Research has variously portrayed self-enhancement as an indicator of narcissistic defensiveness or as a concomitant of mental health. To address this controversy, the present study used multiple measures of self-enhancement along with multiple measures and judges of mental health, comprehensively assessing their relationship. The results indicated that self-enhancement is positively associated with multiple indicators of mental health and with a more favorable impact on others. Discussion centers on a reconciliation of discrepant portraits of the self-enhancer.

The prevalence, benefits, and limitations of self-enhancement have been dominant research topics in personality and social psychology research for the past 2 decades. The empirical literature has painted two quite different portraits of the self-enhancer, however.

Taylor and Brown (1988) proposed a theory of positive illusions in which self-enhancement figures prominently. Reviewing a large social–psychological literature, they documented people’s disproportionate interest in and recall of positive over negative self-relevant information, attributional tendencies to take credit for good outcomes (e.g., Miller & Ross, 1975), tendency to see themselves more positively than others see them (e.g., Lewinsohn, Mischel, Chaplin, & Barton, 1980), and perception of self as better than peers on positive qualities and not as likely as peers to possess negative personal qualities (e.g., Alicke, 1985; Brown, 1986), among other evidence suggestive of a robust and general self-enhancement tendency (see Greenwald, 1980; Steele, 1988; Tesser, 1988, for related research). On the basis that everyone cannot be better than everyone else, Taylor and Brown referred to this finding as evidence of positive illusions.

An alternative viewpoint, however, has maintained that, rather than being associated with good adjustment, self-enhancing cognition, work, the ability to form and sustain relationships, the ability to set goals and make progress toward them, the ability to be happy or contented, and the ability to grow and achieve within the context of an ever-changing and sometimes threatening environment. Taylor and associates amassed evidence, both from experimental investigations (e.g., Taylor & Gollwitzer, 1995; see Armor & Taylor, 1998; Taylor & Brown, 1994, for reviews) and from naturalistic studies of people confronting life-threatening stressors (Taylor, 1989; Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000), that those who showed evidence of positive illusions were somewhat better adjusted on measures reflecting the criteria detailed above. Other researchers have confirmed many of these observations (e.g., Bonanno, Field, Kovacevic, & Kaltman, 2002; see Updegraff & Taylor, 2000, for a review).

An alternative viewpoint, however, has maintained that, rather than being associated with good adjustment, self-enhancing cog-
nitions may be associated with poor mental health (e.g., John & Robins, 1994; Paulhus, 1998; Shedler, Mayman, & Manis, 1993). For example, Colvin, Block, and Funder (1995) conducted three studies, two of them longitudinal, in which self-categorization of personality statements was compared with the responses of either trained examiners or friends; those who self-enhanced relative to these criteria were perceived to be psychologically maladjusted by independent coders. John and Robins (1994) had participants rate their performance in a managerial group discussion and compared those ratings with performance evaluations of these same participants made by other group members and by staff members; those who self-enhanced according to these criteria scored higher on measures of narcissism (see also Asendorpf & Ostendorf, 1998; Paulhus, 1998). Robins and Beer (2001) found that self-enhancement of one’s own performance, either in a group setting or in terms of academic ability, was associated with short-term affective benefits but long-term declines in self-esteem and task disengagement, as disconfirmation of inflated self-assessments became evident.

These contrasting representations of self-enhancement are revealed not only in the different theorists’ research findings but also in their views of human behavior. The positive illusions position maintains that self-enhancement is characteristic of most people and ebbs and flows as a function of situational constraints (Taylor & Gollwitzer, 1995). Positive illusions are most evident in the abstract when they hold the power to inspire and motivate but are less in evidence when they can be directly disconfirmed by the feedback of specific situations (Armor & Taylor, 1998). The alternative position represents self-enhancement as indicative of an enduring personality profile marked by narcissism, self-deception, and neuroticism. The goal of the present investigation is to attempt to reconcile these different theoretical perspectives.

Assessment of Self-Enhancement

Different investigators have assessed self-enhancement in ways that are not directly comparable to each other, so debate has therefore centered around how self-enhancement should be measured. Positive illusions studies assess self-enhancement using ratings of global qualities of the self in comparison with others (e.g., Taylor & Gollwitzer, 1995) and have found that most people see themselves as somewhat better than others on positive attributes and less negatively than others on undesirable attributes.

Although such self-enhancement measures have high face validity, they are vulnerable to two criticisms. The first criticism is that inflated self-ratings may reflect a positive response bias that influences not only self-assessment but self-report measures on mental health scales as well (Colvin et al., 1995; Shedler et al., 1993); any shared response bias and shared method variance could inflate the relation between self-enhancement and mental health. The second criticism is that such comparative self-enhancement measures do not identify exactly which people among the majority who see themselves as better than others have accurate self-perceptions. That is, some of the people who say that they have more positive and fewer negative qualities than others are probably correct.

In an effort to solve these problems, several studies have used other people’s perceptions of a target as a validity criterion. For example, some have used expert clinician judges (e.g., Colvin et al., 1995; Shedler et al., 1993), others have used peers (e.g., Paulhus, 1998; Shedler et al., 1993), and others have used friends’ ratings (e.g., Colvin et al., 1995). But just as self-ratings are subject to criticisms, concerns may be raised about others’ perceptions as well. One issue concerns how accurate others’ perceptions may be. With the exception of traits that have observable behavioral referents, such as extraversion, accuracy is often modest, even when the judges are trained clinicians (Albright, Kenny, & Malloy, 1988; Park & Kraus, 1992). This modest accuracy may be due, in part, to biases in person perception processes, including a harshness bias among uninvolved observers (Coyne & Gotlib, 1983), favorable distortions by close intimates (e.g., Murray & Holmes, 1997; Taylor & Koivumaki, 1976), and either harsh or positive assessments by friends, depending on the self-relevance of the rated attribute (Tesser, 1988). A bias among clinicians in favor of overidentifying pathology has also been documented (Langer & Abelson, 1974).

A second concern with using a judge criterion to establish self-enhancement is the assumption that self-enhancement is necessarily manifested in ways that are detectable by others. Private self-enhancing beliefs need not necessarily affect the ways that people present themselves to others in specific situations (cf. Baumeister, 1986). From this vantage point, the use of measures that assess self-enhancement both in terms of private self-perceptions and in terms of external criteria of judges and/or clinicians may be better able to resolve discrepancies concerning the attributes of self-enhancers.

To date, strong tests of the opposing predictions generated by the positive illusions perspective and the defensive narcissism perspective have been precluded by an absence of studies that use the different measures and methods of these different perspectives with the same participants. Accordingly, the present study includes multiple assessments of self-enhancement and relates them to multiple assessments of mental health.

Social Impact of Self-Enhancement

A second issue, related to the first, concerns the impact of self-enhancement on others. Taylor and Brown (1988) maintained that positive self-perceptions (including overly positive ones) foster the ability to care for and about others, in part because positive, optimistic people are better liked by others. Several articles have subsequently suggested that self-enhancers may instead put other people off with self-enhancing behavior, because they lack empathy, they are too self-absorbed, or they do not show distress when they are adjusting to what seem to be highly stressful events (e.g., Bonanno et al., 2002; Paulhus, 1998). Others have suggested that people with positive illusions may initially be attractive to others but that regard from others may decline over time (e.g., Colvin et al., 1995; John & Robins, 1994; Paulhus, 1998). For example, Paulhus (1998) assessed self-enhancement using measures of narcissism and self-deception and found that, whereas high self-enhancers were liked initially by others with whom they participated in group discussions, over time, they were perceived negatively by group members. As potential friends pick up on the self-enhancer’s narcissism, insensitivity to social feedback, or excessive self-promotion, liking may decrease (Colvin et al., 1995). To address this issue, the present study explores the social impact of self-enhancement (assessed in multiple ways) on peer judge evaluations and on friends’ evaluations.

Studies of positive illusions have typically reported that between 67% and 96% of people reporting on their personal qualities see themselves as better than their peers (Taylor & Armor, 1996).
Although most studies using the individual-differences approach have not reported the absolute numbers of participants, their studies have identified as deceptively self-enhancing, their discussion of self-enhancement suggests that a smaller number may be more characterized (Paulhus, 1998). Therefore, a second possible reconciliation of the two portraits of the self-enhancer is that the relation of self-enhancement to positive functioning is curvilinear (i.e., there is an optimal margin of illusion; Baumeister, 1989). The positive illusions of self-enhancement may include both a majority of mild and healthy self-enhancers as well as a minority of blatant and potentially maladjusted or at least socially maladapted self-enhancers, whereas studies that have used clinical or judge criteria for self-enhancement may disproportionately pick up this latter group. Accordingly, the present study also focuses on whether there is evidence for an optimal margin of illusion (Baumeister, 1989), such that those with moderate levels of self-enhancement show healthy mental and social functioning, but those with high levels of self-enhancement do not.

**Method**

**Overview**

To comprehensively assess the issues outlined above, this two-stage study involved approximately 4 hr of data collection (oral and written) from each participant along with additional data collection from three different types of judges. At Time 1, participants completed individual-differences measures, including measures of self-enhancement, self-report measures of mental health, and other personality resource measures potentially related to the two perspectives on self-enhancement noted above. Within the following week (Time 2), participants completed a structured interview that explored social relationships, home life, coping with stress, and work; functioning in these life domains reflects consensus criteria indicative of mental health (e.g., Jahoda, 1958; Jourard & Landsman, 1980). Subsequent to the interview, judge ratings of participants were collected, including clinical evaluations made by an experienced clinician (cf. Shedler et al., 1993), ratings by trained peer judges as to participants' mental health, and evaluations by participants' friends.

**Participants**

Members of the University of California, Los Angeles (UCLA) campus community responded to an ad offering $60 in return for participation in the two-stage study. Prospective participants with the following conditions were excluded from participation: serious physical or mental health problems, use of medications affecting cardiovascular or endocrine functions, current treatment by a mental health professional, or current use of mental health-related medications (e.g., Prozac). We adopted these screening precautions to reduce concern that a few depressed or anxious participants would skew the distribution of well-being, thereby providing false support for the adaptiveness of the positive extreme (self-enhancement). So as not to incur problems with demand awareness, we also excluded people with training in psychology (i.e., psychology majors and minors).

Ninety-two participants (45 men and 47 women) composed the final sample. All but 8 were currently taking at least one course at UCLA, and all were affiliated with UCLA in some capacity. Participants ranged in age from 18 to 29 years, with a mean age of 20.6 years. The sample was 43.5% European American, 43.5% Asian American, 8% Latino, 3% African American, and 2% other, a pattern that reflects the composition of the UCLA community. No participant dropped out during the course of the study.

**Personality Assessment Session (Time 1)**

Participants reported to a computer laboratory, where they completed informed consent forms and an extensive battery of psychosocial self-report scales. To ensure the privacy of responses, we had participants identify themselves by code numbers, and each participant sat at a computer situated about 10 ft (3 m) away from other participants. The session lasted 3 hr in total, with two breaks for relaxation.

Participants completed the How I See Myself Questionnaire (HSM; Taylor & Gollwitzer, 1995), a measure of self-enhancement. The scale consists of 21 positive qualities or skills (e.g., academic ability, self-respect) and 21 negative traits and characteristics (e.g., selfish, pretentious). Participants rated themselves in comparison with their peers on how much each positive and negative characteristic described them on a scale from 1 (much less than the average college student of my age and gender) to 7 (much more than the average college student of my age and gender).

They also completed two other measures of self-enhancement used by previous investigators, the Self-Deceptive Enhancement Measure (SDE; Paulhus, 1988, 1998) and an adapted version of Krueger’s (1998) Personal Desirability of Traits (PDT) measure. The PDT questionnaire is a 20-item scale that includes such items as “My first impressions about people are always right” and “I always know why I do things.” High scores on the PDT are believed to reflect rigid overconfidence (see Paulhus, 1998).

Krueger (1998) conceptualized self-enhancement as an egocentric pattern of discrepancies between self-ratings and social norms. He maintained that self-enhancement is best represented by the correlations between a person’s ratings of trait self-descriptiveness and personal ratings of the trait’s desirability, with the perceived social desirability of the same traits controlled for. We adapted Krueger’s procedure by having participants rate the descriptiveness of 42 traits (on the HSM measure described above) and then, in two separate measures, having them rate the personal desirability of those same traits and the social desirability of each trait—that is, how desirable they think each trait is to people on average. Each of these questionnaires was spaced out by approximately 20-min intervals and filler questionnaires. We then conducted an idiographic analysis for each participant, correlating self-descriptiveness for each trait with personal desirability of each trait and partialing out social desirability of each trait. We then created an average of the partial correlations for each participant.1

Measures of mental health included the Psychological Health Scales (PHS; Ryff, 1989; Ryff & Singer, 1996)—specifically, Personal Growth, Autonomy, Positive Relations With Others, Purpose in Life, and Self-Acceptance. Measures of psychological distress included the Beck Depression Inventory (BDI; Beck, 1967), the Neuroticism scale of the Eysenck Personality Inventory (EPI; Eysenck & Eysenck, 1975), the Spielberger State–Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1971), the Cook–Medley Hostility Scale (Cook & Medley, 1954), and the SCL–90–R Brief Symptom Inventory (BSI; Derogatis & Spencer, 1982).

To connect with research on the “illusion of mental health,” we also had participants complete the Early Memory Test (EMT; Mayman, 1968; Shedler et al., 1993). The EMT instructs participants to relax, allow their thoughts to go back to early childhood, and recall their earliest memory. It then prompts for a written account of that memory. Open-ended follow-up questions ask participants for their impressions of themselves in the mem-

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1 An important difference between Krueger’s (1998) original method and our own merits note. Whereas Krueger’s measure of trait descriptiveness was a simple measure of whether participants’ possessed a set of traits, ours was a comparative measure in which participants assessed the extent to which they possessed each trait relative to their same-sex peers. We used the comparative measure to avoid imposing another questionnaire on participants, after they had already rated 42 traits in the HSM measure. Although this reduced respondent burden, it also resulted in an overcorrection for self-enhancement. Krueger’s method controlled only for social desirability, whereas ours also conceptually controlled for perceived uniqueness of possessing the trait.
ory, their impressions of other people, and the mood or feeling tone associated with the memory. Following this format, the text inquires about several additional early memories. For the full text of the measure, we refer the reader to Shedler et al. (1993). Participants also completed measures assessing potential self-deception, including the Lie scale of the EPI and the Marlowe–Crowne Social Desirability Scale (Crowne & Marlowe, 1960).

A final set of scales assessed mental health resources that might relate to self-enhancement, including the Life Orientation Test (LOT; Scheier & Carver, 1985), a measure of dispositional optimism; the Rosenberg Self-Esteem Scale (Rosenberg, 1965); the Pearlin Mastery Scale (Pearlin & Schooler, 1978); the Extraversive scale of the EPI (Eysenck & Eysenck, 1975); the Giving and Receiving Support subscale from the MacArthur Midlife Inventory (MIDI), created by the MacArthur Foundation Research Network on Successful Midlife Development (Brim, 2000); the COPE (Carver, Scheier, & Weintraub, 1989), an inventory of coping responses with respect to what participants “generally do and feel when they experience stressful events’’; the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999); the Work and Community Involvement scales from the MIDI (the Work items were adapted to reflect the UCLA school environment; Brim, 2000); and the 5-item General Health subscale from the RAND 36-item Health Survey (Hays & Morales, 2001).

Participants were also asked to think of a friend who “knows you fairly well and is around UCLA this summer.” Participants were assured that none of their responses would be shared with the friend. They were asked to write the friend’s initials on the form and to answer nine questions assessing quality of the friendship: how much contact the friend has with the participant, how much the participant cares about the friend, how much the friend cares about the participant, how much the participant opens up to the friend, and how much the friend would care about the participant; these ratings provided not only a second perspective on the participant’s personal characteristics but also a potential index of self-enhancement (i.e., by enabling us to identify those who see themselves more favorably than their friends see them; cf. Colvin et al., 1995). The friends were telephoned or E-mailed and told that the participant had selected them as their friend, and they were asked to participate in a study about friendship for which they would be paid $10. Friends who agreed were given a time to meet with a research assistant.

First, the friends completed a survey about their relationship to the participant, which consisted of seven open-ended questions asking the friends about the length of the friendship, how they met, the depth of the friendship, activities they shared, the importance of sharing these activities, the importance of discussing problems and issues within the friendship, and the qualities they as a friend provided to the friendship. The friends then completed questionnaires that prompted them to peer rate the participant on the HSM Questionnaire and the nine-item Relations With Others scale from the Ryff (1989) PHS. The instructions and items to these scales were modified to instruct the friend to fill them out with the participant as the rated target.

Fifty-five of the 92 participants identified a friend who agreed to complete questionnaire measures for the study. (Because the study was run during the summer sessions, friends were often not in residence with the target participant; we believe this factor accounts for the relatively low response rate of 60%). We conducted analyses to see whether there was any pattern to those who were unable to engage a friend’s participation. High self-enhancers were equally likely to find a friend (60.1%) as were low self-enhancers (58.7%). Men (60.0%) and women (59.6%) did not differ, and there was also no difference by cultural background. In fact, no demographic or personality attribute of the participant distinguished those less likely to provide a friend from those who were.

**Peer Judge Ratings of Mental Health**

_Judgments of interviews._ Two peer judges, an Asian American woman and a European American man, were recruited to rate the interview videotapes as to participants’ mental health. Instructions to raters were derived from the criteria of mental health that have received consensus in prior investigations (e.g., Jahoda, 1958; Jouard & Landsman, 1980). Raters were told, “Many mental health researchers define mental health as positive self-regard, the ability to care for and about other people, the capacity for creative and productive work, and the ability to effectively manage and grow from stressful experiences.” The judges were given explicit instructions as to how to evaluate each of these criteria. After reviewing the interview, the judge was asked to make a rating on a 7-point scale.

Please watch this interview and consider the following questions: 1) Does this person seem to view himself/herself positively? Are there signs of low self-esteem? Are there signs of self-importance or conceit? 2) Does this person show caring for others? Does he or she seem to have close and meaningful relationships with friends? With parents and siblings? With a romantic partner? (Note: Participant may not have a romantic partner, but should express some understanding of what such a relationship should be like.) 3) Does this person express interest in an academic or work activity? Is he or she genuinely excited about something? (Note: Asian-American students are not always as exuberant as European-Americans, but may nonetheless be passionate about what their friends see them; for the content, not just the style.) Does this person demonstrate a commitment to a leisure time activity (Making something, doing volunteer work)? 4) How does this person handle stress? Well or badly? Does he or she confront it or avoid it? Has he or she been “damaged” by stress or are there signs of resilience? 5) Are there any evident signs of psychopathology in this interview?

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2 The instructions were as follows:
scale assessing “How mentally healthy would you say this person is?” (1 = extremely unhealthy, 7 = extremely healthy). Judges were unaware of all other information about participants, including their self-enhancement scores. The two judges trained together until they had achieved an acceptable level of reliability, after which they rated all the interviews independently. They achieved good interrater reliability (r = .92).

Judgments of early memories. Shedler et al. (1993) suggested that early memories provide material that may be a better source of information for clinical evaluation than are paper-and-pencil measures of mental health. They showed that both a trained psychoanalytic clinician and student judges could use responses to the EMT to identify distressed and nondistressed participants reliably. Following the procedures of Shedler et al. (1993), transcribed responses to the EMT were rated by the two peer judges. The judges were given instructions from Shedler et al. (1993) that instructed them to think of memories as indicators of a person’s present psychological makeup. They were told to notice how a person sees himself or herself vis-a-vis the world (e.g., whether the world is threatening, dangerous, malevolent, or frustrating); whether the world is associated with good or bad feelings; how others, including the parents, come across (e.g., as safe and comfortable); and whether the narrative is believable. For a complete account of the instructions, we refer the reader to Shedler et al. (1993). The judges then rated each participant on a 7-point scale ranging from 1 (extremely healthy) to 7 (extremely unhealthy). The judges trained to a reliability of .82. Judges were unaware of all other information about participants, and although they completed both rating tasks, there was no information that would enable them to link the responses of participants to the two tasks.

Clinician Ratings

According to Shedler et al. (1993), Colvin et al. (1995), and others, ratings of mental health that rely on paper-and-pencil scales and disregard clinical judgment may reach erroneous conclusions about who is healthy. Consequently, following the procedures of Shedler et al. (1993), we asked an experienced, psychoanalytically oriented clinician in private practice to assess participants’ mental health from the EMT. Following the guidelines of Shedler et al. (1993), the clinician was familiarized with the test and a subset of the materials. After he felt sufficiently familiar with the materials and the guidelines for their use, he rated the EMT protocols. He was asked to attend “to qualitative factors such as how the self was represented, how the interpersonal world was represented, the affective tone of the material, whether the memories were narratively coherent or contained inner contradictions (suggesting omissions and distortions).” The clinician was unaware of all other data on participants. He recorded dichotomous judgments, classifying participants as relatively healthy or relatively distressed, using friends’ responses to the EMT to identify distressed and nondistressed participants reliably. Following the procedures of Shedler et al. (1993), transcribed responses to the EMT were rated by the two peer judges. They showed that both a trained psychoanalytic clinician and student judges could use responses to the EMT to identify distressed and nondistressed participants reliably. Following the procedures of Shedler et al. (1993), the clinician was familiarized with the test and a subset of the materials. After he felt sufficiently familiar with the materials and the guidelines for their use, he rated the EMT protocols. He was asked to attend “to qualitative factors such as how the self was represented, how the interpersonal world was represented, the affective tone of the material, whether the memories were narratively coherent or contained inner contradictions (suggesting omissions and distortions).” The clinician was unaware of all other data on participants. He recorded dichotomous judgments, classifying participants as relatively healthy or relatively distressed, following Shedler et al. (1993). He also made a confidence judgment on a 3-point scale from 1 (not very confident) to 3 (very confident).

Results

To assess the relation of self-enhancement to mental health, initial analyses created composites of these variables.

Self-Enhancement Composite

Table 1 shows the means, standard deviations, and intercorrelations of the three self-report measures of self-enhancement—namely the HSM scale (Taylor & Gollwitzer, 1995), the SDE measure (Paulhus, 1988), and the (modified) PDT measure (Krueger, 1998)—and their respective relations to friends’ evaluations and to the Lie and Social Desirability scales. As can be seen, the self-enhancement measures are moderately intercorrelated and not significantly correlated with either the Lie scale or Social Desirability scores. To create a single index of self-enhancement, we standardized the three self-report measures of self-enhancement and combined them into a single self-enhancement index (α = .68). (Because of the reduced sample size, analyses using friends’ ratings are presented separately.)

Mental Health Composites

To create mental health composites, we entered participants’ scores from the 10 scales or subscales conceptualized as mental health outcomes into a factor analysis with promax rotation to allow for correlated factors: subscales of the PHS (Ryff, 1989; Ryff & Singer, 1996), specifically, Personal Growth, Autonomy, Positive Relations With Others, Purpose in Life, and Self-Acceptance; the BDI (Beck, 1967); the Neuroticism scale of the EPI (Eysenck & Eysenck, 1975); the STAI (Spielberger et al., 1971); the Cook–Medley Hostility Scale (Cook & Medley, 1954); and the SCL-90-R BSI (Derogatis & Spencer, 1982). Two factors accounted for 65.4% of the variance. Factor 1 (Mental Distress) accounted for 50.4% of the variance, and Factor 2 (Mental Health) accounted for 15.0% of the variance. The two factors were negatively correlated, r(92) = -.53, p < .001. Table 2 lists scale loadings on the two factors.

A set of scales assessed mental health resources that might relate to self-enhancement: the LOT (Scheier & Carver, 1985), the Rosenberg Self-Esteem Scale (Rosenberg, 1965), the Pearlin Mastery Scale (Pearlin & Schooler, 1978), the Extraversion scale of the EPI (Eysenck & Eysenck, 1975), the Giving and Receiving Support scale from the MIDI (Brim, 2000), the COPE Scale scores (Carver et al., 1989), the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999), and the Work and Community Involvement scales from the MIDI (Brim, 2000). We factored analyzed these resources using a promax rotation, and one main factor (Positive Resources) emerged, accounting for 24.2% of the variance. Table 3 lists scale loadings on the factors, and Table 4 shows the intercorrelations of the measures of mental health.
tion is positive (e.g., Taylor & Brown, 1988), and others maintain that it is negative (e.g., Robins & Beer, 2001). According to another view, a curvilinear relation characterizes self-enhancement and mental health, embodied in the optimal margin of illusion position (Baumeister, 1989)—as self-enhancement increases, mental health increases until a certain ideal point; after that ideal point, increases in self-enhancement are associated with decreases in mental health. We examined these predictions in regression analyses, using the self-enhancement index to test the linear prediction. To examine the curvilinear relationship, we squared our enhancement index (called enhancement squared). Because the mean of the enhancement index was zero, both high and low scores on the enhancement index result in high scores on enhancement squared. If there is a curvilinear relationship between enhancement and mental health, then there will be a negative beta for enhancement squared. If there is a linear relationship between enhancement and mental health, then there will be a positive beta for the enhancement index.

We conducted three multiple regression analyses in which the enhancement index and enhancement squared were simultaneously entered as predictors and the three mental health composites—namely, Mental Distress, Mental Health, and Psychological Resources—were outcomes. The enhancement index was negatively related to Mental Distress, $\beta(91) = -.50, p < .001$, such that higher scores on the self-enhancement index were associated with lower scores on the Mental Distress factor. Enhancement squared was not related to Mental Distress, $\beta(91) = .12, ns$. The enhancement index was also positively related to Mental Health, $\beta(91) = .68, p < .001$, demonstrating the linear relationship. Again, there was no evidence for a curvilinear relationship, as enhancement squared was not a significant predictor of Mental Health, $\beta(91) = -.13, ns$. The enhancement index was positively related to Psychological Resources, $\beta(91) = .71, p < .001$, and enhancement squared was also related to Psychological Resources, $\beta(91) = -.19, p < .05$. That is, there was some evidence that both high and low scores on the enhancement index were negatively related to Psychological Resources, although this curvilinear relationship was much weaker than the linear relationship. Inspection of the scatterplot suggests some leveling off of the relation rather than a truly curvilinear relation. Overall, then, the evidence suggests that self-enhancement is related to mental health in a largely linear rather than curvilinear fashion. Table 5 presents the relation of both individual measures and indices of self-enhancement to the mental health indicators, and Table 6 summarizes the regression analyses.4

The question arises as to whether these relations are driven by any specific component of the self-enhancement variable. As may be seen in Table 5, the HSM is more highly correlated with the outcome variables than are the other component measures (SDE, PDT), but the relations are consistently in the same directions for all three components.

Because the sample was nearly half Asian American, we repeated all analyses for Asian Americans and European Americans separately and found no differences between the two groups in the relations of self-enhancement to mental health. One reason for this fact may be that we excluded participants who had difficulty with English and thereby may have excluded recent immigrants. As Heine, Lehman, Markus, and Kitayama (1999) have noted, the longer Asian Americans have lived in the United States, the higher their self-esteem is.
Relation of Friends’ Ratings to Mental Health and Psychological Resource Factors

A second potential assessment of the relation of self-enhancement to mental health/distress is provided by friends’ ratings of the participants. Friends had made ratings of the participants’ personal qualities on the HSM measure. We computed the relation between friends’ and participants’ scores, using residual scores to represent deviations between the two. Accordingly, higher scores on the residuals represent self-enhancement relative to friends, whereas lower scores represent self-depreciation relative to friends (cf. Robins & Beer, 2001). Squaring the standardized residuals allows us to test for curvilinear effects, to examine whether people who are both high and low on friends’ residuals squared have poorer mental health.

We conducted three regression analyses, with standardized scores of friends’ residuals and friends’ residuals squared as the two simultaneously entered predictors and with the three composites (Mental Health, Mental Distress, and Psychological Resources) as the outcome variables. For the Mental Health factor, friends’ residuals was a significant predictor, $\beta = .57, p < .001$, and friends’ residuals squared was not, $\beta = -.04, ns$. For the Mental Distress factor, friends’ residuals was a significant predictor, $\beta = -.51, p < .001$, and friends’ residuals squared was a marginal predictor, $\beta = .24, p = .08$. Examination of the scatterplot reveals a tendency for the linear relationship to level off, but it shows no downturn in the relation of friends’ residual scores to mental distress. For the Psychological Resources factor, friends’ residuals was a significant predictor, $\beta = .55, p < .001$, and friends’ residuals squared was not a significant predictor, $\beta = -.20, ns$. Accordingly, when self-enhancement is operationalized as seeing oneself as better than one’s friend sees oneself, the relation of self-enhancement to mental health outcomes is also linear. Thus, no evidence supports the idea that people who see themselves as better than their friends see them as mentally unhealthy; indeed, quite the contrary appears to be true (see Table 6).

Relation of Self-Enhancement to Clinical Judgments of Early Memories

As a second assessment of clinical material that may provide a basis for clinical judgments of mental health, we had asked participants to record their earliest memories (Shedler et al., 1993). Following Shedler et al. (1993), an experienced private practice, psychoanalytically oriented clinician rated the participants’ EMT responses as mentally healthy or mentally distressed and made a confidence rating from 1 to 3. Multiplying 1 (healthy) and -1 (distressed) by the confidence rating yields a 6-point rating scale ranging from -3 to 3. We then conducted a multiple regression analysis, with the enhancement index and the enhancement index squared as the predictors and clinical ratings as the mental health outcome measure. There was no evidence of a linear relationship, $\beta(91) = .10, ns$, but the curvilinear relationship was significant, $\beta(91) = -.23, p < .05$. Inspection of the scatterplot revealed that the curvilinear relation was mediated by three statistical outliers. The clinician had expressed considerable dissatisfaction over making evaluations of mental health from the limited data we gave...
Similarly understood.

The scatterplot suggests that this apparent curvilinear relation may be

As expected, their ratings were significantly correlated with the

used the EMT to make judgments of participants’

ratings of -3. These three ratings carry the curvilinear relationship,

which is otherwise nonsignificant.6

As a second test of the relation of self-enhancement to clinical

testing of mental health, we conducted similar regression analyses

using friends’ residuals and friends’ residuals squared as predictors

doctor’s ratings; friends’ residuals squared was a significant predictor,

but friends’ residuals squared was a significant predictor, β(54) = -.31, p < .05. Inspection of the scatterplot suggests that this apparent curvilinear relationship may be similarly understood.

Following Shedler et al.’s (1993) procedures, peer judges also

used the EMT to make judgments of participants’ mental health.

As expected, their ratings were significantly correlated with the

clinician’s ratings of the same materials (r = .58, p < .01). The

enhancement index, β(91) = -.07, ns, and the enhancement index squared, β(91) = -.11, ns, showed no relation to the peer ratings.

We also conducted similar regression analyses using friends’

residuals and friends’ residuals squared as predictors of the peer

ratings of early memories, and neither friends’ residuals, β(54) = .03, ns, nor friends’ residuals squared, β(54) = -.25, ns, was a significant predictor.

Self-Enhancement and Relations With Others

Colvin et al. (1995), John and Robins (1994), and others have suggested that self-enhancers may have difficulty forming or

maintaining friendships. In contrast, the positive illusions position

maintains that positive illusions foster good social relationships.

Assessment of friendships. To assess whether the quality of the

friendships differed between high and low self-enhancers, we

conducted multiple regression analyses on the nine questions as-

sessing quality of the friendship. For the most part, the quality of

friendships reported by participants was not related to self-

enhancement. Only one significant effect was found: On the item

“How much can they open up to their friend?” the enhancement index squared was a significant predictor, β(54) = .31, p < .05.

Inspection of the scatterplot suggests a leveling off of an otherwise fairly linear relationship.

We also examined friends’ ratings of the participants on the

Relations With Others subscale of the PHS (Ryff, 1989). On the

item assessing how much the friend believes the participant likes

his or her personality, the enhancement index was a significant

positive predictor, β(54) = .30, p < .05, and the enhancement index squared was a marginally significant predictor, β(54) = .28, p < .06. On the item assessing how much the friend believes the participant feels disappointed about life achievements, the enhancement index was a significant (negative) predictor, β(54) = -.33, p < .05, and the enhancement index squared was a marginal predictor, β(54) = .24, p < .10. On the item “Maintaining close relationships is difficult for my friend,” the enhancement index was a marginal (negative) predictor, β(54) = -.26, p < .10, and the enhancement index squared was nonsignificant. For the item

“Friend is confident and positive about life,” the enhancement index was a marginally significant predictor, β(54) = .29, p < .06, and the enhancement index squared was nonsignificant. To summarize, the more self-enhancing the participant was vis-à-vis the friend’s ratings, the more the participant was regarded by that friend as liking his or her personality, as not being disappointed about life achievements, as having less difficulty maintaining close relationships (marginal), and as being confident and positive about life (marginal). We found some tendencies for this relation to level off at extreme discrepancies from the friend’s rating.

Determinants of positive ratings by friends. Finally, we posed

the question, “What kinds of people are perceived positively by

their friends?” Accordingly, we correlated the participants’ scores

on the mental health and psychological resources composites with

Note. N = 92 for all correlations except those involving friend–self residuals, for which N = 55. HSM = How I See Myself Measure (Taylor & Gollwitzer, 1995); SDE = Self-Deceptive Enhancement Measure (Paulhus, 1998); PDT = Personal Desirability of Traits (Krueger, 1998); EMT = Early Memory Test (Mayman, 1968).

* p < .05. ** p < .01.

6 Following the analytic procedures of Shedler et al. (1993), we also subdivided the sample of participants judged distressed or healthy by the clinician into those who scored above or below the median on Neuroticism. To assess Shedler et al.’s (1993) assertion that people who are prone to distort their personal characteristics (e.g., self-enhance) are also prone to give distorted responses to mental health scale items, we compared the self-enhancement scores of those in the healthy (i.e., low neurotic, low distress) group with those in the illusory mental health (i.e., low neurotic, high distress) group. The Shedler et al. hypothesis that high self-enhancers will disproportionately be represented in the illusory mental health category was not confirmed.
the friends’ ratings of the participant on the HSM. This analysis essentially asks the question, “What are the personal qualities of people that lead their friends to see them positively?” Friend ratings were significantly negatively correlated with the Mental Distress factor, \( r(55) = -.30, p < .05 \), significantly positively correlated with the Mental Health factor, \( r(55) = .28, p < .05 \), and significantly positively correlated with the Psychological Resources factor, \( r(55) = .48, p < .001 \). These results not only create a profile of the type of friend who is perceived positively by others but also address one of the criticisms of self-report measures of the friends “essentially asks the question, ‘what are the personal qualities of people that lead their friends to see them positively?’” Friend ratings were significantly positively correlated with the Mental Health factor, \( r(55) = .57, p < .05 \), and significantly associated with the participants’ ratings of the participants’ attributes are reliably and significantly associated with the participants’ self-ratings on standardized measures of personality and mental health suggests that these ratings reflect something real about the target participant and the ways the person interacts with friends.

Discussion

The present investigation uses multiple assessments of self-enhancement and multiple indicators of mental health to examine whether self-enhancement is positively related to mental health, as the positive illusions position maintains (Taylor & Brown, 1988), negatively related to mental health, as the defensive neuroticism position maintains (e.g., Colvin et al., 1995; Paulhus, 1998; Shedler et al., 1993), or related in curvilinear fashion to mental health, as the optimal margin of illusion position maintains (Baumeister, 1989). Little support was found for either the defensive neuroticism or the optimal margin of illusion position. Instead, across multiple measures and indicators, the relation of self-enhancement to mental health was largely linear and positive, as the positive illusions position predicts. These results cannot be accounted for by the responses of a few highly anxious, depressed, or otherwise distressed participants, because screening procedures precluded such individuals from participating in the study.

Despite the different theoretical origins of the individual measures of self-enhancement—that is, the How I See Myself measure (Taylor & Gollwitzer, 1995); the Self-Deceptive Enhancement measure developed by Paulhus (1998); and an adapted Personal Desirability of Traits measure developed by Krueger (1998)—the patterns of relations to mental health indicators were quite similar and support a linear relation between self-enhancement and psychological adjustment. Nor can these findings be explained as a function of shared method variance, inasmuch as the pattern is evident when judge ratings of mental health are used as the outcome variable as well.

The sole exception to the generally linear pattern is the judgments of early memories made by the clinician. Although neither the clinician nor the peer ratings were significantly correlated with any of the measures of self-enhancement, the clinician ratings were significantly related in curvilinear fashion to both the enhancement index squared and the discrepancies from friends’ measure of self-enhancement squared. As noted, these relations were statistically driven by three outliers in a set of judgments otherwise made with low confidence. The possibility remains, however, that with a larger sample, the clinician could have reliably detected mental distress in early memories at both high and low levels of self-enhancement.

A considerable previous literature has characterized those who self-enhance as narcissistic and self-promoting in ways that may reflect poor mental health (e.g., Shedler et al., 1993) and/or lead others to see them as conceited, hostile, self-important (Colvin et al., 1995), self-centered, or narcissistic (Paulhus, 1998). Using a self-enhancement measure that parallels that of Colvin et al. (1995), namely positive discrepancies between self-perceptions and perceptions of friends, we found little evidence for this hypothesis. On several measures of mental health, participants who regarded themselves more favorably than their friends saw them emerged as more—not less—mentally healthy, as compared with those who saw themselves similarly to how their friends saw them. The friendships of high self-enhancers were also just as long and as positively regarded as those of low self-enhancers. When self-enhancement was associated with friends’ perceptions, it was in the direction opposite to that predicted by the defensive narcissism position: The more self-enhancing individuals were seen more positively by their friends. There was, accordingly, no evidence that high self-enhancers experienced social costs. There are several possible interpretations of this relationship. It may be that more

### Table 6

<table>
<thead>
<tr>
<th>Mental health measure</th>
<th>Enhancement index</th>
<th>Enhancement index squared</th>
<th>Friend–self residuals</th>
<th>Friend–self residuals squared</th>
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</thead>
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<tr>
<td>Mental Health factor</td>
<td>.68**</td>
<td>-.13</td>
<td>.57**</td>
<td>-.04</td>
</tr>
<tr>
<td>Mental Distress factor</td>
<td>-.50**</td>
<td>.12</td>
<td>-.51**</td>
<td>.24</td>
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<tr>
<td>Psychological Resources factor</td>
<td>.71**</td>
<td>-.19*</td>
<td>.55**</td>
<td>-.20</td>
</tr>
<tr>
<td>Peer-rated mental health</td>
<td>.23*</td>
<td>-.06</td>
<td>.22</td>
<td>.02</td>
</tr>
<tr>
<td>Clinical ratings of mental health (EMT)</td>
<td>.10</td>
<td>-.23*</td>
<td>.20</td>
<td>-.31*</td>
</tr>
<tr>
<td>Peer ratings of mental health (EMT)</td>
<td>-.07</td>
<td>-.11</td>
<td>.03</td>
<td>-.25</td>
</tr>
</tbody>
</table>

Note. \( N = 92 \) for all correlations except those involving friends’ residuals, for which \( N = 55 \). EMT = Early Memories Test (Mayman, 1968).

* \( p < .05 \). ** \( p < .01 \).
mentally healthy individuals are better liked by their friends, and/or it may be that regard from others actively contributes to mental health. Regardless of the direction of causality, high self-enhancers were both better liked and more mentally healthy than those who were less self-enhancing. Whether friends’ assessments of self-enhancers would have continued to be positive over time is unknown (although, on average, the friendships had lasted 4 years, which seems to be ample time for any adverse impact of self-enhancement to be felt). It is also possible that high self-enhancers pick friends with particular qualities, such as being easily impressed. The present study does not allow us to assess this possibility.

Much concern about self-enhancement has focused on the need for an accuracy criterion, the implicit argument being that those who really are better than others will look mentally healthy, whereas those who are falsely self-aggrandizing will look less so. The procedures used in the present study to examine this possibility, which included discrepancies from friends’ perceptions, self-deceptive enhancement, and clinical evaluations of mental health, were unsuccessful in distinguishing a group of unhealthy self-enhancers. Indeed, contrary to such a distinction, the present results suggest that it may not matter whether self-enhancement is accurate. In terms of psychological health and getting along with others, the present study found uniform evidence that self-enhancement was linearly associated with beneficial outcomes.

Therefore, what accounts for the discrepancies between our findings and those of researchers who have found self-enhancement to be associated with adverse mental health and negative social consequences? One possible explanation hinges on the fact that researchers working from a positive illusions framework assess general self-perceptions, whereas critics of the framework have more typically examined self-enhancement in public, accountable circumstances as a departure from the perceptions of others or from objective standards. This operational difference has not occurred by chance—it reflects underlying conceptual differences in the theoretical positions. Critics of the positive illusions framework conceptualize self-enhancement as an enduring aspect of a personality profile marked by self-deceptive, neurotic narcissism that is reflected in behavior across time and situations. Positive illusions researchers argue, in contrast, that self-enhancing illusions are situationally responsive. Specifically, positive illusions are lessened as verifiability increases. Consistent with this point is evidence that positive illusions are more evident at the general than at the specific level (Armor & Taylor, in press), more in evidence at the beginning of a project than the end of a project (e.g., Shepperd, Ouellette, & Fernandez, 1996), more in evidence with respect to ambiguous personal qualities than with respect to concrete personal qualities with clear behavioral referents (e.g., Dunning, Meyerowitz, & Holzberg, 1989), and more in evidence when a course of action has been selected than when it is under debate (Taylor & Gollwitzer, 1995).

As this analysis suggests, self-enhancement need not be manifested in interpersonal interactions or be apparent to others to be self-enhancement. Privately held self-perceptions and public self-presentation can be very different, guided by different demands, situational pressures, and needs: Some people may think very well of themselves but make quite modest self-presentation, whereas other people may think very poorly of themselves yet present themselves to others in grandiose or narcissistic fashion (Baumeister, 1986). Accordingly, the self–judge discrepancy measures used by other investigators in accountable situations (e.g., Colvin et al., 1995; John & Robins, 1994; Shedler et al., 1993) may be tapping poor self-presentation or lack of social skills rather than positive self-regard.

Paralleling an earlier argument for unrealistic optimism (Armor & Taylor, 1998), we suggest that the majority of healthy people are most likely to be self-enhancing at the general or abstract level, where the chances that they will be proven wrong are negligible, but they become more conservative and modest in specific social situations, when their self-assessments might be subject to scrutiny (cf. McKenna & Myers, 1997). Norms for self-presentation typically dictate modesty; most people are aware of this, so people who violate these norms may be a socially maladept and/or maladjusted minority. It may be this group that shows the adverse mental health characteristics and poor social impressions so persuasively documented by Colvin et al. (1995), Paulhus (1998), Robins (John & Robins, 1994; Robins & Beer, 2001), and others. These points suggest a need to discriminate two qualitatively different phenomena of private versus public self-enhancement (cf. Baumeister, 1986). They also suggest a need to discriminate self-enhancement in specific situations where the validity of self-assessments is verifiable and private self-enhancement in general appraisals that are not readily verifiable.

Limitations

There are several limitations to the present study. Chief among these is the absence of longitudinal evidence, which would permit a better assessment of the impact of self-enhancement on friends’ and judges’ long-term reactions to self-enhancers (e.g., Colvin et al., 1995; Paulhus, 1998; although, recall that, on average, the friendships had lasted 4 years). A second limitation is that the data are correlational in nature. As a consequence, they do not permit inferences concerning the causal directions of these relations. It may be that self-enhancement leads to psychological health, or it may be that people who are more psychologically healthy see themselves in a self-enhancing manner.

Conclusion

In closing, the evidence of the present investigation supports the conclusion that self-enhancement is associated with good mental health. Believing one has more talents and positive qualities than one’s peers allows one to feel good about oneself and to enter the stressful circumstances of daily life with the resources conferred by a positive sense of self. As such, these self-enhancing beliefs may help people achieve mental health and behave positively toward others, thriving, in part, through the personal resource of their own positive self-regard.

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