

Research Report

VERY HAPPY PEOPLE

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Abstract—A sample of 222 undergraduates was screened for high happiness using multiple confirming assessment filters. We compared the upper 10% of consistently very happy people with average and very unhappy people. The very happy people were highly social, and had stronger romantic and other social relationships than less happy groups. They were more extraverted, more agreeable, and less neurotic, and scored lower on several psychopathology scales of the Minnesota Multiphasic Personality Inventory. Compared with the less happy groups, the happiest respondents did not exercise significantly more, participate in religious activities significantly more, or experience more objectively defined good events. No variable was sufficient for happiness, but good social relations were necessary. Members of the happiest group experienced positive, but not ecstatic, feelings most of the time, and they reported occasional negative moods. This suggests that very happy people do have a functioning emotion system that can react appropriately to life events.

Investigations of very unhappy individuals, such as people with anxiety and mood disorders, abound in the psychological literature (Myers, 2000). In contrast, investigations of happy people are rare, and investigations of very happy people do not exist. This imbalance probably stems from clinical psychology's historic emphasis on pathology, coupled with the belief that understanding abnormal processes can illuminate normal processes. We have the complementary belief: that understanding "supranormal" individuals can illuminate normal processes, and that knowing how very happy people function might provide information on how to buffer very unhappy people against psychopathology (Seligman & Csikszentmihalyi, 2000). We report here the first study of the behavioral and personality correlates of high happiness.

In this study, we examined some factors that seem likely to influence high happiness: social relationships, personality and psychopathology, and variables (e.g., religiosity and exercise) that have been related to subjective well-being in correlational studies. In addition to examining how the happiest respondents compared with the average and with very unhappy respondents on these variables, we examined the patterns of necessity and sufficiency. For a variable to be sufficient for happiness, all persons with that variable should be happy (i.e., if *X*, always happy)—and therefore virtually no unhappy people should possess the variable. For a variable to be necessary for happiness, virtually every happy person should possess that variable (i.e., if happy, then *X*). Thus, in these analyses, we examined whether there is a "key" to happiness—a variable that is both necessary and sufficient for happiness.

A third purpose of the study was to examine the moods and emotions of the happiest individuals. Did they experience mostly euphoric feelings or only moderate positive emotions on most occasions? Did they experience occasional unpleasant emotions? If the happiest peo-

ple never experienced negative emotions and were locked into euphoric feelings, the state might be dysfunctional because these individuals would not react to the events happening to them and would not receive calibrated feedback from their emotions.

METHOD

The primary sample for this study emerged from a semester-long intensive study of 222 college students at the University of Illinois. This sample was screened for high happiness using combined filters: First, very happy individuals, average, and the least happy individuals were identified by an aggregate based on peer reports of affect, global self-reports of life satisfaction and affect collected on several occasions separated by months, and daily reports of affect over 51 days. Next, the placement of individuals in these groups was refined using three additional measures.

The following measures were used initially to divide respondents into groups:

- *Satisfaction With Life Scale*: This scale was administered on three occasions—early, middle, and late semester. Scores on the scale range from 5 to 35 (5 = *extreme dissatisfaction*, 20 = *neutral*, and 35 = *extreme satisfaction*; Diener, Emmons, Larsen, & Griffin, 1985). The mean average of these scores is reported in Results.
- *Global self-reported affect balance*: Self-reported affect was measured by asking the students on two occasions (middle and late semester) how often they felt each of 8 positive emotions and 16 negative emotions (each emotion reported on a scale from 1 = *none* to 7 = *always*) in the past month. Global affect balance was calculated as the mean frequency of the positive emotions minus the mean frequency of the negative emotions (see Diener, Smith, & Fujita, 1995).
- *Informant affect balance*: Affect was also measured by asking informants to rate how often the participants experienced positive and negative emotions (using the same mood adjectives as for self-reported affect). On average, five informants rated each participant. The score for each participant was calculated by subtracting the mean for negative adjectives from the mean for positive adjectives.
- *Daily affect balance*: Respondents reported their affect each day for 51 days. Daily affect balance was calculated as the mean frequency of positive-mood adjectives minus the mean frequency of negative-mood adjectives across an individual's quotidian reports.

These four measures were standardized, and the *z* scores for each individual were added. The highest and lowest 10% were then selected on the basis of this distribution, and the remaining respondents were divided into three groups of roughly equal size.

Next, we used a discriminant function with three alternate measures to refine the assignments to the middle, lowest, and highest groups (omitting the second and fourth groups). We determined whether these three measures would lead to the same group assignments as the first four, and as a result of this analysis discarded from the very happy group 1 individual who was classified differently by

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the additional measures. The three measures used for this second stage of filtering were as follows:

- *Memory event recall balance*: Each respondent was given 2 min each to recall positive events from the past year, positive events from his or her lifetime, negative events from the past year, and negative events from his or her lifetime. Positive event recall balance was calculated as the total number of positive events recalled minus the total number of negative events recalled (Sandvik, Diener, & Seidlitz, 1993).
- *Trait self-description*: Respondents completed a forced-choice task in which they selected adjectives that described themselves. The score on this measure was calculated as the probability of selecting happy emotion adjectives over equally desirable non-emotional positive personality adjectives minus the probability of selecting unhappy emotion adjectives over equally undesirable nonemotional negative personality adjectives (Sandvik et al., 1993)
- *Interview suicide measure*: Scores on this measure of suicidal thoughts and behavior could range from 0 (*have never thought of committing suicide*) to 5 (*have made active attempts to commit suicide*).

The discriminant function accurately predicted membership in the very happy group 96% of the time, indicating the strong validity of the initial division into groups. The 1 respondent whose group membership was not accurately predicted scored low on two of the additional measures and was discarded from the very happy group, leaving 14 women and 8 men in the group.

We compared the happiest 10% of people according to these criteria ($n = 22$), the unhappiest 10% ($n = 24$), and the average group, which constituted the middle 27% of the sample ($n = 60$). We also conducted continuous regression analyses, but present the data by categories for clarity, and to make evident how the happiest people differed from both average and unhappy individuals.

During the course of the semester, we collected peer, global self-report, and daily measures on a variety of variables that seemed likely

to covary with happiness. In addition to obtaining emotion reports at the end of each of 51 days, we obtained reports on other activities and experiences (e.g., on religious activities, exercise, and lowest and highest mood).

RESULTS

How happy were the groups? The very happy group scored about 30 on life satisfaction (the scale ranged from 5 to 35), had virtually never thought about suicide, could recall many more good events in their lives than bad ones, and reported many more positive than negative emotions on a daily basis. In contrast, the very unhappy group was rated as dissatisfied by their friends and family, and they rated themselves the same way. The very unhappy group reported about equal amounts of negative and positive affect on a daily basis. The average group was halfway between these other two groups; they were somewhat satisfied with life, and experienced more positive than negative emotions. Table 1 presents the means and standard deviations of the three groups on the various measures of subjective well-being.

The very happy group differed substantially from the average and the very unhappy groups in their fulsome and satisfying interpersonal lives. The very happy group spent the least time alone and the most time socializing, and was rated highest on good relationships by themselves and by informants. Table 2 presents the means for the three groups on these interpersonal variables. Although these statistical relations are strong (the eta-squared values indicate that large portions of variance between the groups can be predicted by social relationships), no one of the variables was sufficient for high happiness: Some members of the very unhappy group reported satisfactory family, interpersonal, and romantic relationships, and frequent socializing. The lack of sufficiency was true for every variable, with some unhappy people scoring well on each predictor variable. Good social relationships might be a necessary condition for high happiness, however; all members of the very happy group reported good-quality social relationships.

Table 1. Means (and standard deviations) of the three groups on measures of subjective well-being

Measure (possible range)	Group		
	Unhappy	Average	Very happy
Satisfaction with life (5 to 35)	15.7 (3.8)	25.7 (3.3)	29.4 (2.6)
Global self-reported affect balance (-6 to +6)	0.1 (0.8)	1.8 (0.5)	3.5 (0.5)
Informant affect balance (-6 to +6)	0.8 (0.7)	1.9 (0.7)	3.0 (0.5)
Daily affect balance (-6 to +6)	0.3 (0.7)	1.6 (0.4)	3.7 (0.5)
Memory event recall balance (unrestricted)	0.9 (4.1)	4.1 (4.4)	10.5 (4.7)
Trait self-description (-1.0 to +1.0)	-.3 (.2)	.1 (.3)	.3 (.4)
Interview suicide measure (0 to 5)	1.7 (1.5)	0.7 (1.3)	0.2 (0.5)

Table 2. *Social relationships of the three groups*

Measure (possible range)	Group			η^2
	Very unhappy	Middle	Very happy	
Self-rating of relationships (1 to 7) ^a				
Close friends	4.1a	5.2b	6.3c	.24
Strong family relationships	3.7a	5.8b	6.4b	.36
Romantic relationship	2.3a	4.8b	6.0c	.38
Peer rating of target's relationships (1 to 7) ^a	4.2a	5.3b	6.1c	.44
Daily activities (1 to 10) ^b				
Mean time spent alone	5.8a	5.0ab	4.4b	.12
Mean time spent with family, friends, and romantic partner	3.6a	4.5b	5.1c	.28

Note. The overall Wilks's lambda for the multivariate analysis of variance (MANOVA) was significant, $p < .001$. All individual dependent variables in the MANOVA are significant at $p < .01$ or less. Within each dependent variable, groups with different letters differ significantly from one another at $p < .05$ or less.

^aOn the rating scale, 1 represented *much below the average University of Illinois student*, and 7 represented *much above the average University of Illinois student*.

^bOn the rating scale, 1 represented *no time*, and 10 represented *8 hr/day*.

There were personality and psychopathology differences among the three groups as well. The psychopathology scores from the Minnesota Multiphasic Personality Inventory (MMPI) tended to be lowest, most of them significantly so, for the very happy group, except for the Hypomania score. The very happy group virtually never scored in the clinical range ($T = 65$ and above) on the MMPI scales (except for 6 individuals who scored high on the Hypomania scale), whereas almost half the individuals in the very unhappy group did so. Again, there was a necessary but not sufficient pattern: The very happy group virtually always had normal scores, although members of the very unhappy group also often scored in the normal range. In addition, the very happy group was more extraverted, had lower neuroticism scores, and had higher agreeableness scores than the other two groups. Personality dimensions that failed to significantly distinguish the very happy group included conscientiousness, openness to experience, and affect intensity. Table 3 presents the main findings for personality and psychopathology variables.

Although the very happy group had a slight advantage on a number of other variables, they did not differ significantly from the average group on these factors: their perception of how the amount of money they had compared with what other students had, the number of objectively positive and negative events they had experienced, grade point average (from college transcripts), objective physical attractiveness (rated by coders from pictures), use of tobacco and alcohol (from daily recording over 51 days), and time spent (based on daily recordings) sleeping, watching television, exercising, and participating in religious activities.

Were the very happy people ecstatic? No. We sampled them on 92 moments, but the members of the very happy group never reported their mood to be "ecstatic" or at the very top of the 10-point scale. They did, however, frequently assign their moods a rating of 7 or 8, and often even 9. Were they always happy? No again. All members of the very happy group at least occasionally reported unhappiness or neutral moods; on about half the days, the happiest people experi-

enced a negative mood, but only 7% of the time did they report a very negative mood (1 or 2 on the 10-point scale). Their average mood was 7.7, between "mildly happy" (7) and "spirits high, feeling good" (8).

DISCUSSION

Our study's conclusions are limited by the sample and by its correlational method; broader samples and longitudinal methods will be very desirable in the future. However, we did use strong and thorough measures of happiness, and examined a number of theoretical issues for the first time. To the best of our knowledge, this is the first report to focus on very happy individuals. In addition, we included daily measures of many of our variables over a span of almost 2 months. Therefore, the findings are intriguing, despite being limited to a sample of college students measured in cross section.

Our findings suggest that very happy people have rich and satisfying social relationships and spend little time alone relative to average people. In contrast, unhappy people have social relationships that are significantly worse than average. One might conjecture that good social relationships are, like food and thermoregulation, universally important to human mood. Because our data are cross-sectional, we do not know if rich social lives caused happiness, or if happiness caused rich social lives, or if both were caused by some third variable. It is interesting, however, that social relationships form a necessary but not sufficient condition for high happiness—that is, they do not guarantee high happiness, but it does not appear to occur without them. In addition, extraversion, low neuroticism, and relatively low levels of psychopathology form necessary, but not sufficient, conditions for high happiness. Thus, there appears to be no single key to high happiness that automatically produces this state. Instead, high happiness appears to have a number of necessary preconditions that must be in place before it occurs. High happiness seems to be like beautiful symphonic music—necessitating many instruments, without any one being sufficient for the beautiful quality.

Table 3. *Personality of the three groups*

Measure	Group			η^2
	Very unhappy	Middle	Very happy	
Self-reports				
Affect intensity	150.2a	158.2a	161.1a	n.s.
Big Five				
NEO Extraversion	104.9a	120.4b	132.9c	.25
NEO Neuroticism	113.8a	90.7b	72.2c	.32
NEO Agreeableness	41.2a	44.6a	50.9b	.12
NEO Conscientious	38.2a	44.6b	40.8ab	.07
NEO Openness	124.2a	115.4a	120.1a	n.s.
Minnesota Multiphasic Personality				
Inventory Pathology scales (with K corrections)				
Hypochondriasis	15.0a	13.7b	12.1b	.06
Depression	26.9a	19.8b	15.9c	.39
Hysteria	23.0a	22.0a	20.0a	n.s.
Psychopathic	28.8a	24.3b	21.0c	.22
Paranoia	12.3a	10.1b	8.8b	.14
Psychasthenia	35.8a	29.7b	25.8c	.31
Schizophrenia	37.1a	29.9b	25.0c	.28
Hypomania	23.9a	23.9a	24.5a	n.s.
Family Conflict	8.5a	6.3b	4.8c	.22

Note. The overall Wilks's lambdas for the multivariate analyses of variance (MANOVAs) of both sets of variables were significant, $p < .001$. Where etas are shown, groups differ overall on that dependent variable by $p < .05$ or less. Within each dependent variable, groups with different letters differ significantly from one another at $p < .05$ or less. The affect-intensity measure was from Larsen and Diener (1987). NEO = NEO Personality Inventory (Costa & McCrae, 1985).

Being very happy does not seem to be a malfunction (Alloy & Abramson, 1979). The very happiest people experience unpleasant emotions not infrequently. Although they feel happy most of the time, their ability to feel unpleasant emotions at certain times is undoubtedly functional. Similarly, the happiest people rarely feel euphoria or ecstasy. Instead, they feel medium to moderately strong pleasant emotions much of the time. Again, this pattern seems to be functional in that even very happy people have the ability to move upward in mood when good situations present themselves, and are able to react with negative moods when something bad occurs.

Our findings are limited by the fact that the sample was restricted to college students. Nonetheless, we have replicated the necessity of satisfying social relationships for high happiness in an unpublished analysis of a multination survey based on large probability samples of adults. It could be, however, that variables such as religiosity and exercise will show a greater influence in broader samples of adults.

A useful five-step research strategy for investigating the negative end of personality has developed over the past 40 years: (a) isolate a group of individuals at the extreme negative end (e.g., depressive disorder) and study them intensively, (b) measure their personality and lifestyle, (c) track them longitudinally to understand naturally occurring increases or decreases in their well-being, (d) intervene behaviorally or pharmacologically to improve their well-being, and (e) assess

the outcomes of these interventions. We suggest that exactly the obverse strategy is likely to illuminate the causes and building blocks of human well-being, and we present this study as a first attempt.

REFERENCES

- Alloy, L., & Abramson, L. (1979). Judgment of contingency in depressed and nondepressed students: Sadder, but wiser. *Journal of Experimental Psychology: General*, *108*, 441–485.
- Costa, P.T., & McCrae, R.R. (1985). *The NEO Personality Inventory*. Odessa, FL: Psychological Assessment Resources.
- Diener, E., Emmons, R.A., Larsen, R.J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, *49*, 71–75.
- Diener, E., Smith, H., & Fujita, F. (1995). The personality structure of affect. *Journal of Personality and Social Psychology*, *69*, 130–141.
- Larsen, R.J., & Diener, E. (1987). Emotional response intensity as an individual difference characteristic. *Journal of Research in Personality*, *21*, 1–39.
- Myers, D. (2000). The funds, friends, and faith of happy people. *American Psychologist*, *55*, 56–67.
- Sandvik, E., Diener, E., & Seidlitz, L. (1993). Subjective well-being: The convergence and stability of self-report and non-self-report measures. *Journal of Personality*, *61*, 317–342.
- Seligman, M.E.P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *35*, 5–14.

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