 10.3 presents some items from a questionnaire that has been used to measure narcissistic tendencies in the general population (Raskin & Hall, 1979). A moderate degree of narcissism is considered to be a component of a healthy personality (Bibring, 1953; Kernberg, 1975; Kohut, 1971; Raskin, Novacek, & Hogan, 1991; Westen, 1990b), but excessive narcissism is not. In keeping with this idea, people with extreme scores on the narcissism scale are judged rather negatively by others (Raskin & Terry, 1988; see also, Colvin, Block, & Funder, 1995; John & Robins, 1994). These effects establish that overly positive self-views can bring social costs. People who are extremely self-aggrandizing or exceedingly self-involved are not warmly embraced by others.

Table 10.3. Sample items from the Narcissistic Personality Inventory

Instructions: In each of the following pairs of attitudes, choose the one that you MOST AGREE with. Mark your answer by choosing EITHER A or B. Only mark ONE ANSWER for each attitude pair, and please DO NOT skip any items.

	A	В		A	В
1.	I have a natural talent for influencing people.	I'm not very good at influencing people.	2.	Modesty doesn't become me.	I'm essentially a modest person.
3.	I would do almost anything on a dare.	I tend to be a fairly cautious person.	4.	When people compliment me I sometimes get embarrassed.	I know that I am good because everybody keeps telling me so.
5.	The thought of ruling the world frightens the hell out of me	If I ruled the world it would be a better place.	6.	I can usually talk my way out of anything.	I try to accept the consequences of my behavior.
7.	I prefer to blend in with the crowd	I like to be the center of attention	8.	I will be a success.	I am not too concerned about success.
9.	I am no better or no worse than most people	I think I am a special person	10.	I am not sure if I would make a good leader	I see myself as a good leader.

Note: Answer key: a, a, a, b, b, a, b, b. Score one point for each correct answer. High scores indicate higher narcissism. (Source: Raskin & Hall, 1979, *Psychological Reports*, *46*, 55–60)

2. **Interpersonal Violence**

Overly positive self-views may also beget aggression. Baumeister, Smart, and Boden (1996) reviewed a great deal of evidence on the predictors of interpersonal violence. They found that people who have highly inflated, unstable, or uncertain self-views are prone to violence when circumstances threaten these positive self-appraisals (see also, Kernis, Grannemann, & Barclay, 1989; Waschull & Kernis, 1996). For example, a man who believes he is a fantastic lover and provider may turn violent if his wife leaves him. In his subsequent work, Baumeister (1997) has even argued that much of the evil in this world is carried out by people who hold excessively positive views of themselves.

3. **Repressive Coping Style**

Overly positive self-views may also have important health-related costs. Weinberger and Schwartz (Weinberger, 1990; Weinberger, Schwartz, & Davidson, 1979) have identified people with a repressive coping style. Under stress, people with this coping style show a strong dissociation between self-reports of anxiety and physiological indicators of anxiety (i.e., they say they feel fine and relaxed but show an elevated heart rate and high skin conductance levels) (but see also, Tomaka, Blascovich, & Kelsey, 1992).

A failure to acknowledge and attend to physiological arousal may contribute to the development of physical illness, including ulcers, cancer, and heart disease (Jensen, 1987; Pennebaker, 1989, 1993; Schwartz, 1977; Shedler, Mayman, & Manis, 1993).

B. **Potential Costs of Exaggerated Perceptions of Control**

A tendency to exaggerate one's ability to bring about desired outcomes also carries some potential costs.

1. Unproductive and Prolonged Persistence

One possibility is that people who exaggerate their ability to bring about desired outcomes may display maladaptive persistence. Persistence is normally a good thing. Many important tasks in life require working long and hard to overcome obstacles. But it's also important in life to know when to quit. As the singer Kenny Rogers noted, "You got to know when to hold them, know when to fold them."

People who exaggerate their ability to control events may be prone to maladaptive persistence. They may continue to pursue goals that are beyond their reach. Currently, the evidence on this point is mixed: Some studies find that people with high self-perceptions of ability do not quit when they should (Baumeister & Tice, 1985; McFarlin, Baumeister, & Blascovich, 1984); other studies find that this is not the case (Janoff-Bulman & Brickman, 1982; McFarlin, 1985; Sandelands, Brockner, & Glynn, 1988). After reviewing this research, Aspinwall and Taylor (1997) concluded that people who possess a strong belief in their ability to bring about success are very sensitive to when persistence pays off and when it does not (see also, Sandelands et al., 1988). This research suggests that positive illusions are not a liability in this domain.

2. **Self-Regulatory Failure**

People who exaggerate their abilities may set their sights too high, "biting off more than they can chew." Baumeister, Heatherton, and Tice (1993) explored this issue. These investigators had participants perform a manual dexterity task. Afterward, participants were given the opportunity to set goals for themselves on an upcoming test, with the understanding that if they matched their goal they would win money but if they fell short of their goal they would lose money. Some participants (those in the ego-threat condition) were told that they might want to set low goals for themselves if they thought they were the kind of person who choked under pressure; other participants (those in the control condition) were not threatened in this way.

High self-esteem participants (who have strong beliefs of personal control) earned less money than did low self-esteem participants in the ego-threat condition, in part because they set their sights too high, believing they could perform better than was actually the case. Baumeister et al. (1993) concluded that positive self-views can be a liability when individuals commit themselves to goals that are beyond their reach, and that this is most likely to occur when ego-involvement is high.

C. **Potential Costs of Excessive Optimism**

Excessive optimism may also have attendant costs. Earlier, we noted that people believe they are less likely than are others to experience a wide range of negative events.

This optimism may lead people to ignore safety considerations or fail to take appropriate precautionary behaviors (Weinstein, 1988). For example, people who underestimate their risk of being injured in an automobile accident may decide not to wear seat belts.

The evidence on this point is currently mixed. Some studies find that optimism is negatively correlated with precautionary behaviors (e.g., Burger & Burns, 1988), some studies find that optimism is positively correlated with precautionary behaviors (Aspinwall & Brunhart, 1996; Whitley & Hern, 1991), and some studies find little effect either way (see Gerrard et al., 1996). One explanation for this inconsistency is that people are often overly optimistic precisely because they engage in precautionary behaviors. As an example, people who always wear their seat belts are engaging in appropriate precautionary behaviors, but they still might overestimate the degree to which wearing seat belts reduces their risk of personal injury from an automobile accident. In such cases, exaggerated perceptions of control (the belief that one's behavior can bring about a desired outcome) may underlie unrealistic optimism.

D. **Positive Illusions and Career Decisions**

A final issue to consider is whether people need to know the truth about themselves in order to maximize their outcomes in life. A classic example would be an individual who is contemplating a career as a dancer. Before deciding whether or not to pursue this profession, shouldn't this person know whether or not he truly has the talent to succeed?

This argument seems compelling, but it is not without flaws. It assumes that the sole (or at least primary) issue people face when making such decisions is probability of success. This is questionable. Individuals pursue careers in the arts for many reasons, not the least of which may be because they truly enjoy doing what they are doing. A dancer may choose this career not simply because he has plans of one day "making it big" but also because he loves to dance. One can certainly love to dance without knowing precisely how much innate dancing ability one possesses, so it is arguable whether people need to know the truth about themselves in these situations. In fact, there is reason to believe that the less concerned people are with external indicators of success, the happier and healthier they are (Kasser & Ryan, 1993).

The point here is not that people are unconcerned with whether they succeed or fail; nor am I suggesting that those who fail are not emotionally distraught. What I am suggesting is (1) that the journey is often as important to people as the final destination, and (2) that although people who fail may be temporarily distressed, they rarely regret having tried to fulfill their dreams. If anything, the opposite seems to be the case: Regret is greater among people who failed to try than among those who tried and failed (Gilovich & Medvec, 1994; Kinnier & Metha, 1989). In light of these considerations, it is unclear whether people should know just how much ability they possess in a given domain before making career choices.

But even if one assumes that future outcomes are the sole consideration (which I do not), it is an open question as to whether accurate knowledge of one's ability is needed or desirable. Ability level is only one factor that determines performance outcomes. Effort, perseverance, and the effective application of one's talents are also important. As noted earlier, high self-perceptions of ability, even if somewhat illusory, appear to promote these

factors. Consequently, a positive view of one's ability may be more facilitative of success than a purely accurate assessment.

IV. Chapter Summary

In this chapter we have examined the relation between self-knowledge and psychological well-being. We began by noting that accurate self-knowledge has traditionally been thought to be a necessary component of mental health; that is, in order to be healthy, people need to see themselves as they really are. We then reviewed evidence that challenges this claim. Many people who enjoy psychological health do not view themselves in entirely accurate terms. Instead, they view themselves in terms that are a bit more favorable than realistic. They believe they possess more positive (and fewer negative) qualities than is actually the case, they exaggerate their ability to bring about desired outcomes, and they are unduly optimistic about their future. These perceptions (which we called positive illusions) are not wildly divergent from what is true, but neither are they entirely accurate.

The next issue we considered is whether positive illusions promote psychological adjustment. We noted that positive illusions have been associated with greater happiness, more satisfying interpersonal relationships, and more productive and creative work. The benefits of positive illusions are particularly apparent when people face life-threatening illnesses or other traumatic events. People who exhibit positive illusions under such circumstances cope better than those who do not.

Finally, we looked at some potential costs of positive illusions. Although illusions seem to be beneficial when they are modest, they can be costly when they are excessive. These costs include negative interpersonal relationships, maladaptive persistence and poor self-regulation, and threats to physical well-being.

These potential risks highlight that illusions must be modest in order to be effective. A fitting analogy can be drawn between positive illusions and the new magnetic levitation vehicles currently being developed in Japan, France, and Germany. These passenger trains are capable of achieving speeds of up to 300 miles per hour by riding an electromagnetic current that raises them slightly above the rails. The trick is in keeping the train just the right distance off the ground: Rising too high causes the train to gyrate and crash; riding too close to the ground causes the train to grind to a halt.

In a similar vein, self-enhancing illusions are most effective when they are only slightly more positive than can realistically be justified (Baumeister, 1989; Brown, 1991; Taylor & Brown, 1988, 1994). Being too grandiose in one's thinking can have serious consequences, as the destructive delusions of grandeur that accompany a manic episode illustrate. But being too modest in one's self-appraisals can also be debilitating, as research on depressive realism attests. Thus, much like the new passenger trains under development, individual's self-appraisals may be most effective when they rise just slightly above the ground.

- Some theories of mental health assert that accurate self-knowledge is a necessary component of psychological well-being. Other theories hold that although wildly distorted self-views are clearly dysfunctional, people do not need to know precisely what they are really like in order to function effectively.
- Many healthy people do not possess entirely accurate self-views. Instead, they view

themselves, their ability to bring about desired outcomes, and their future in overly positive terms. These biases (or positive illusions) are not extreme, but they are commonly observed.

- Positive illusions have been linked to several criteria of psychological health, including happiness, satisfying and fulfilling interpersonal relationships, and the ability to do creative and productive work.
- Positive illusions may be particularly beneficial when people confront stressful life events. People who exaggerate their control and remain optimistic when faced with such circumstances tend to cope better than do those who fail to exhibit these illusions.
- If excessive, positive illusions can carry serious costs. These include negative interpersonal outcomes (including interpersonal violence), maladaptive persistence and poor self-regulation, and serious risks to health. These potential costs underscore that in order to be effective, positive illusions must be modest.

For Further Reading

- Alloy, L.B., & Abramson, L.Y. (1988). *Depressive realism: Four theoretical perspectives*. In L. B. Alloy (Ed.), Cognitive processes in depression (pp.223–265). New York: Guilford.
- Lockard, J.S., & Paulhus, D.L. (1988) (Eds.). *Self-deception: An adaptive mechanism?* Englewood Cliffs, NJ: Prentice Hall.
- Myers, D.G. (1993). *The pursuit of happiness*. New York: Avon Books.
- Taylor, S.E., & Brown, J.D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, *103*, 193–210.

V. References

- Alloy, L. B., & Abramson, L. Y. (1979). Judgments of contingency in depressed and nondepressed students: Sadder but wiser? *Journal of Experimental Psychology: General*, 108, 441-485.
- Alloy, L. B., & Abramson, L. Y. (1988). Depressive realism: Four theoretical perspectives. In L. B. Alloy (Ed.), *Cognitive processes in depression* (pp. 223-265). New York: Guilford.
- Alloy, L. B., & Ahrens, A. H. (1987). Depression and pessimism for the future: Biased use of statistically relevant information in predictions for self versus others. *Journal of Personality and Social Psychology*, *52*, 366-378.
- Alloy, L. B., & Clements, C. M. (1992). Illusion of control: Invulnerability to negative affect and depressive symptoms after laboratory and natural stressors. *Journal of Abnormal Psychology*, 101, 234-245.
- Allport, G. W. (1937). *Personality: A psychological interpretation*. New York: Holt, Rinehart, & Winston.
- Aspinwall, L. G., & Brunhart, S. M. (1996). Distinguishing optimism from denial: Optimistic beliefs predict attention to health threats. *Personality and Social Psychology Bulletin,* 22, 993-1003.
- Aspinwall, L. G., & Taylor, S. E. (in press). A stitch in time: Self-regulation and proactive coping. *Psychological Bulletin*.
- Averill, J. R. (1973). Personal control over aversive stimuli and its relationship to stress. *Psychological Bulletin, 80,* 286-303.
- Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, 44, 1175-1184.
- Baumeister, R. F. (1989). The optimal margin of illusion. *Journal of Social and Clinical Psychology*, 8, 176-189
- Baumeister, R. F. (in press). *Evil: Inside human violence and cruelty*. New York: W.H. Freeman.
- Baumeister, R. F., Heatherton, T. F., & Tice, D. M. (1993). When ego threats lead to self-regulation failure: Negative consequences of high self-esteem. *Journal of Personality and Social Psychology*, 64, 141-156.
- Baumeister, R. F., Smart, L. & Boden, J. M. (1996). Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. *Psychological Review,* 103, 5-33.
- Baumeister, R. F., & Tice, D. M. (1985). Self-esteem and responses to success and failure: Subsequent performance and intrinsic motivation. *Journal of Personality*, *53*, 450-467.
- Beck, A. T. (1967). *Depression: Clinical, experimental, and theoretical aspects*. New York: Harper & Row.

- Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. New York: International Universities Press.
- Becker, E. (1973). *The denial of death*. New York: The Free Press.
- Bibring, E. (1953). The mechanism of depression. In P. Greenacre (Ed.), *Affective disorders: Psychoanalytic contributions to their study* (pp. 13-48). New York: International Universities Press.
- Bjorklund, D. F., & Green, B. L. (1992). The adaptive nature of cognitive immaturity. *American Psychologist*, *47*, 46-54.
- Brickman, P. Coates, D., & Janoff-Bulman, R. J. (1978). Lottery winners and accident victims: Is happiness relative? *Journal of Personality and Social Psychology, 36*, 916-927.
- Brockner, J., & Chen, Y-R. (1996). The moderating role of self-esteem and self-construal in reaction to a threat to the self: Evidence from the People's Republic of China and the United States. *Journal of Personality and Social Psychology*, 71, 603-615.
- Brown, J. D. (1986). Evaluations of self and others: Self-enhancement biases in social judgments. *Social Cognition*, *4*, 353-376.
- Brown, J. D. (1991). Accuracy and bias in self-knowledge. In C. R. Snyder & D. F. Forsyth (Eds.), *Handbook of social and clinical psychology: The health perspective* (pp. 158-178). New York: Pergamon Press.
- Brown, J. D., & Dutton, K. A. (1995a). Truth and consequences: The costs and benefits of accurate self-knowledge. *Personality and Social Psychology Bulletin*, *21*, 1288-1296.
- Burger, J. M., & Burns, L. (1988). The illusion of unique invulnerability and the use of effective contraception. *Personality and Social Psychology Bulletin, 14,* 264-270.
- Burger, J. M., McWard, J., & LaTorre, D. (1989). Boundaries of self-control: Relinquishing control over aversive events. *Journal of Social and Clinical Psychology*, *8*, 209-221.
- Buunk, B. P., Collins, R. L., Taylor, S. E., VanYperen, N. W., & Dakof, G. A. (1990). The affective consequences of social comparison: Either ways has its ups and down. *Journal of Personality and Social Psychology*, *59*, 1238-1249.
- Campbell, J. D., & Fehr, B. (1990). Self-esteem and perceptions of conveyed impressions: Is negative affectivity associated with greater realism? *Journal of Personality and Social Psychology*, *58*, 122-133.
- Carver, C. S., Pozo, C., Harris, S. D., Noriega, V., Scheier, M. F., Robinson, D. S., Ketcham, A. S., Moffat, F. L., Jr., & Clark, K. C. (1993). How coping mediates the effects of optimism on distress: A study of women with early stage breast cancer. *Journal of Personality and Social Psychology*, 65, 375-390.
- Chang, E. C. (1996). Cultural differences in optimism, pessimism, and coping: Predictors of subsequent adjustment in Asian American and Caucasian American college students. *Journal of Counseling Psychology, 43*, 113-123.
- Cohen, S. (1980). Aftereffects of stress on human performance and social behavior: A

- review of research and theory. *Psychological Bulletin*, 88, 82-108.
- Colvin, C. R., & Block, J. (1994). Do positive illusions foster mental health? An examination of the Taylor and Brown formulation. *Psychological Bulletin*, *116*, 3-20.
- Colvin, C. R., Block, J., & Funder, D. C. (1995). Overly positive self-evaluations and personality: Negative implications for mental health. *Journal of Personality and Social Psychology*, *68*, 1152-1162.
- Cross, P. (1977). Not can but will college teaching be improved. *New Directions for Higher Education, 17*, 1-15.
- deCharms, R. (1968). *Personal causation: The internal-affective determinants of behavior*. New York: Academic Press.
- 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 & Social Psychology*, 68, 653-663.
- Dunning, D., Meyerowitz, J. A., & Holzberg, A. D. (1989). Ambiguity and self-evaluation: The role of idiosyncratic trait definitions in self-serving assessments of ability. *Journal of Personality and Social Psychology*, *57*, 1082-1090.
- Dunning, D., & Story, A. L. (1991). Depression, realism, and the overconfidence effect: Are the sadder wiser when predicting future actions and events? *Journal of Personality and Social Psychology*, *61*, 521-532.
- Duval, S. & Wicklund, R. A. (1972). *A theory of objective self-awareness*. New York: Academic Press.
- Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, *95*, 256-273.
- Erikson, E. H. (1963). *Childhood and society* (2nd ed.). New York: W. W. Norton.
- Falbo, T. Poston, D. L., Jr., Triscari, R. S., & Zhang, X. (in press). Positive evaluations of the self and others among Chinese schoolchildren. *Journal of Cross Cultural Psychology*.
- Folkman, S. (1984). Personal control and stress and coping processes: A theoretical analysis. *Journal of Personality and Social Psychology, 46,* 839-852.
- Fromm, E. (1955). The sane society. Rinehart.
- Freud, S. (1957). Mourning and melancholia. In J. Strachey (Ed. and Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 14, pp. 243-258). London: Hogarth Press. (Original work published 1917.)
- Gerrard, M., Gibbons, F. X., & Bushman, B. J. (1996). Relation between perceived vulnerability to HIV and precautionary sexual behavior. *Psychological Bulletin, 119,* 390-409.
- Gilovich, T. & Medvec, V. H. (1994). The temporal pattern to the experience of regret. *Journal of Personality and Social Psychology, 67,* 357-365.

- Glass, D. C., & Singer, J. E. (1972). *Urban stress*. New York: Academic Press.
- Gollwitzer, P. M., & Kinney, R. F. (1989). Effects of deliberative and implemental mind-sets on illusion of control. *Journal of Personality and Social Psychology*, *56*, 531-542.
- Greenberg, J., Solomon, S., & Pyszczynski, T. (1997). Terror management theory of self-esteem and social behavior: Empirical assessments and cultural refinements. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 29, pp. 61-139). New York: Academic Press.
- Greenberg, J., Solomon, S., Pyszczynski, T., Rosenblatt, A., Burling, J., Lyon, D., Simon, L., & Pinel, E. (1992). Why do people need self-esteem? Converging evidence that self-esteem serves an anxiety-buffering function. *Journal of Personality and Social Psychology*, 63, 913-922.
- Greenwald, A. G. (1980). The totalitarian ego: Fabrication and revision of personal history. *American Psychologist*, *35*, 603-618.
- Greenwald, A. G., & Breckler, S. J. (1985). To whom is the self presented? In B. R. Schlenker (Eds.), *The self and social life* (pp. 126-145). New York: McGraw-Hill.
- Gur, R. C, & Sackeim, H. A. (1979). Self-deception: A concept in search of a phenomenon. *Journal of Personality and Social Psychology, 37,* 147-169.
- Haan, N. (1977). *Coping and defending: Processes of self-environment organization*. New York: Academic Press.
- Heine, S. J., & Lehman, D. R. (1995). Cultural variation in unrealistic optimism: Does the West feel more invulnerable than the East? *Journal of Personality and Social Psychology*, 68, 595-607.
- Heine, S. J., & Lehman, D. R. (1996). *Culture and group-serving biases*. Manuscript submitted for publication.
- Helgeson, V. S., & Taylor, S. E. (1993). Social comparisons and adjustment among cardiac patients. *Journal of Applied Social Psychology*, 23, 1171-1195.
- Jahoda, M. (1958). Current concepts of positive mental health. New York: Basic Books.
- Janoff-Bulman, R., & Brickman, P. (1982). Expectations and what people learn from failure. In N. T. Feather (Ed.), *Expectations and action: Expectancy-value models in psychology* (pp. 207-272). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Janoff-Bulman, R., & Marshall, G. (1982). Mortality, well-being, and control: A study of a population of institutionalized aged. *Personality and Social Psychology Bulletin, 8*, 691-698.
- Jenkins, H. M., & Ward, W. C. (1965). Judgment of contingency between response and outcome. *Psychological Monographs*, 79 (1, Whole No. 594).
- Jensen, M. R. (1987). Psychobiological factors predicting the course of breast cancer. *Journal of Personality*, *55*, 317-342.
- Jourard, S. M., & Landsman, T. (1980). *Healthy personality: An approach from the viewpoint of humanistic psychology* (4th ed.). New York: Macmillan.

- 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.
- Kernberg, O. (1975). *Borderline conditions and pathological narcissism*. New York: Jason Alexander.
- Kernis, M. H., Grannemann, B. D., & Barclay, L. C. (1989). Stability and level of self-esteem as predictors of anger arousal and hostility. *Journal of Personality and Social Psychology*, 56, 1013-1022.
- Kohut, H. K. (1971). The analysis of the self. Madison, WI: International University Press.
- Langer, E. J. (1975). The illusion of control. *Journal of Personality and Social Psychology,* 32, 311-328.
- Langer, E., & Rodin, J. (1976). The effects of choice and enhanced personal responsibility for the aged: A field experiment in an institutional setting. *Journal of Personality and Social Psychology*, *34*, 191-198.
- Lazarus, R. S. (1983). The costs and benefits of denial. In S. Breznitz (Ed), *Denial of stress* (pp. 1-30). New York: International Universities Press.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, adaptation, and coping*. New York: Springer.
- Lazarus, R. S., & Launier, R. (1978). Stress-related transactions between person and environment. In L. A. Pervin & M. Lewis (Eds.), *Perspectives in interactional psychology* (pp. 287-327). New York: Plenum.
- Lee, Y-T., & Seligman, M. E. P. (1997). Are Americans more optimistic than the Chinese? *Personality and Social Psychology Bulletin, 23,* 32-40.
- Lefcourt, H. M. (1973). The function of the illusions of control and freedom. *American Psychologist*, 28, 417-425.
- Lewinsohn, P. M., Mischel, W., Chaplin, W., & Barton, R. (1980). Social competence and depression: The role of illusory self-perceptions. *Journal of Abnormal Psychology*, 89, 203-212.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, *98*, 224-253.
- Maslow, A. H. (1950). Self-actualizing people: A study of psychological health. *Personality*, Symposium No. 1, 11-34.
- McFarlin, D. B. (1985). Persistence in the face of failure: The impact of self-esteem and contingency information. *Personality and Social Psychology Bulletin*, 11, 153-163.
- McFarlin, D. B., Baumeister, R. F., & Blascovich, J. (1984). On knowing when to quit: Task failure, self-esteem, advice, and nonproductive assistance. *Journal of Personality*, *52*, 138-155.
- Menninger, K. A. (1963). The vital balance. New York: Viking.
- Mischel, W. (1979. On the interface of cognition and personality: Beyond the person-

- situation debate. *American Psychologist*, 34, 740-754.
- Mortimer, J. L., & Lorence, J. (1979). Occupational experience and the self-concept: A longitudinal study. *Social Psychology Quarterly*, *42*, 307-323.
- Murray, S. L., Holmes, J. G., & Griffin, D. W. (1996a). The benefits of positive illusions: Idealization and the construction of satisfaction in close relationships. *Journal of Personality and Social Psychology*, 70, 79-98.
- Murray, S. L., Holmes, J. G., & Griffin, D. W. (1996b). The self-fulfilling nature of positive illusions in romantic relationships: Love is not blind but prescient. *Journal of Personality and Social Psychology, 71,* 1155-1180.
- Myers, D. G. (1993). Social psychology (4th ed.). New York: McGraw-Hill.
- Myers, D. G. & Diener, E. (1995). Who is happy? *Psychological Science*, 6, 10-19.
- Norem, J. K., & Cantor, N. (1986). Anticipatory and post hoc cushioning strategies: Optimism and defensive pessimism in "risky" situations. *Cognitive Therapy and Research*, 10, 347-362.
- Paulhus, D. L. (1984). Two-component model of socially desirable responding. *Journal of Personality and Social Psychology, 46,* 598-609.
- Paulhus, D. L. (1994). Reference manual for The Balanced Inventory of Desirable Responding—Version 6. Unpublished manuscript.
- Paulhus, D. L., & Reid, D. B. (1991). Enhancement and denial in socially desirable responding. *Journal of Personality and Social Psychology*, 60, 307-317.
- Pennebaker, J.W. (1989). Confession, inhibition, and disease. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol 22, pp. 211-244). NY: Academic Press.
- Pennebaker, J.W. (1993). Putting stress into words: Health, linguistic, and therapeutic implications. *Behaviour Research and Therapy*, *31*, 539-548.
- Perloff, L. S., & Fetzer, B. K. (1986). Self-other judgments and perceived vulnerability of victimization. *Journal of Personality and Social Psychology*, *50*, 502-510.
- Phillips, D. A., & Zimmerman, M. (1990). The developmental course of perceived competence and incompetence among competent children. In R. J. Sternberg & J. Kolligan (Eds.), *Competence considered* (pp. 41-67). New Haven, CT: Yale University Press.
- Pyszczynski, T., Holt, K., & Greenberg, J. (1987). Depression, self-focused attention, and expectancies for positive and negative future life events for self and others. *Journal of Personality and Social Psychology*, *52*, 994-1001.
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. Applied Psychological Measurement 1, 385-401.
- Raskin, R., & Hall, C. S. (1979). A narcissistic personality inventory. *Psychological Reports*, *46*, 55-60.

- Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, *54*, 890-902.
- Raskin, R., Novacek, J., & Hogan, R. (1991). Narcissism, self-esteem, and defensive self-enhancement. *Journal of Personality*, *59*, 19-37.
- Rank, O. (1936). Will therapy and truth and reality. New York: Knopf.
- Regan, P. C., Snyder, M., & Kassin, S. M. (1995). Unrealistic optimism: Self-enhancement or person positivity. *Personality and Social Psychology Bulletin, 21*, 1073-1082.
- Rodin, J. (1986). Aging and health: Effects of the sense of control. Science, 233, 1271-1276.
- Rogers, C. R. (1951). *Client-centered therapy*. Boston: Houghton Mifflin.
- Robertson, L. S. (1977). Car crashes: Perceived vulnerability and willingness to pay for crash protection. *Journal of Community Health*, *3*, 136-141.
- Roth, D. L., & Ingram, R. E. (1985). Factors in the Self-Deception Questionnaire: Associations with depression. *Journal of Personality and Social Psychology*, 48, 243-251.
- Roth, D. L., Snyder, C. R. & Pace, L. M. (1986). Dimensions of favorable self-presentation. *Journal of Personality and Social Psychology*, *51*, 867-874.
- Rothbaum, F., Weisz, J. R., Snyder, S. S. (1982). Changing the world and changing the self: A two-process model of perceived control. *Journal of Personality and Social Psychology*, 42, 5-37.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology, 57,* 1069-1081.
- Ryff, C. D. (1995). Psychological well-being in adult life. *Current Directions in Psychological Science*, *4*, 99-104.
- Sackeim, H. A. (1983). Self-deception, self-esteem, and depression: The adaptive value of lying to oneself. In J. Masling (Ed.), *Empirical studies of psychoanalytical theories* (Vol. 1, pp. 101-157). Hillsdale, NJ: Analytic Press.
- Sackeim, H. A., & Gur, R. C. (1979). Self-deception, other-deception, and self-reported psychopathology. *Journal of Consulting and Clinical Psychology*, *47*, 213-215.
- Sandelands, L. E., Brockner, J., & Glynn, M. A. (1988). If at first you don't succeed, try, try again: Effects of persistence-performance contingencies, ego-involvement, and self-esteem in task persistence. *Journal of Applied Psychology*, 73, 208-216.
- Sartre, J-P. (1958). *Being and nothingness: A phenomenological essay on phenomenological ontology.* (H. Barnes, Trans.) London: Methuen.
- Schaufeli, W. B. (1988). Perceiving the causes of unemployment: An evaluation of the causal dimension scale in a real-life situation. *Journal of Personality and Social Psychology*, *54*, 347-356.

- 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. (1987). Dispositional optimism and physical well-being: The influence of generalized outcome expectancies on health. *Journal of Personality*, *55*, 169-210.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the life orientation test. *Journal of Personality and Social Psychology, 67,* 1063-1078.
- Scheier, M. F., Matthews, K. A., Owens, J. F., Magovern, G. J., Sr., Lefebvre, R. C., Abbott, R. A., & Carver, C. S. (1989). Dispositional optimism and recovery from coronary artery bypass surgery: The beneficial effects on physical and psychological well-being. *Journal of Personality*, *57*, 1024-1040.
- Scheier, M. F., Weintraub, J. K., & Carver, C. S. (1986). Coping with stress: Divergent strategies of optimists and pessimists. *Journal of Personality and Social Psychology*, 51, 1257-1264.
- Schlenker, B. R. (1986). Self-identification: Toward an integration of the private and public self. In R. F. Baumeister (Ed.), *Public self and private life* (pp. 21-62). New York: Springer-Verlag.
- Schulz, R., & Decker, S. (1985). Long-term adjustment to physical disability: The role of social support, perceived control, and self-blame. *Journal of Personality and Social Psychology*, 48, 1162-1172.
- Schwartz, G. E. (1977). Psychosomatic disorders and biofeedback: A psychobiological model of disregulation. In J. A. Maser & M. E. P. Seligman (Eds.), *Psychopathology: Experimental models* (pp. 271-307). San Francisco: W. H. Freeman.
- Seligman, M. E. P. (1975). *Helplessness: On depression, development, and death*. San Francisco: W. H. Freeman & Co.
- Shapiro, D. H., Schwartz, C. E., & Astin, J. A. (1996). Controlling ourselves, controlling our world: Psychology's role in understanding positive and negative consequences of seeking and gaining control. *American Psychologist*, *51*, 1213-1230.
- Shedler, J., Mayman, M., & Manis, M. (1993). The *illusion* of mental health. *American Psychologist*, 48, 1117-1131.
- Skinner, E. A. (1996). A guide to constructs of control. *Journal of Personality and Social Psychology*, 71, 549-570.
- Stipek, D. (1984). Young children's performance expectations: Logical analysis or wishful thinking? In J. G. Nicholls (Ed.), *Advances in motivation and achievement: Vol. 3. The development of achievement motivation* (pp. 33-56). Greenwich, CT: JAI Press.
- Taylor, S. E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. *American Psychologist*, *38*, 1161-1173
- Taylor, S. E. (1989). *Positive illusions: Creative self-deception and the healthy mind*. New York: Basic Books.

- 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., & Brown, J. D. (1994a). Positive illusions and well-being revisited: Separating fact from fiction. *Psychological Bulletin, 116,* 21-27.
- Taylor, S. E., & Gollwitzer, P. M. (195). Effects of mindset on positive illusions. *Journal of Personality and Social Psychology*, 69, 213-226.
- Taylor, S. E., Kemeny, M. E., Aspinwall, L. G., Schneider, S. G., Rodriguez, R., & Herbert, M. (1992). Optimism, coping, psychological distress, and high-risk sexual behavior among men at risk for AIDS. *Journal of Personality and Social Psychology, 63,* 460-473.
- Taylor, S. E., Kemeny, M. E., Reed, G. M., & Aspinwall, L. G. (1991). Assault on the self: Positive illusions and adjustment to threatening events. In G. A. Goethals & J. A. Strauss (Eds.), *The self: An interdisciplinary perspective* (pp. 239-254). New York: Springer-Verlag.
- Taylor, S. E., & Clark, L. F. (1986). Does information improve adjustment to noxious medical procedures? In M. J. Saks & L. Saxe (Eds.), *Advances in applied social psychology* (Vol. 3, pp. 1-28). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Taylor, S. E., Lichtman, R. R., & Wood, J. V. (1984). Attributions, beliefs about control, and adjustment to breast cancer. *Journal of Personality and Social Psychology*, 46, 489-502.
- Tennen, H., & Affleck, G. (1987). The costs and benefits of optimistic explanations and dispositional optimism. *Journal of Personality*, *55*, 378-393.
- Tesser, A., & Moore, J. (1986). On the convergence of public and private aspects of self. In R. F. Baumeister (Ed.), *Public self and private life* (pp. 99-116). New York: Springer-Verlag.
- Thompson, S. C. (1981). Will it hurt less if I can control it? A complex answer to a simple question. *Psychological Bulletin*, *90*, 89-101.
- Thompson, S. C., Sobolew-Shubin, A., Galbraith, M. E., Schwankovsky, L., & Cruzen, D. (1993). Maintaining perceptions of control: Finding perceived control in low-control circumstances. *Journal of Personality and Social Psychology*, *64*, 293-304.
- Thompson, S. C., & Spacapan, S. (1991). Perceptions of control in vulnerable populations. *Journal of Social Issues*, *47*, 1-21.
- Tiger, L. (1979). *Optimism: The biology of hope*. New York: Simon & Schuster.
- Tomaka, J., Blascovich, J., & Kelsey, R. M. (1992). Effects of self-deception, social desirability, and repressive coping on psychophysiological reactivity to stress. *Personality and Social Psychology Bulletin, 18,* 616-624.
- van der Velde, F. W., van der Pligt, J., & Hooykaas, C. (1994). Perceiving AIDS-related risk: Accuracy as a function of differences in actual risk. *Health Psychology*, *13*, 25-33.
- Waschull, S. B., & Kernis, M. H. (1996). Level and stability of self-esteem as predictors of

- children's intrinsic motivation and reasons for anger. *Personality and Social Psychology Bulletin, 22,* 4-13.
- Weinberger, D. A. (1990). The construct validity of the repressive coping style. In J. L. Singer (Ed.), *Repression and dissociation* (pp. 337-386). Chicago: University of Chicago Press.
- Weinberger, D. A., Schwartz, G. E., & Davidson, R. J. (1979). Low anxious, high-anxious, and repressive coping styles: Psychometric patterns and behavioral and physiological responses to stress. *Journal of Abnormal Psychology*, 88, 369-380..
- Weinstein, N. D. (1980). Unrealistic optimism about future life events. *Journal of Personality and Social Psychology*, *39*, 806-820
- Weinstein, N. D. (1982). Unrealistic optimism about susceptibility to health problems. *Journal of Behavioral Medicine*, *5*, 441-460.
- Weinstein, N. D. (1984). Why it won't happen to me: Perceptions of risk factors and susceptibility. *Health Psychology*, *3*, 431-457.
- Weinstein, N. D., & Klein, W. M. (1995). Resistance of personal risk perceptions to debiasing interventions. *Health Psychology*, *14*, 132-140.
- Weisz, J. R., Rothbaum, F. M., & Blackburn, T. C. (1984). Standing out and standing in: The psychology of control in American and Japan. *American Psychologist*, *39*, 955-969.
- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review*, 66, 297-335.
- Whitley, B. E., & Hern, A. L. (1991). Perceptions of vulnerability to pregnancy and the use of effective contraception. *Personality and Social Psychology Bulletin*, 17, 104-110.
- Wortman, C. B., & Brehm, J. C. (1975). Responses to uncontrollable outcomes: An integration of reactance theory and the learned helplessness model. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 8, pp. 278-336). San Diego, CA: Academic Press.