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Pers Soc Psychol Bull 1985 11: 89
DOI: 10.1177/0146167285111008

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Personality Correlates of Subjective Well-Being

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This study investigated the personality correlates of three dimensions of subjective well-being (SWB): Positive affect, negative affect, and life satisfaction. Participants in two samples completed daily mood reports and a number of relevant personality inventories. Interpersonal competencies were found to correlate most strongly with positive affect, internal emotional states with negative affect, whereas the correlates of life satisfaction included both interpersonal competencies and internal emotional states. In general, results supported Costa and McCrae's (1980) model postulating two different sets of personality traits that influence positive and negative affect separately.

Demographic variables fail to account for substantial amounts of variance in individuals' perceptions of their subjective well-being (Andrews & Withey, 1976; Diener, 1984; Wilson, 1967). Partly as a result of the lack of predictive power of external factors, researchers have turned to internal influences on subjective well-being such as personality variables. The present study is concerned with delineating personality influences on subjective well-being.

One of the most interesting findings in the literature is that subjective well-being (SWB) consists of three primary components: life satisfaction, positive affect (PA), and negative affect (NA) (Andrews & Withey, 1976). Positive affect consists of pleasant emotions or feelings such as joy and happiness, whereas negative affect consists of unpleasant emotions or feelings such as sadness and fear. Life satisfaction refers to a cognitive, judgmental process—a global assessment of one's life as a whole (Diener, 1984). A number of investigators have demonstrated that average levels of positive and negative affect are relatively independent of each other in people's lives. Methodologies used in these studies have ranged from large-scale national surveys (Bradburn, 1969; Bryant & Veroff, 1982) to intensive studies of daily mood (Diener & Emmons, in press; Zevon & Tellegen, 1982). It has also been found that the third component, life satisfaction, is only slightly correlated with positive and negative affect (Campbell, Converse, & Rodgers, 1976).

Several early studies did not distinguish among the components of SWB and usually measured global happiness along a single, bipolar dimension. Wilson (1967), in a review of the literature, reported that social and family adjustment and high self-esteem were most often found to correlate with global happiness. He also concluded that happiness is consistently related to successful in-

Personality and Social Psychology Bulletin, Vol. 11 No. 1, March 1985 89-97
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volvement with others. Other more recent studies have investigated the personality correlates of positive and negative affect separately. Bradburn (1969) found that positive affect was related to social interest, sociability, and activity, whereas negative affect was correlated with anxiety, worry, psychosomatic symptoms, and neuroticism. Several other researchers (e.g., Costa & McCrae, 1980; Warr, Barter, & Brownbridge, 1983) have found that extraversion is related to positive but not negative affect. Costa and McCrae (1980) argued that extraversion and related traits influence only positive affect, whereas neuroticism and related traits influence only negative affect.

The above studies used Bradburn's (1969) affect scales to assess positive and negative affect. These scales have a number of inherent problems, ranging from specificity of item content to low reliabilities (Brenner, 1975; Diener & Emmons, *in press*; Larsen, Diener, & Emmons, 1983). Although the Bradburn scales do possess some amount of validity, as they correlate moderately with other measures of well-being (Costa & McCrae, 1980; Larsen, et al., 1983), the scales also possess enough limitations that searching for additional measures is desirable. Emmons and Diener (1983) avoided the problems of the Bradburn scale by measuring positive and negative affect daily over an extended period of time. They demonstrated that although the sociability component of extraversion correlates highly with positive affect, the impulsivity component correlates more strongly with negative affect.

The primary purpose of the present study is to investigate the personality correlates of positive affect, negative affect, and life satisfaction. The present research goes beyond previous efforts in two important ways: (1) we measured daily reported affect over an extended period of time in order to avoid the problems inherent in the use of single occasion mood scales such as Bradburn's, and (2) a more diverse set of personality dimensions were included, because previous reports on the personality correlates of affect have usually focused on only one or two dimensions of interest. Another purpose of the present study is to provide further evidence that positive and negative affect are independent in people's lives (Diener & Emmons, 1984). Should positive and negative affect correlate separately with different variables, this would be strong evidence in support of the independence of the two types of affect. Because personality variables might correlate with SWB differently in different samples, an important feature of the present study is to cross-validate findings across two samples.

METHOD

Participants were recruited through an announcement posted in the psychology department describing an independent study opportunity. The participants in the study included 2 separate samples of undergraduate students from a variety of different majors at the University of Illinois. Sample 1 consisted of 74 (38 females, 36 males) students enrolled in a semester-long research project on subjective well-being. Sample 2 consisted of 62 participants (38 females, 24 males) enrolled in a similar research project in a different

semester. Enrollees were not required to participate in the study as subjects. A number of alternative experimental tasks were also available. The subjects were quite heterogeneous insofar as is possible in a student sample. There were virtually no constraints on what university students could enroll if they were interested. Thus enrollment in the course reflected varying motivations ranging from the desire for better self-understanding to the lack of traditional homework and grading procedures. Subjects received 3 hours of course credit for participating.

In Sample 1, subjects completed mood reports daily for 84 consecutive days. The subjects in Sample 2 completed mood reports for 56 consecutive days. Mood reports were filled out at the end of each day before subjects went to sleep. Each subject was required to turn in their form the next morning in order to ensure daily completion. Virtually 100% cooperation was obtained. It should also be pointed out that participants were free to withdraw from the project at any point. The mood report consisted of a large number of monopolar affect adjective scales. Based on earlier factor analytic work (Diener & Emmons, 1984), four adjectives were chosen to represent positive affect (happy, joyful, pleased, and enjoyment/fun) and five adjectives were chosen to represent negative affect (unhappy, depressed, frustrated, worried/anxious, and angry/hostile). The four positive affect adjectives were summed to produce a composite positive affect score and the five negative affect adjectives were summed to produce a composite negative affect score. These composite affect scales have been employed in other studies (Diener & Larsen, 1984; Diener, Larsen & Emmons, 1984) and both their temporal reliability and internal consistency coefficients approach .90. These affect scales also do not correlate significantly with measures of social desirability (Larsen et al., 1983). There is evidence for the validity of these scales as they correlate with various other measures of subjective well-being and with daily behaviors (Larsen et al., 1983). Finally, parental and peer ratings of affect correlate significantly with these ratings of affect (Larsen, 1984). Subjects indicated the extent to which they felt each of the nine moods on a seven-point scale, ranging from "not at all" to "extremely much." Mean positive and negative affect scores were then computed for each subject based on the duration of the study.

In order to measure life satisfaction, subjects in both samples were administered the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, in press). The SWLS is a five-item scale designed to assess global life satisfaction—an evaluative judgment of one's life as a whole. Coefficient alpha of the SWLS ranges from .86 to .90, and the SWLS is uncontaminated by social desirability response bias (Diener et al., in press). Other reliabilities and validities of the scale are given in Diener et al. (in press).

The decision as to which personality dimensions to include was based on previous research and theory into the relationship between personality and subjective well-being. Administered to both samples were the EASI-III survey of temperaments (Buss & Plomin, 1975), the Eysenck Personality Inventory (Eysenck & Eysenck, 1964), the Interpersonal Checklist (ICL; LaForge &

Suczek, 1955), the Self-Perception Inventory, which assesses self-esteem (Soares & Soares, 1965), and Rotter's Locus of Control Scale (Rotter, 1966). In order to help achieve the goal of comprehensiveness, a multidimensional inventory, the 16PF (Cattell, Eber, & Tatsuoka, 1970) was also included. The personality inventories were administered throughout the daily study in small groups of four to six individuals.

Given the dimensions examined in this study, and previous research and theory, it was hypothesized that extraversion would be related to positive but not to negative affect, and neuroticism with negative but not with positive affect. Also, sociability and activity should be related to positive affect, emotionality and impulsivity to negative affect, external locus of control to negative affect, and self-esteem to life satisfaction.

RESULTS

The correlations between positive and negative affect are not significantly different from zero in either sample (r 's = $-.15$ and $.16$). Thus the independence found previously between positive and negative affect is not simply due to peculiarities in the Bradburn scale or in processes related to long-term mood reports. When subjects report their affect daily over a long period of time, average levels of positive and negative affect correlate at low levels with each other. Thus some individuals experience much positive and negative affect, some experience low levels of each, and still others feel much of one type of affect and low levels of the other type. Both negative and positive affect are moderately correlated with life satisfaction (r 's range from $-.25$ to $.46$), supporting Andrews and Withey's (1976) contention that judgments of life satisfaction are only partially dependent on one's affective life.

The correlations between the 16PF scales and the SWB measures are presented in Table 1. It can be seen that those scales correlating most highly with positive affect are those that contribute to the second order extraversion factor: warmth, surgency, and social boldness. Similarly, for negative affect, those scales that contribute to the second order anxiety factor correlate highly with negative affect: tenderminded, guilt proneness, and tense. It should also be noted that in most cases, the variables that correlate significantly with PA do not correlate significantly with NA, and vice-versa. Turning to life satisfaction, it is the extraversion-related traits that seem to be most related to satisfaction judgments, whereas anxiety-related traits do not seem to correlate with this dimension of SWB.

Table 2 shows the correlations between the remaining personality dimensions and the subjective well-being measures. As predicted, sociability and extraversion correlated significantly with PA, and emotionality and neuroticism correlated significantly with NA. It should also be noted that it is the sociability component of extraversion that is most strongly related to both positive affect and life satisfaction, as predicted. Self-esteem correlated positively with life satisfaction, as hypothesized, and external locus of control correlated significantly with NA, as predicted.

TABLE 1 Correlations Between the 16PF and Subjective Well-Being

	PA		NA		SWLS	
	1	2	1	2	1	2
16PF	1	2	1	2	1	2
Warmth	.34	.39	-.31	-.20	.21	.18
Intelligence	.07	-.18	.08	.01	.05	-.34
Emotional stability	.36	.20	-.45	-.24	.23	.15
Surgency	.52	.22	.01	.23	.39	.23
Social boldness	.48	.33	-.10	-.02	.38	.22
Tender-minded	-.14	.06	.34	.26	-.17	.02
Imaginative	.08	-.26	-.16	-.28	.07	-.14
Shrewdness	-.06	.21	.15	.11	-.06	.02
Guilt proneness	-.31	-.06	.48	.43	-.07	-.15
Self-sufficient	-.46	-.12	.16	-.09	-.25	-.20
Self-control	.14	-.23	-.24	-.06	.10	-.08
Tense	-.24	.00	.46	.28	-.20	-.16
Extraversion	.55	.28	-.08	.17	.35	.33
Anxiety	-.36	-.02	.54	.44	-.23	-.13
Tough poise	.23	.15	.28	.02	.14	.29

Note: For N = 74, correlations of .19 are significant at the .05 level and .26 at the .01 level. For N = 62, the respective values are .22 and .28. Only those variables that correlated significantly with at least one well-being dimension in one sample are shown.

1 = Sample 1; N = 74.

2 = Sample 2; N = 62.

Next, step-wise multiple regression analyses were performed using PA, NA, and life satisfaction as the criterion variables and selected personality dimensions as the predictor variables in Sample 1. The results of the regression analyses are given in Table 3.

Correcting for shrinkage using the Wherry formula resulted in a multiple correlation of .56 for positive affect, .69 for negative affect, and .66 for life satisfaction. In order to better estimate the degree of shrinkage, a cross-validation was performed. The regression weights derived from Sample 1 were applied to the personality variables in Sample 2, and then correlations were computed between the predicted and observed PA, NA, and life satisfaction scores in Sample 2. The multiple correlations obtained in this way from Sample 2 were .29 for PA ($p < .05$), .45 for negative affect ($p < .01$), and .37 for life satisfaction ($p < .05$), indicating that there was a substantial amount of shrinkage in prediction from one sample to another.

DISCUSSION

The data presented in this study allow the formation of personological profiles of individuals who differ in the three dimensions of subjective well-

TABLE 2 Correlations Between Additional Personality Measures and Subjective Well-Being

	<i>PA</i>		<i>NA</i>		<i>SWLS</i>	
	1	2	1	2	1	2
EASI-III						
Emotionality	-.16	.29	.40	.42	-.23	-.03
Activity	.00	.21	.03	.10	.17	.25
Sociability	.44	.49	-.11	.21	.55	.30
Impulsivity	.00	.04	.25	.30	-.21	-.02
EPI						
Extraversion	.31	.32	-.05	-.01	.29	.30
Sociability	.29	.49	-.08	-.10	.34	.40
Impulsivity	.05	.08	.18	.30	.01	-.07
Neuroticism	-.31	-.14	.61	.33	-.31	-.08
ICL						
Mana-Autoc	.25	.23	-.04	.10	.04	.37
Resp-Hyper	.08	.19	.26	-.11	.04	.23
Coop-Overc	.35	.21	.03	-.07	.09	.22
Self-Masoc	-.21	.04	.40	.04	-.39	-.32
Rebe-Distr	-.30	-.07	.66	.40	-.47	-.19
Aggr-Sadis	-.02	-.14	.39	.39	-.15	-.18
Self-Esteem	.08	.02	-.31	-.32	.26	.26
Self-Ideal Discr.	-.23	-.05	.23	.33	-.27	-.07
Locus of Control	-.21	.03	.39	.20	.33	.01

being. Individuals who experience much positive affect typically are extraverted (sociable but not impulsive), active, enthusiastic, tend toward managerial-autocratic and cooperative interpersonal styles, but are not necessarily higher in self-esteem or do they experience less anxiety than low PA individuals. Individuals for whom negative affect predominates are emotionally reactive, interpersonally sensitive, tense, worrisome, impulsive, aggressive and distrustful in their interactions with others, are low in self-esteem, and tend to believe that outcomes are not under their own influence. This characterization is similar to Watson and Clark's (1984) description of an individual high in negative affectivity. Individuals who are satisfied with their lives are warm and sociable, active, have a positive view of themselves, and tend not to be anxious or critical of others in their interpersonal relations. It appears that those characteristics that are most related to positive affect tend to be interpersonal competencies whereas the correlates of negative affect tend to be more internal states such as anxiety and emotionality. Life satisfaction seems to involve some combination of interpersonal competencies and internal states (e.g., sociability and self-esteem).

TABLE 3 Multiple Regression Analyses

<i>Variable</i>	<i>R</i>	<i>R</i> ²	<i>R</i> ² Increase	<i>F</i>	<i>p</i>
Predicting Positive Affect					
Surgency	.54	.30	.30	29.12	< .001
Social boldness	.58	.34	.04	4.16	< .04
Activity	.61	.37	.03	3.43	< .05
Predicting Negative Affect					
Rebellious/Distrustful	.41	.17	.17	23.74	< .001
Anxious ^a	.58	.33	.16	13.59	< .001
Emotionality	.71	.51	.18	16.48	< .001
Predicting Life Satisfaction					
Sociability ^b	.58	.34	.34	32.80	< .001
Self-Esteem	.67	.45	.11	12.83	< .001
Activity	.69	.47	.02	3.47	< .05

a. Anxious = a composite of the second-order 16PF Anxiety scale and the EPI Neuroticism scale.

b. Sociability = a composite of the EASI-III Sociability scale and the EPI sociability items.

The present results appear to be quite compatible with the model formulated by Costa and McCrae (1980). They argued that two sets of personality traits influence positive and negative affect separately. Not only did we find that levels of positive and negative affect are uncorrelated across persons, but we also found that different sets of personality variables predicted each.

We have reason to believe that response bias had only a minimal impact on the results of this study. The subjects' identities were concealed through the use of pseudonyms, thus decreasing any motivation to report more happiness than was actually experienced. Second, Diener and Larsen (1984), as well as Johnston and Hackman (1977) have shown that social desirability and extreme response sets contribute negligible amounts of variance in the repeated use of mood questionnaires. We have used a number of artifact measures to check on number usage as a response style, and these are described in detail in Diener and Larsen (1984) and Diener and Emmons (1984). Of course we believe that in future research it would be desirable to supplement self-reports with behavioral indicators of affect, such as the frequency of smiling (see Weinstein, 1982). As in most correlational research, the direction of influence between personality factors and subjective well-being is unclear. For example, are sociable individuals predisposed toward feeling positive affect or does feeling positive affect lead to increments in sociable feelings and actions? Future research should be directed toward clarifying the direction of influence between personality dispositions and SWB. Epstein (1983) has proposed that such directional claims

could be made by comparing within-subject versus between-subject correlations between personality measures and affect or SWB indicators. In addition, time series analyses of such data may help clarify the directionality of influence between affect and personality.

The large cross-sample shrinkage in the multiple Rs found in the present study suggests that a large portion of variance in affect predictable from personality may often be specific to the sample. Thus to some extent subjective well-being may be the result of different factors in different groups. However, there may be ubiquitous or universal influences such as self-esteem and neurotic tendencies that influence affect across populations. Cross-sample shrinkage should be kept in mind when comparing correlations between affect and personality with those between affect and socioeconomic factors, because the latter correlations are usually based on much larger and broader samples. Therefore, there is likely to be more capitalization on chance in the personality studies and more shrinkage when extensions to new populations are made.

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